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# UNDERGRADUATE BULLETIN



## Mission and Vision

### Mission and Vision

The University of Akron, a publicly assisted metropolitan institution, strives to develop enlightened members of society. It offers comprehensive programs of instruction from associate through doctoral levels; pursues a vigorous agenda of research in the arts, sciences, and professions; and provides service to the community. The university pursues excellence in undergraduate education and distinction in selected areas of graduate instruction, inquiry, and creative activity.

### Commitments and vision:

The University of Akron maintains a commitment to:

- Provide learning opportunities for the full spectrum of students;
- Create and discover knowledge through basic and applied research and creative activity;
- Create a learning environment with emphasis on a full collegiate experience for each student, leading to opportunities for cognitive, social, and personal development;

- Provide a forum for the examination of ideas and concepts and the generation of scholarly dialogue within the established principles of academic freedom;
- Encourage opportunities for interdisciplinary study and research;
- Strive for continued improvement of the teaching and learning environment;
- Prepare career oriented people for professional leadership roles in regional, national, and international organizations and institutions; and

Offer appropriate educational and professional services to its various constituencies within available resources and established continuing education and outreach philosophies.

The University of Akron maintains a vision of:

- Being a leading public urban research university with an unsurpassed commitment to community engagement with a great American legacy city, Akron;
- Being an opportunity university for all types of learners;
- Being known as a willing and constructive partner of business, government and the non-profit sector;
- Being an institution of innovation willing to invest in unique approaches that increase opportunity for students and reduce costs;
- Being a diverse and inclusive university. We will sponsor an array of superb academic programs relevant to the future;
- Making and keeping promises to our students, ourselves and this community.

## About the Bulletin

### Inquiries

**For questions regarding admission information, campus tours, and transfer of credits, contact:**

Office of Admissions (<https://www.uakron.edu/admissions/undergraduate/>)

The University of Akron  
Akron, OH, 44325-2001  
(330) 972-7100  
toll-free (800) 655-4884  
Fax (330) 972-7022

**For questions regarding financial aid, scholarships, contact:**

Office of Student Financial Aid (<https://www.uakron.edu/finaid/>)

The University of Akron  
Akron, OH 44325-6211  
(330) 972-7032  
toll-free (800) 621-3847  
Fax (330) 972-7139

**For questions regarding Athletics (<https://www.uakron.edu/campus-life/athletics/>), contact:**

Director of Athletics  
The University of Akron  
Akron, OH, 44325-5201  
(330) 972-7080



**For questions regarding registration, records, graduation, degree progress reporting, and scheduling, contact:**

Office of the University Registrar (<https://www.uakron.edu/registrar/>)  
The University of Akron  
Akron, OH 44325-6208  
(330) 972-8300

**For questions regarding student advocacy and support, off-campus living and commuter resources, parents and family association, and financial wellness education, contact:**

ZipAssist (<https://www.uakron.edu/zipassist/>)  
The University of Akron  
Akron, OH 44325-6208  
(330) 972-7272

**For questions regarding Graduate study, contact:**

Graduate School (<https://www.uakron.edu/gradsch/>)  
The University of Akron  
Akron, OH 44325-2101  
(330) 972-7663

The University switchboard number is (330) 972-7111

## Accredited By

Higher Learning Commission  
Dr. Barbara Gellman-Danley, President  
230 S. LaSalle Street, Suite 7-500  
Chicago, IL 60604  
800-621-7440

[www.hlcommission.org](http://www.hlcommission.org) (<http://www.hlcommission.org>)

For information on accreditation or to review copies of the accreditation documents, contact the

The Office of Academic Affairs  
The University of Akron  
Buchtel Hall 102  
Akron, OH 44325-4703  
(330) 972-7593.

## Equal Education and Employment Institution

Operating under nondiscrimination provisions of Titles VI, VII, of the Civil Rights Act of 1964 as amended and IX of the Educational Amendments of 1972 as amended. Executive Order 11246, Vocational Rehabilitation Act Section 504, Vietnam Era Veterans' Readjustment Act, and Americans with Disabilities Act of 1990 as related to admissions, treatment of students, and employment practices. It is the policy of this institution that there shall be no unlawful discrimination against any individual at The University of Akron because of race, color, creed, sex, age, national origin, handicap/disability or status as a veteran. The University of Akron will not tolerate sexual harassment of any form in its programs and activities, and prohibits discrimination on the basis of sexual orientation in employment and admissions. The nondiscrimination policy applies to all students, faculty, staff, employees and applicants. Complaints of possible sex and other forms of discrimination should be referred to:

## EEO/AA Office

Tami Zupkow Hannon, Director, EEO/AA  
ASB, Room 138A  
Akron, OH 44325-4709  
Phone: (330) 972-7300  
<http://www.uakron.edu/hr/eeoaa/>

## Title IX

The University of Akron has designated Dean of Students Mike Strong to serve as Interim Title IX Coordinator. As coordinator Dean Strong is responsible for the coordination of response to Title IX which must be consistent with expectations outlined in the Title IX the Education Amendments of 1972 and part 106 of title 34 of the Code of Federal Regulations. Dean Strong is responsible for notify applicants for admissions, applicants for employment, students, parents or legal guardians of elementary and secondary school students, employees, and all unions or professional organizations holding collective bargaining or professional agreements with the University of Akron that Dean Strong is serves as the Interim Coordinator. Dean Strong can be reached at:

Michael Strong  
Dean of Students  
Interim Title IX Coordinator  
Student Union 152  
The University of Akron  
Akron, OH 44325-4612  
email: [mstrong@uakron.edu](mailto:mstrong@uakron.edu)  
phone: 330-760-0764

Reports of misconduct can be made at any time to Dean Strong and may be submitted in person, by mail, by telephone, or by email. Reports may also be submitted online on the University of Akron Title IX page at <https://www.uakron.edu/title-ix> (<https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uakron.edu%2Ftitle-ix&data=04%7C01%7Csjj%40uakron.edu%7C03bc9872a3c24850b12508d931963fa8%7Ce8575dedd7f94ecea4aa0b32991ae%7C0%7C0%7C637595343639797008%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IklhaWwiLCJ000&sdata=0LXCg9ddufPEITtGIJDbJU7vti8%2FHJns6SuplYtVJXc%3D&reserved=0>).

The University of Akron does not discriminate on the basis of sex as is prohibited by Title IX as well as by the University of Akron Gender Based Misconduct and Title IX Policy and Protocol as well as the University of Akron Anti-Discrimination and Harassment Policy. The prohibition on discrimination extends to admissions and employment. Inquiries about the application of Title IX should be directed to Dean Strong.

## Issues for Students

Mary Lu Gribshaw  
Deputy Title IX Coordinator for Athletics  
JAR 183  
(330) 972-7080

Dale Adams  
Director, Student Conduct and Community Standards  
Simmons Hall 302  
(330) 972-2580

## Issues for Employees

Michelle Smith  
Deputy Title IX Coordinator for Employees

ASB 125C  
(330) 972-5146

or

The United States Department of Education, Office of Civil Rights Policy Information on the Americans with Disabilities Act may be obtained from

ADA Coordinator  
ASB 125C  
Phone: (330) 972-5146

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## Disclaimer

While every effort is made to provide accurate and up-to-date information, the University reserves the right to change, without notice, statements in the Bulletin series which include, but are not limited to rules, policies, procedures, fees, curricula, courses, programs, activities, services, schedules, course availability, or other matters. For example, programs may be modified due to limited resources or facilities, unavailability of faculty, insufficient enrollment, or other such reasons as the University deems necessary.

Please note that editions of this Undergraduate Bulletin prior to 1994-95 were titled the "General Bulletin."

The *Undergraduate Bulletin* is published once each year by the Office of Academic Affairs (<https://www.uakron.edu/provost/>), Buchtel Hall 102.

## Academic Calendar

The Official Academic Calendar is maintained by the Office of the University Registrar (<https://www.uakron.edu/registrar/>) and can be viewed at <https://www.uakron.edu/registrar/dates/acadcal.dot>.

## Important Policies

### Intent to Enroll and New Student Orientation

<http://www.uakron.edu/nso/>  
330-972-2622  
[orientation@uakron.edu](mailto:orientation@uakron.edu)

The University of Akron requires students to submit a University Confirmation fee, indicating their acceptance of the University's offer of Admission. When the Confirmation fee is received, students are emailed their advising and registration information. This email includes their assigned dates to attend New Student Orientation: Advising & Registration, a full-day program where they meet with their academic advisors and register for classes. They also receive full student access to UA's online services, where they can view their class schedules, financial information, grades, and more.

All new freshmen, transfer students and students enrolled in the College Credit Plus program are required to attend an orientation program prior to registering for classes at The University of Akron. Orientation is conducted as a one-day program and is intended to ensure a smooth transition to the University. Content includes information about academic policies and procedures, registration and financial responsibility, and campus involvement. The weekend before classes begin, all incoming freshmen are also encouraged to attend New Roo Weekend for a

chance to meet the rest of the incoming class, find out about campus involvement opportunities, and kick off their Akron Experience.

Multiple orientation sessions are available prior to each term and are filled on a first come, first served basis. Students should attend orientation as soon as possible to ensure the best selection of classes.

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## Veterans Policy

To prevent institutions from charging late fees or preventing facility access to student veterans due to delay in payment for Chapter 33 Post 9/11 and Chapter 31 Vocational Rehab by the Department of Veterans Affairs (VA), the following policy has been adopted. While this policy addendum takes effect August 1, 2019, The University of Akron is already complying with the requirements.

### SEC. 103. DISAPPROVAL FOR PURPOSES OF EDUCATIONAL ASSISTANCE PROGRAMS OF DEPARTMENT OF VETERANS AFFAIRS OF CERTAIN COURSES OF EDUCATION THAT DO NOT PERMIT INDIVIDUALS TO ATTEND OR PARTICIPATE IN COURSES PENDING PAYMENT.

- (a) In General.—Section 3679 of title 38, United States Code, is amended by adding at the end the following new subsection:
- “(e) (1) Notwithstanding any other provision of this chapter, beginning on August 1, 2019, a State approving agency, or the Secretary when acting in the role of the State approving agency, shall disapprove a course of education provided by an educational institution that has in effect a policy that is inconsistent with any of the following:
- “(A) A policy that permits any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33 of this title and ending on the earlier of the following dates:
- “(i) The date on which the Secretary provides payment for such course of education to such institution.
- “(ii) The date that is 90 days after the date on which the educational institution certifies for tuition and fees following receipt from the student such certificate of eligibility.
- “(B) A policy that ensures that the educational institution will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement of a payment to be provided by the Secretary under chapter 31 or 33 of this title.
- “(2) For purposes of this subsection, a covered individual is any individual who is entitled to educational assistance under chapter 31 or 33 of this title.
- “(3) The Secretary may waive such requirements of paragraph (1) as the Secretary considers appropriate.
- “(4) It shall not be inconsistent with a policy described in paragraph (1) for an educational institution to require a covered individual to take the following additional actions:
- “(A) Submit a certificate of eligibility for entitlement to educational assistance not later than the first day of a course of education for which the individual has indicated the individual wishes to use the individual's entitlement to educational assistance.
- “(B) Submit a written request to use such entitlement.

- “(C) Provide additional information necessary to the proper certification of enrollment by the educational institution.”.
- (b) Prompt Payments.—
- (1) IN GENERAL.—The Secretary of Veterans Affairs shall take such actions as may be necessary to ensure that the Secretary makes a payment to an educational institution on behalf of an individual, who is entitled to educational assistance under chapter 31 or 33 of title 38, United States Code, and who is using such assistance to pursue a program of education at the educational institution, not later than 60 days after the date on which the educational institution certifies to the Secretary the applicable tuition and fees for the individual.
- (2) SEMIANNUAL REPORTS.—Not later than May 1 and October 1 of each year, the Secretary shall submit to the Committee on Veterans' Affairs of the Senate and the Committee on Veterans' Affairs of the House of Representatives a semiannual report summarizing any cases in which the Secretary failed to make a payment described in paragraph (1) within the period set forth in such paragraph and an explanation for each delayed disbursement of payment.
- (c) Rule Of Construction.—In a case in which an individual is unable to meet a financial obligation to an educational institution due to the delayed disbursement of a payment to be provided by the Secretary under chapter 31 or 33 of such title and the amount of such disbursement is less than anticipated, nothing in section 3679(e) of such title, as added by subsection (a), shall be construed to prohibit an educational institution from requiring additional payment or imposing a fee for the amount that is the difference between the amount of the financial obligation and the amount of the disbursement.

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## Registration

Each term it is necessary for a student to select courses, formally register for those courses, and pay the appropriate tuition and fees. The student must register online via My Akron (<https://my.uakron.edu>).

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## Student Enrollment Status

Status	Undergraduate Credit Hours
Full-time	12 or more hours
Three Quarter-time	9-11.99 hours
Half-time <sup>1</sup>	6-8.99 hours
Less than half-time	0.5-5.99 hours

<sup>1</sup> For undergraduate aid award determination purposes, a three-quarter time student is registered for 9 - 11.99 credit hours.

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## Level Status

The level status of each student is dependent upon the number of credit hours earned. The University identifies the following levels:

Will be Designated	If the Overall Credits Earned Are
Senior	90 credit hours or higher
Junior	60-89.99 credit hours earned
Sophomore	30-59.99 credit hours earned
Freshman	0-29.99 credit hours earned

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## Class Attendance

A student is expected to attend all class meetings for which the student is registered. A student may be dropped from a course in the current term by the dean if absence is repeated and the instructor recommends this action; a student can gain re-admission only with permission of both the instructor and the dean. A student dropped from a course receives an “F” which counts as work attempted whenever grade- point ratio calculations are made.

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## Student Schedules

### Adding Courses

A student must register for a course in person before the end of the fifth day of a fall or spring term or online via My Akron (<http://my.uakron.edu>) by the end of the first week of the fall or spring term. Additions to the student's official schedule may be made through the end of the 14th calendar day, only with the permission of the student's advisor, instructor and dean or the dean's designee. Students who have not registered by this deadline may not attend classes or receive credit for the course. This deadline applies to all regular 15-week courses offered in the fall and spring semesters. For all other courses, such as those in intersessions or those which are flexibly scheduled, courses must be added, with appropriate permission, by the date when 20% of the course has been completed. Details regarding Summer session information may be found via My Akron (<http://my.uakron.edu>).

### Withdrawal Policy

Students may drop a course through the second week (14th calendar day) of a semester or proportionally equivalent dates during summer session, intersession, and other course terms. No record of the course will appear on the student's transcript. For purposes of this policy, the course term for a course that meets during a semester but begins after the beginning of a semester and/or ends before the end of a semester begins when its class meetings begin and ends when its class meetings end. After the 14-day drop period, and subject to the limitations below, students may withdraw from a course through the seventh week (49th calendar day) of a semester or proportionally equivalent dates during summer session, intersession, or other course terms. A course withdrawal will be indicated on the student's official academic record by a grade of “WD.”

Withdrawing from courses – applicable to undergraduate students only:

1. Undergraduate students may not withdraw from the same course more than twice. If a student attempts to withdraw from a course after having withdrawn from it twice before, he or she will continue to be enrolled in the course and will receive a grade at the end of the semester.
2. Full-time undergraduate students who need to withdraw from all courses for documented extraordinary non-academic reasons (e.g., medical treatment or convalescence, military service) must obtain the permission of the dean of their college. For purposes of this paragraph:
  - a. Students are considered full-time if they were enrolled as full-time students at the beginning of the term; and
  - b. Courses for which the student has completed all requirements are excluded.
3. Undergraduate students who withdraw from two courses either before they have earned 30 credits, or after they have earned 30 credits but before they have earned 60 credits, are not permitted to

register for additional courses until they have consulted with their academic advisor. The purpose of this consultation is to discuss the reasons for the course withdrawals and to promote satisfactory academic progress by helping students develop strategies to complete their courses successfully.

4. Except as otherwise provided below, undergraduate students may not withdraw from more than four courses before they have earned 60 credits. Students who attempt to withdraw from more than four courses will continue to be enrolled in those courses and will receive grades at the end of the semester.
5. Undergraduate students who need to withdraw from all courses for documented extraordinary, non-academic reasons (e.g. medical treatment or convalescence, military service) may, after consulting with their advisor, submit a written petition to the dean of their college requesting that these courses not be counted toward the four-course withdrawal limit. The dean may grant this permission if, in the dean's judgment, it is consistent with the best academic interests of the student and the best interests of the University.
6. After the withdrawal deadline, undergraduate students may submit a written petition to the dean of their degree-granting college requesting partial withdrawal, after the deadline, for documented extraordinary, non-academic reasons (e.g. medical treatment or convalescence, military service). If the student is not yet admitted to a degree-granting college, the withdrawal request must be submitted to the dean of the student's intended degree-granting college or, if the student has not declared a major, from the deans of the degree-granting colleges offering the courses. The dean may grant this permission if the dean finds that the withdrawal is necessitated by circumstances beyond the student's control and is consistent with the best academic interests of the student and the best interests of the university.
7. Undergraduate students who have reached the four-course withdrawal limit as noted above may, after consultation with their advisor, submit a written petition to the dean of their college seeking permission to withdraw from one or more additional courses. The dean may grant this permission if the dean finds that the withdrawal is necessitated by circumstances beyond the student's control and is consistent with the best academic interests of the student and the best interests of the University.
8. Withdrawing from a course shall not reduce or prevent a penalty accruing to a student for misconduct as defined in the Student Code of Conduct.
9. Degree granting colleges may supplement this policy with more stringent requirements.

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## Campus Free Speech and Use of Outdoor Space

<https://www.uakron.edu/ogc/outdoor-space-reservation/>  
 (https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uakron.edu%2Fogc%2Foutdoor-space-reservation%2F&data=04%7C01%7Csjj%40uakron.edu%7Cc58bda22ade84d135e4d08d8e9753d3d%7Ce8575dedd7f94ecea4aa0b32991aeedd%7C0%7C0%7C637516037035454607%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luZmZiLCJBTiI6IkhWwllCjEveC9m%9B%7C1000&sdata=ub1MYcItSurM%2BYouY9N5v%2FGnSvRd27PJzrcyPRiofAg%3D&reserved=0)

## Student Complaint Policy

It is the policy of The University of Akron to provide the best educational experience possible for all students consistent with all applicable Board of Trustees' rules and university policies. In the event that a student, student family member, faculty, staff or others have a complaint about conduct or the educational experience while at the university, a complaint may be made either in writing or verbally. For more information, please refer to the Office of Academic Affairs' Student Complaint Policy page (<https://www.uakron.edu/oaa/faculty-affairs/student-complaint-policy/>).

## Alternative Credit Options

### American Council on Education's College Credit Recommendation

The University of Akron accepts the American Council on Education's College Credit Recommendation Service (CREDIT). CREDIT evaluates and makes credit recommendations for formal educational programs and courses offered by organizations including business and industry, labor unions, professional and voluntary associations, schools, training suppliers, and government agencies. The program is based on the idea that it is sound educational practice for colleges and universities to grant academic credit for high-quality educational programs conducted by a variety of organizations provided that the courses are appropriate to an individual's degree program.

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## Advanced Placement Credit

Many high schools offer Advanced Placement courses through the auspices of the College Board for possible college credit. By enrolling in such courses during high school and taking Advanced Placement Tests at the end of each course, high school students may earn undergraduate credits in a number of different academic areas. The test score required to receive credit for a specific course is determined by the Ohio Board of Regents and the Academic Department in which the course resides. Credits earned in this manner are included in the total credits completed, but are not assigned a grade and do not count in the quality point ratio, class standing, or graduation with honors calculations. Students must take the tests while they are in high school. It is not possible to take the tests once a student is enrolled at The University of Akron. The State of Ohio, working through the University System of Ohio, has initiated policies to facilitate the ease of transition from high school to college as well as between and among Ohio's public colleges and universities.

### Beginning in the Fall term 2009

- Students obtaining an Advanced Placement (AP) exam score of 3 or above will be awarded the aligned course(s) and credits for the AP exam area(s) successfully completed
- Credits received will be applied toward graduation and may also satisfy a General Education or Honor's Distribution requirement if the course(s), to which the AP area is equivalent, fulfill those requirements
- If an equivalent course is not available for the AP exam area completed, elective or area credit will be awarded in the appropriate academic discipline and will be applied toward graduation where such elective credit options exist within the academic major
- Additional courses or credits may be available when a score of 4 or 5 is obtained. Award of credit for higher score values varies depending on the institution and academic discipline

- In academic disciplines containing highly dependent sequences (Sciences, Technology, Engineering and Mathematics –STEM) students are strongly advised to confer with their academic advisor to ensure they have the appropriate foundation to be successful in advanced coursework within the sequence. The advanced placement table (p. 21) lists disciplines available for Advanced Placement Testing, scores required for accruing credit and courses at The University of Akron for which credit may be earned. For questions concerning Advanced Placement Credit call 330-972-8300 or email registrar@uakron.edu.

## Bypassed Credit

Certain courses designated in this bulletin by each academic department enable a student to earn "bypassed" credit. A degree-seeking undergraduate student who completes such a course with a grade of "C" or better is entitled to credit for designated prerequisite courses which carry the same departmental code number. Credit for such bypassed prerequisite shall be included in the total credits earned, but shall not count in the quality point ratio, or class standing, or hours required for graduation with honors. Bypassed credit is not awarded on the basis of completing a course either by credit-by-examination or credit/noncredit. Bypassed credit may not be used to repeat for change of grade.

## Buchtel College of Arts and Sciences

Discipline	Course	Prerequisite	Approved for Bypass Credit
English	ENGL:112	ENGL:111	ENGL:111
	ENGL:222	ENGL:111	ENGL:111
Geography and Planning	GEOG:314	GEOG:310	GEOG:310
	GEOG:442	GEOG:305	GEOG:305
	GEOG:444	GEOG:305	GEOG:305
Mathematics	MATH:152	MATH:151	MATH:151
	MATH:153	MATH:152	MATH:151 & MATH:152
	MATH:154	MATH:153	MATH:152 & MATH:153
	MATH:161	MATH:151	MATH:151
	MATH:261	MATH:153	MATH:152 & MATH:153
	MATH:255	MATH:154	MATH:152, MATH:153 & MATH:154
	MATH:356	MATH:255	MATH:154 & MATH:255
Theoretical and Applied Mathematics	MATH:210	MATH:145	MATH:145
	MATH:215	MATH:145 or MATH:149	MATH:145
	MATH:221	MATH:149	MATH:149
	MATH:222	MATH:221	MATH:149 & MATH:221
	MATH:223	MATH:222	MATH:221 & MATH:222
Modern Languages	MODL:102	MODL:101	MODL:101

	MODL:201	MODL:102	MODL:101 & MODL:102
	MODL:202	MODL:201	MODL:101, MODL:102 & MODL:201
	MODL:422	MODL:202	MODL:101, MODL:102, MODL:201 & MODL:202
	MODL:497	MODL:202	MODL:101, MODL:102, MODL:201 & MODL:202
Arabic	ARAB:102	ARAB:101	ARAB:101
	ARAB:201	ARAB:102	ARAB:101 & ARAB:102
	ARAB:202	ARAB:201	ARAB:101, ARAB:102 & ARAB:201
	ARAB:301, ARAB:302, ARAB:303 or ARAB:304	ARAB:202	ARAB:101, ARAB:102, ARAB:201 & ARAB:202
Chinese	CHIN:102	CHIN:101	CHIN:101
	CHIN:201	CHIN:102	CHIN:101 & CHIN:102
	CHIN:202	CHIN:201	CHIN:101, CHIN:102 & CHIN:201
	CHIN:301, CHIN:302, CHIN:303 or CHIN:304	CHIN:202	CHIN:101, CHIN:102, CHIN:201 & CHIN:202
Latin	LATN:102	LATN:101	LATN:101
	LATN:201	LATN:102	LATN:101 & LATN:102
	LATN:202	LATN:201	LATN:101, LATN:102 & LATN:201
	LATN:303 or LATN:304	LATN:202	LATN:101, LATN:102, LATN:201, & LATN:202
French	FREN:102	FREN:101	FREN:101
	FREN:201	FREN:102	FREN:101 & FREN:102
	FREN:202	FREN:201	FREN:101, FREN:102 & FREN:201

	FREN:300, FREN:301, FREN:302, FREN:303, FREN:304, FREN:305, FREN:306, FREN:311, FREN:312, FREN:351, FREN:402, FREN:403, FREN:422	FREN:202	FREN:101, FREN:102, FREN:201 & FREN:202		JAPN:422	JAPN:202	JAPN:101, JAPN:102, JAPN:201 & JAPN:202
	FREN:352	FREN:351	FREN:101, FREN:102, FREN:201 & FREN:202				
	FREN:413	FREN:301 or FREN:302	FREN:101, FREN:102, FREN:201 & FREN:202				
	FREN:427	FREN:305 or FREN:306	FREN:101, FREN:102, FREN:201 & FREN:202				
German	GERM:102	GERM:101	GERM:101				
	GERM:201	GERM:102	GERM:101 & GERM:102				
	GERM:201 or GERM:202	GERM:102	GERM:101, GERM:102 & GERM:201				
	GERM:301, GERM:302 or GERM:422	GERM:202	GERM:101, GERM:102, GERM:201 & GERM:202				
	GERM:403 or GERM:404	GERM:302	GERM:101, GERM:102, GERM:201 & GERM:202				
	GERM:406 or GERM:407	GERM:302	GERM:101, GERM:102, GERM:201 & GERM:202				
Italian	ITAL:102	ITAL:101	ITAL:101				
	ITAL:201	ITAL:102	ITAL:101 & ITAL:102				
	ITAL:202	ITAL:201	ITAL:101, ITAL:102 & ITAL:201				
	ITAL:301 or ITAL:302	ITAL:202	ITAL:101, ITAL:102, ITAL:201 & ITAL:202				
Japanese	JAPN:102	JAPN:101	JAPN:101				
	JAPN:201	JAPN:102	JAPN:101 & JAPN:102				
	JAPN:202	JAPN:201	JAPN:101, JAPN:102 & JAPN:201				
				Russian	RUSS:102	RUSS:101	RUSS:101
					RUSS:201	RUSS:102	RUSS:101 & RUSS:102
					RUSS:202	RUSS:201	RUSS:101, RUSS:102 & RUSS:201
				Spanish	SPAN:102	SPAN:101	SPAN:101
					SPAN:112	SPAN:101 or SPAN:111	SPAN:101
					SPAN:201	SPAN:102	SPAN:101 & SPAN:102
					SPAN:202	SPAN:201	SPAN:101, SPAN:102 & SPAN:201
					SPAN:211	SPAN:102 or SPAN:112	SPAN:101 & SPAN:102
					SPAN:212	SPAN:201 or SPAN:211	SPAN:101, SPAN:102 & SPAN:201
					SPAN:301, SPAN:302, SPAN:303, SPAN:307 or SPAN:308	SPAN:202	SPAN:101, SPAN:102, SPAN:201 & SPAN:202
					SPAN:340	two of SPAN:301, SPAN:302 & SPAN:303	SPAN:101, SPAN:102, SPAN:201 & SPAN:202
					SPAN:305	SPAN:301, SPAN:302 and SPAN:303	SPAN:101, SPAN:102, SPAN:201 & SPAN:202
					SPAN:401, SPAN:402 or SPAN:403	SPAN:301 & {SPAN:302 or SPAN:303}	SPAN:101, SPAN:102, SPAN:201 & SPAN:202
					SPAN:404, SPAN:405, SPAN:406 or SPAN:410	SPAN:340 and two of SPAN:401, SPAN:402 & SPAN:403	SPAN:101, SPAN:102, SPAN:201 & SPAN:202
					SPAN:409, SPAN:411, SPAN:412, SPAN:416, SPAN:418, SPAN:419, SPAN:422, SPAN:425, SPAN:427 or SPAN:430	SPAN:407 or SPAN:408	SPAN:101, SPAN:102, SPAN:201 & SPAN:202

	SPAN:431 or SPAN:432	two of SPAN:401, SPAN:402 & SPAN:403	SPAN:101, SPAN:102, SPAN:201 & SPAN:202
Statistics	STAT:262	STAT:261	STAT:261

## College of Business Administration

Discipline	Course	Prerequisite	Approved for Bypass Credit
Economics	ECON:400	ECON:201	ECON:201
	ECON:410	ECON:200	ECON:200

## College of Engineering and Polymer Science

Discipline	Course	Prerequisite	Approved for Bypass Credit
Computer Information Systems	CISS:202	CISS:201	CISS:201
	CISS:203	CISS:201	CISS:201
	CISS:204	CISS:202 & CISS:203	CISS:201, CISS:202, & CISS:203
	CISS:400	CISS:201 & CISS:204	CISS:201, CISS:202, CISS:203, & CISS:204
Computer Science	CPSC:210	CPSC:209	CPSC:209

## College of Health Professions

Discipline	Course	Prerequisite	Approved for Bypass Credit
American Sign Language	SLPA:102	SLPA:101	SLPA:101
	SLPA:201	SLPA:101 & SLPA:102	SLPA:101 & SLPA:102
RN-BSN Sequence (Limited to Licensed Registered Nurses)	NURS:336		NURS:211, NURS:217, NURS:230, NURS:350, NURS:360, NURS:370, NURS:380 & NURS:410

## College Level Examination Program (CLEP)

The College Level Examination Program (CLEP) is a national program that offers the opportunity to obtain college credit by examination. A variety of experiences may have prepared a person to earn college credit. The qualifying score required to receive credit for a specific course is determined by the Ohio Board of Regents and the Academic Department in which the course resides. Credits earned in this manner are included in the total credits completed but are not assigned a grade and do not count in the quality-point ratio, class standing, or graduation with honors calculations. Credit by CLEP may not be used to repeat for change of grade. CLEP tests are administered Monday through Friday. Contact the

Counseling Center at 330-972-7084 to make a reservation and/or obtain more information.

The following guidelines outline the terms under which The University of Akron will accept the results of specified CLEP tests for college credit. Students may also refer to their academic advisor to determine whether CLEP and other prior learning exams apply toward University of Akron transcripts.

## Business

CLEP Test	Qualifying Score	Course(s) Awarded	Credit Awarded
Financial Accounting	65 and above	ACCT:201 Principles of Accounting I	3
Introduction to Business Law	57 and above	BLAW:220 Legal and Social Environment of Business	3
Principles of Management	50 and above	COMM:107 Essentials of Management Technology	3
Principles of Marketing	65 and above	MKTG:205 Marketing Principles	3

## Composition and Literature

CLEP Test	Qualifying Score	Course(s) Awarded	Credit Awarded
American Literature	53 and above	OT36 Arts and Humanities Credit	3
Analyzing and Interpreting Literature	59 and above	OT36 Arts and Humanities Credit	3
College Composition/College Composition Modular	50 and above	Remediation Free 0 (Ready to Enroll in ENGL:111)	0
English Literature	63 and above	OT36 Arts and Humanities Credit	3

## History and Social Sciences

CLEP Test	Qualifying Score	Course(s) Awarded	Credit Awarded
American Government	56-62	OT36 Social Sciences Credit	4
	63 and above	POLIT:100 Government and Politics in the United States	4
History of the United States I	61 and above	HIST:250 U.S. History to 1877	4
History of the United States II	57 and above	HIST:251 U.S. History since 1877	4

Human Growth and Development	58 and above	PSYC:230 Developmental Psychology	4
Humanities	55 and above	OT36 Arts and Humanities Credit	3
Introduction to Educational Psychology	62 and above	OT36 Social Sciences Credit	3
Introductory Psychology	55 and above	PSYC:100 Introduction to Psychology	3
Introductory Sociology	56 and above	SOCIO:100 Introduction to Sociology	3
Principles of Macroeconomics	56 and above	ECON:201 Principles of Macroeconomics	3
Principles of Microeconomics	57 and above	ECON:200 Principles of Microeconomics	3
Social Sciences and History	63 and above	OT36 Social Science Credit	3
Western Civilizations I	55 and above	HIST:210 Humanities in the Western Tradition from Ancient Times to 1500	4
Western Civilizations II	54 and above	OT36 Arts and Humanities Credit	3

**Modern Languages**

CLEP Test	Qualifying Score	Course(s) Awarded	Credit Awarded
French Language	55 to 64	FREN:101 Beginning French I	4
		FREN:102 Beginning French II	4
	65 and above	FREN:101 Beginning French I	4
		FREN:102 Beginning French II	4
		FREN:201 Intermediate French I	3
		FREN:202 Intermediate French II	3
German Language	59 to 66	GERM:101 Beginning German I	4

		GERM:102 Beginning German II	4
	67 and above	GERM:101 Beginning German I	4
		GERM:102 Beginning German II	4
		GERM:201 Intermediate German I	3
Spanish Language	56 to 62	SPAN:101 Beginning Spanish I	4
		SPAN:102 Beginning Spanish II	4
	63 to 67	SPAN:101 Beginning Spanish I	4
		SPAN:102 Beginning Spanish II	4
		SPAN:201 Intermediate Spanish I	3
	68 and above	SPAN:101 Beginning Spanish I	4
		SPAN:102 Beginning Spanish II	4
		SPAN:201 Intermediate Spanish I	3
		SPAN:202 Intermediate Spanish II	3
Spanish Language with Writing	50 to 57	SPAN:101 Beginning Spanish I	4
		SPAN:102 Beginning Spanish II	4
	58 to 64	SPAN:101 Beginning Spanish I	4
		SPAN:102 Beginning Spanish II	4
		SPAN:201 Intermediate Spanish I	3
	65 and above	SPAN:101 Beginning Spanish I	4



SPAN:102 4  
Beginning  
Spanish II

SPAN:201 3  
Intermediate  
Spanish I

SPAN:202 3  
Intermediate  
Spanish II

## Science and Mathematics

CLEP Test	Qualifying Score	Course(s) Awarded	Credit Awarded
Biology	50 and above	OT36 Natural Sciences without Labs Credit	3
Calculus	64 and above	MATH:221 Analytic Geometry-Calculus	4
Chemistry	50 to 65	OT36 Natural Sciences without Labs Credit	3
	66 and above	CHEM:151 Principles of Chemistry I	3
College Algebra	63 and above	MATH:145 Algebra for Calculus	4
College Mathematics	63 and above	OT36 Mathematics, Statistics, and Logic Credit	3
Precalculus	61 and above	MATH:149 Precalculus	4
Information Systems	50 and above	General Elective	3

## Credit by Examination

A student interested in earning credits by special examination may do so with the permission of the dean of the student's college and the dean of the college in which a particular course is offered and by payment of the special examination fee. The grade obtained in such an examination is recorded on the student's permanent academic record. Credit by examination is not permitted in the semester before graduation. Credit by examination may not be used to repeat for change of grade.

## DANTES Subject Standardized Tests (DSST)

DSST is a means of obtaining college credit by examination. As of 3/3/2022, the results of DSST can count for UA credit. When you pass a DSST exam, course credit will be added to your UA transcript if you select UA as the score recipient. Unofficial transcripts can be processed immediately only if the exam is taken at the CTC. Office score reports will be processed when received from Prometric (DSST).

DSST	UA Equivalent	Passing Score
Business Ethics and Society	3 credits of General Elective	400
Business Mathematics	General Education Mathematics, Statistics, and Logic credit	400
Human Resource Management	HRM:341	400
Introduction to Business Management	3 credits of General Elective	400
Information Systems	ISM:310	400
Money and Banking	FIN:338	400
Organizational Behavior	MGMT:302	400
Personal Finance	FPL:200	400
Principles of Finance	FIN:301	400
Principles of Supervision	COMM:330	400
Ethics in Technology	PHIL:241	400
Introduction to World Religions	3 credits of General Elective	400
Technical Writing	3 credits of General Elective	400
Principles of Advanced English Composition	3 credits of General Elective	400
Principles of Public Speaking	3 credits of General Elective	400
Fundamentals of College Algebra	MATH:145	400
Math for Liberal Arts	MATH:135	400
Principles of Statistics	STAT:261 & STAT:262	400
Astronomy	General Education Natural Science credit	400
Environmental Science (formerly Environment and Humanity: The Race to Save the Planet)	GEOL:211	400
Health & Human Development (formerly Here's to Your Health)	3 credits of General Elective	400
Intro to Geology	GEOL:100	400
A History of the Vietnam War	3 credits of General Elective	400
Art of the Western World	3 credits of General Elective	400
Criminal Justice	CRJU:100	400
Foundations of Education	3 credits of General Elective	400
Fundamentals of Counseling	3 credits of General Elective	400
General Anthropology	3 credits of General Elective	400

History of the Soviet Union (formerly the Rise and Fall of the Soviet Union)	3 credits of General Elective	400
Intro to Geography	GEOG:100	400
Introduction to Law Enforcement	CRJU:105	400
Lifespan Developmental Psychology	PSYC:230	400
Substance Abuse (formerly Drug and Alcohol Abuse)	3 credits of General Elective	400
The Civil War and Reconstruction	3 credits of General Elective	400
Computing and Information Technology Elective (formerly Introduction to Computing)	3 credits of General Elective	400
Fundamentals of Cybersecurity	CISS:134	400

## International Baccalaureate

The University of Akron recognizes the academic quality of the International Baccalaureate (IB) program and the efforts of students enrolled in IB coursework by awarding advanced-standing credit for the completion of the IB Diploma. Higher level examination scores are considered for departmental credit in the areas of French, Spanish, German, Geography, Latin, Greek, Economics, Chemistry, History, English, Social Anthropology, Mathematics, Music and Physics. Although minimum scores for the awarding of credit may vary by subject area, generally scores of four or five are sufficient. No credit is awarded for IB Subsidiary examinations, with the exception of some foreign languages.

IB Test	IB Score	Course No	Title	Hours
Biology	HL 4	BIOL:103	Natural Science: Biology	4
	HL 5	BIOL:111	Principles of Biology I	4
	HL 6 or 7	BIOL:111 & BIOL:112	Principles of Biology I & II	8
	HL 6 or 7	BIOL:100 & BIOL:103	Introduction of Botany & Natural Science: Biology (for non-science majors)	8
Business Management	HL 4 or higher	BUSN:101	Business Issues in a Connected World	3
Chemistry	HL 4	CHEM:101 or CHEM:152	Chemistry for Everyone or Principles of Chemistry I Lab	4 or 1

	HL 5	CHEM:110 & CHEM:111	Introduction to General, Organic & Biochemistry I & Lab	4
	HL 6	CHEM:151 & CHEM:152	Principles of Chemistry I & Lab	4
	HL 7	CHEM:151, CHEM:152 & CHEM:153	Principles of Chemistry I & Lab and Principles of Chemistry II	7
Economics	HL 4 or higher	ECON:244	Introduction to Economic Analysis	3
English A1	HL 4 or 5	ENGL:111	English Composition I	3
	HL 6 or 7	ENGL:111 & ENGL:112	English Composition I & II	6
English A: Language & Literature	HL 4 or 5	ENGL:111	English Composition I	3
	HL 6 or 7	ENGL:111 & ENGL:112	English Composition I & II	6
English A: Literature	HL 4 or 5	ENGL:111	English Composition I	3
	HL 6 or 7	ENGL:111 & ENGL:112	English Composition I & II	6
French	SL 4	FREN:101	Beginning French I	4
	SL 5	FREN:101 & FREN:102	Beginning French I & II	8
	SL 6	FREN:101, FREN:102 & FREN:201	Beginning French I & II and Intermediate French I	11
	SL 7	FREN:101, FREN:102, FREN:201 & FREN:202	Beginning French I & II and Intermediate French I & II	14
German	SL 4	GERM:101	Beginning German I	4
	SL 5	GERM:101 & GERM:102	Beginning German I & II	8
	SL 6	GERM:101, GERM:102 & GERM:201	Beginning German I & II and Intermediate German I	11

	SL 7	GERM:101, GERM:102, GERM:201 & GERM:202	Beginning German I & II and Intermediate German I & II	14
History of the Americas	HL 4 or 5	HIST:250	United States History to 1877	3
	HL 6 or 7	HIST:250 & HIST:251	United States History to 1877 & United States History since 1877	6
History of Europe/ME	HL 4 or higher	HIST:289	World Civilization: Middle East	2
Mathematics	HL 4 or higher	MATH:145	College Algebra	4
Physics	HL 5	PHYS:291	Elementary Classical Physics I	4
	HL 6 or 7	PHYS:291 & PHYS:292	Elementary Classical Physics I & II	8
Psychology	HL 4 or higher	PSYC:100	Introduction to Psychology	3
Social & Cultural Anthropology	HL 4 or higher	ANTH:101	Human Cultures	3
Spanish	SL 4	SPAN:101	Beginning Spanish I	4
	SL 5	SPAN:101 & SPAN:102	Beginning Spanish I & II	8
	SL 6	SPAN:101, SPAN:102 & SPAN:201	Beginning Spanish I & II and Intermediate Spanish I	11
	SL 7	SPAN:101, SPAN:102, SPAN:201 & SPAN:202	Beginning Spanish I & II and Intermediate Spanish I & II	14

## Military Credit

Ohio GI promise, created through Executive Order 2008-17S in July 2008, calls for all University System of Ohio institutions to participate in the Servicemembers Opportunity Colleges (SOC) Consortium. This membership guarantees that The University of Akron will work with veterans to award military credit towards degree completion.

Veteran students should request a copy of their credit from The American Council on Education (ACE) and send this transcript to the Transfer Student Services Center, Akron, Ohio 44325-2001. The credit will be evaluated and posted to the student's record upon enrollment at The University of Akron. Students should consult with academic advisors to

determine how military training, experience and coursework credits can be used most effectively in meeting degree requirements.

## The College Credit Plus Program (CCP)

The College Credit Plus program was created by the Ohio Legislature to allow secondary school students in Ohio to enroll in a college or university. The program is available to qualified public, nonpublic and home schooled students in grades 7-12.

Through the College Credit Plus Program, students are eligible to enroll in classes at The University of Akron during the summer, fall and spring semesters. It is recommended that prospective students work with their school counselors to discuss specific school policies.

### About the program

Advantages for college-level learning during 7th through 12th grade:

- Strengthening the middle and high school curriculum and raising expectations for high school students.
- Reducing the total number of credits needed to be earned in college.
- Potentially reducing the time required for the baccalaureate and costs to parents, students and taxpayers.
- Enriching the undergraduate college curriculum by lessening the need to take introductory courses, consequently allowing earlier entry into advanced courses, facilitation of double majors, or permitting additional electives.

CCP pays the following for students receiving dual credit:

- All tuition and fees applied to the bill at the time of registration.
- Registration fees including changes in a UA course schedule if changes are due to secondary school schedule conflicts initiated by a UA administrator.
- All required textbooks for public and nonpublic school students. (Home schooled students are responsible for purchasing textbooks.) Please note: All required textbooks must be returned to the secondary school at the end of the term.

## Admission Requirements

### Eligibility

**Preferred Requirements for 7th through 12th grade applicants:**

- 3.0 unweighted cumulative high school GPA (ACT or SAT test scores are optional)
- The Office of Admissions will evaluate the cumulative GPA and ACT or SAT scores to determine college readiness for applicants.
- Applicants without a 3.0 unweighted cumulative high school GPA MUST meet at least one of the minimum College Readiness Standards in Writing, Reading or Mathematics as determined by the Ohio Department of Higher Education.

### Application Deadlines

Application deadline for the summer and fall semesters is **April 15**. The application deadline for the spring semester is **October 15**.

### Steps to apply for admission

<https://uakron.edu/admissions/undergraduate/ccp/>

1. Complete the Undergraduate Admission Application; select College Credit Plus as the type of student.

2. Complete the Signature Page. Signatures are required by the student, parent or guardian, and the school counselor.
3. Submit an official school transcript. For applicants in the 7th grade, the transcript should include 6th and 5th grades. For applicants in the 8th grade, transcripts should include 7th and 6th grades.
4. Submit ACT or SAT test score results (testing must be completed prior to the application deadline).

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## College Tech Prep

College Tech Prep is value-added education. This program integrates technical training and college preparatory academics beginning in high school and continuing through a minimum of an associate degree. College Tech Prep prepares students for highly skilled occupations supported by regional business and industry in the areas of business, information, health and engineering technologies. The College Tech Prep pathway is a skill-building curriculum jointly designed by business, high schools and colleges. The pathway links the high school experience with a college degree program.

For additional information regarding the College Tech Prep programs, contact Kelly Herold at 330-972-8832.

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## Transfer Credit

The Transfer Credit policy is subject to the appropriate approval process and as such may be subject to change.

The University of Akron awards transfer credit for non-remedial, non-developmental college-level coursework completed with earned grades of "D-" or better at an institution of higher learning in the United States which is fully accredited or has been granted candidacy status by one of the following regional institutional accrediting agencies: Middle States Association of Colleges and Schools, Commission on Higher Education; New England Association of Schools and Colleges, Commission on Institutions of Higher Education; North Central Association of Colleges and Schools, Higher Learning Commission; Northwest Commission on Colleges and Universities; Southern Association of Colleges and Schools, Commission on Colleges; Western Association of Schools and Colleges, Accrediting Commission for Community and Junior Colleges; Western Association of Schools and Colleges, Accrediting Commission for Senior Colleges and Universities. A summary of the number of credits accepted will be listed on the official academic transcript along with the name of the institution and dates of attendance.

No grade point value will appear on the record, and no grade point average will be calculated for the coursework listed. Transfer students shall be accorded the same class standing and other privileges as all other students on the basis of the number of credits earned. All residency requirements must be completed successfully at the receiving institution prior to the granting of a degree.

CLEP or Advanced Placement Credit posted on transcripts from previously attended regionally accredited Ohio colleges and universities is eligible for credit at The University of Akron. CLEP or Advanced Placement credit posted on transcripts from previously attended regionally accredited non-Ohio colleges and universities is not eligible for credit at The University of Akron. Students must present original documentation attesting to scores earned prior to receiving alternative credit considerations.

The University of Akron does not guarantee that a transfer student automatically will be admitted to all majors, minors or fields of concentration at the institution. For courses that have been taken at an institution of higher education noted in the reference above, the dean of the college in which the student intends to obtain a degree will specify which courses, other than General Education courses, will apply toward the degree requirements of the University. The office responsible for transfer student services will specify which courses listed will apply toward the General Education program requirements.

Transfer students must meet all University of Akron residency requirements.

For other types of transferable credit, please see the section on Alternative Credit Options.

Note: Official transcripts and/or documentation for alternative credit can be obtained from the following web sites:

- [www.acenet.edu](http://www.acenet.edu) (<http://www.acenet.edu>)
- [www.collegeboard.com](https://www.collegeboard.com) (<https://www.collegeboard.com>)
- [www.collegeboard.org/clep](https://www.collegeboard.org/clep) (<https://www.collegeboard.org/clep/>)
- [www.getcollegecredit.com](https://www.getcollegecredit.com) (<https://www.getcollegecredit.com>)

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## Ohio Transfer 36 (OT36)

The Ohio Transfer 36 (OT36) is a set of courses that students can complete to satisfy a portion, or all, freshman/sophomore-level general education requirements. The OT36 consists of a minimum of 36 credit hours. All students should complete the Core Foundations courses which include English composition and oral communication; mathematics, statistics and logic; arts and humanities; social and behavioral sciences; and natural sciences. Additional elective hours from among the five areas make up the total hours for a completed Ohio Transfer Module. Students are guaranteed the transfer of OT36 credits among Ohio's public colleges and universities and equitable treatment in the application of credits to admissions and degree requirements. The Ohio Transfer 36 (OT36) Approved Courses Reporting System ([https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/9dd1cc64-e0ad-435e-89ae-504afe08c173/5b5a7127-5d3d-40ea-8914-85cae16740e9/?%3Adisplay\\_count=n%3AshowVizHome=n%3Aorigin=viz\\_share\\_link%3AisGuestRedirectFromVizportal=y%3Aembed=y](https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/9dd1cc64-e0ad-435e-89ae-504afe08c173/5b5a7127-5d3d-40ea-8914-85cae16740e9/?%3Adisplay_count=n%3AshowVizHome=n%3Aorigin=viz_share_link%3AisGuestRedirectFromVizportal=y%3Aembed=y)) will help you identify Transfer Module approved courses that are guaranteed to transfer and apply toward related general education subject areas at Ohio's public colleges and universities.

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## Transfer Assurance Guides (TAGs)

Transfer Assurance Guides (TAGs) comprise Transfer Module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's higher-education system. A number of area-specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams.

TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisors at the institution to which a student wishes to transfer should also be consulted during the transfer

process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged.

Students should also check with their department about which courses have received approval from ODHE as part of the Transfer Assurance Guides program. Only those courses that have received such approval can be guaranteed transfer credit as part of the major. Students may also check with the ODHE TAG website.

## Career-Technical Credit Transfer (CT)<sup>2</sup> / CTAG

Students who successfully complete specified high school technical programs are eligible to have technical credit transfer to Ohio public colleges and universities. This transfer of credit is described in the Career Technical Assurance Guides (<https://transfercredit.ohio.gov/students/student-programs/career-technical-assurance-guides/>) (CTAG). Students are guaranteed the transfer of applicable credits among Ohio's public colleges and universities and equitable treatment in the application of credits to admissions and degree requirements. (CT)<sup>2</sup> helps more high school and adult career-technical students to go to college and enter with college credit; technical credit saves students money and time; and Ohio business and industry will benefit from more employees with higher education and advanced skills.

To access credit, students will need to request a Verification Form be sent by the career-institution from which they attended/graduated to The University of Akron. For more information on how to access (CT)<sup>2</sup> credit visit the Ohio Department of Higher Education Career-Technical Credit Transfer (CT)<sup>2</sup> Verification of Course/Program Completion Form webpage.

## Ohio Guaranteed Transfer Pathways (OGTPs)

The Ohio Guaranteed Transfer Pathways (OGTPs) are designed to provide a clearer path to degree completion for students pursuing associate degrees who plan to transfer to an Ohio public university to complete their bachelor's degree. The OGTPs also constitute an agreement between public community colleges and universities confirming that community college courses meet major preparation requirements and will be counted and applied toward the bachelor's degree. Students still must meet all university program admission requirements.

A student who completes all of the coursework within a major-specific Ohio Guaranteed Transfer Pathway (OGTP) will be eligible to earn an Associate of Arts, Associate of Science, or Associate of Applied Science degree from an Ohio public community college. The completion of the OGTP will be recorded on the student's transcript, and upon transfer to an Ohio public university, all coursework taken as part of the pathway will transfer to the university toward the completion of a bachelor's degree in an equivalent field. Explore the pathways by visiting the ODHE Guaranteed Transfer Pathways (<https://transfercredit.ohio.gov/students/student-programs/ogtp/pathways-search-tool/>) website.

## Credit Appeals

**Appeals Regarding Transfer Credit:** Following the evaluation of the student's transcript from another higher education institution or from

ACE, the student will meet with an adviser or the Assistant Director of the Transfer & Adult Students Enrollment Center, to discuss how the credits apply. Should the student not be satisfied with the way the credits articulate to UA graduation requirements, the student may submit an appeal in writing to the Director of the Transfer and Adult Student Enrollment Center. The appeal should include a statement of why the appeal is being made, and should provide a syllabus of the course that the student completed, or the material that was covered in the course, including the amount of time devoted to various topics. The learning objectives of the course of study should also be provided.

If the appeal concerns transfer credit related to discipline requirements, the written appeal will be reviewed by the Chair/Director of the relevant department/school, or dean, as appropriate. If the appeal concerns transfer credit related to General Education requirements, the appeal will be directed to the appropriate individual at the University responsible for the General Education program.

**Appeals Regarding UA Credit:** In the event that a student seeks redress for the way in which a UA course is applied to General Education or degree requirements, students should first speak with their adviser. Any subsequent appeal would then be directed to the appropriate individual at the University (e.g. the person responsible for the General Education program, or the relevant Chair/Director/Dean).

Final appeals in all cases will be handled by the Office of Academic Affairs.

## AP Information

AP Exam	AP Score	Course(s) Awarded	Credits Awarded
Art History	3	ART:210, Visual Arts Awareness	3
	4 or 5	ART:101, Survey of History of Art I	3
		ART:102, Survey of History of Art II	3
Biology	3 or 4	BIOL:103, Natural Science: Biology	4
	5	BIOL:111, Principles of Biology I	4
Calculus AB	3, 4, or 5	MATH:221, Analytic Geometry-Calculus I	4
Calculus BC <sup>1</sup>	3, 4, or 5	MATH:221, Analytic Geometry-Calculus I	4
		MATH:222, Analytic Geometry-Calculus II	4
Capstone Research	3, 4, or 5	General Elective	3
Capstone Seminar	3, 4, or 5	General Elective	3

Chemistry	3	CHEM:101, Chemistry for Everyone	4	English Language 3, 4, or 5 and Composition	ENGL:111, English Composition I	3	
	4 or 5	CHEM:151, Principles of Chemistry I	3	English Literature 3, 4, or 5 and Composition	ENGL:111, English Composition I	3	
		CHEM:152, Principles of Chemistry I lab	1	English Language 3, 4, or 5 and Composition & English Literature and Composition	ENGL:111, English Composition I <b>and</b>	3	
Chinese Language and Culture	3	CHIN:101, Beginning Chinese I	4		ENGL:112, English Composition II	3	
		CHIN:102, Beginning Chinese II	4	Environmental Science	3, 4, or 5	GEOL:211, Introduction to Environmental Science	3
	4	CHIN:101, Beginning Chinese I	4	European History	3	General Education Social Sciences	3
		CHIN:102, Beginning Chinese II	4		4 or 5	General Education Social Sciences	3
		CHIN:201, Intermediate Chinese I	3			General Education Humanities	3
	5	CHIN:101, Beginning Chinese I	4	French Language	3	FREN:101, Beginning French I	4
		CHIN:102, Beginning Chinese II	4			FREN:102, Beginning French II	4
		CHIN:201, Intermediate Chinese I	3		4	FREN:101, Beginning French I	4
		CHIN:202, Intermediate Chinese II	3			FREN:102, Beginning French II	4
Comparative Government & Politics	3	General Education Social Science	3			FREN:201, Intermediate French I	3
	4 or 5	POLIT:300, Comparative Politics	4		5	FREN:101, Beginning French I	4
Computer Science A	5	CPSC:209, Computer Science I	4			FREN:102, Beginning French II	4
		CPSC:210, Computer Science II	4			FREN:201, Intermediate French I	3
Computer Science AB	5	CPSC:209, Computer Science I	4			FREN:202, Intermediate French II	3
		CPSC:210, Computer Science II	4	French Literature	3	FREN:101, Beginning French I	4
Computer Science Principles	3, 4, or 5	CPSC:101, Essentials of Computer Science	3				

		FREN:102, Beginning French II	4			ITAL:102, Beginning Italian II	4
		FREN:201, Intermediate French I	3			ITAL:201, Intermediate Italian I	3
	4 or 5	FREN:101, Beginning French I	4		5	ITAL:101, Beginning Italian I	4
		FREN:102, Beginning French II	4			ITAL:102, Beginning Italian II	4
		FREN:201, Intermediate French I	3			ITAL:201, Intermediate Italian I	3
		FREN:202, Intermediate French II	3			ITAL:202, Intermediate Italian II	3
German Language	3	GERM:101, Beginning German I	4	Japanese Language and Culture	3	JAPN:101, Beginning Japanese I	4
		GERM:102, Beginning German II	4			JAPN:102, Beginning Japanese II	4
	4	GERM:101, Beginning German I	4		4	JAPN:101, Beginning Japanese I	4
		GERM:102, Beginning German II	4			JAPN:102, Beginning Japanese II	4
		GERM:201, Intermediate German I	3			JAPN:201, Intermediate Japanese I	3
	5	GERM:101, Beginning German I	4		5	JAPN:101, Beginning Japanese I	4
		GERM:102, Beginning German II	4			JAPN:102, Beginning Japanese II	4
		GERM:201, Intermediate German I	3			JAPN:201, Intermediate Japanese I	3
		GERM:202, Intermediate German II	3			JAPN:202, Intermediate Japanese II	3
Human Geography	3, 4, or 5	GEOG:275, Geography of Cultural Diversity	2	Latin	3	LATN:101, Beginning Latin I	4
Italian Language and Culture	3	ITAL:101, Beginning Italian I	4			LATN:102, Beginning Latin II	4
		ITAL:102, Beginning Italian II	4		4	LATN:101, Beginning Latin I	4
	4	ITAL:101, Beginning Italian I	4			LATN:102, Beginning Latin II	4
						LATN:201, Intermediate Latin I	3
					5	LATN:101, Beginning Latin I	4

		LATN:102, Beginning Latin II	4		4 or 5	MUSIC:121, Theory and Musicianship I	4
		LATN:201, Intermediate Latin I	3		Physics 1	PHYS:160, Technical Physics: Mechanics	4
		LATN:202, Intermediate Latin II	3		Physics 2	PHYS:163, Technical Physics: Electricity and Magnetism	2
Latin Literature	3	LATN:101, Beginning Latin I	4			PHYS:164, Technical Physics: Heat and Light	2
		LATN:102, Beginning Latin II	4				
	4	LATN:101, Beginning Latin I	4		Physics B	PHYS:160, Tech Physics: Mech	4
		LATN:102, Beginning Latin II	4			PHYS:163, Tech Physics: Electricity & Magnetism/lab	2
	5	LATN:101, Beginning Latin I	4			PHYS:164, Tech Physics: Heat and Light/lab	2
		LATN:102, Beginning Latin II	4		Physics C: Electricity & Magnetism	PHYS:292, Elem. Classical Physics II	4
		LATN:201, Intermediate Latin I	3		Physics C: Mechanics	PHYS:291, Elem. Classical Physics I	4
		LATN:202, Intermediate Latin II	3		Psychology	PSYC:100, Introduction to Psychology	3
Latin: Vergil	3	LATN:101, Beginning Latin I	4		Spanish Language	SPAN:101, Beginning Spanish I	4
		LATN:102, Beginning Latin II	4			SPAN:102, Beginning Spanish II	4
	4	LATN:101, Beginning Latin I	4			SPAN:101, Beginning Spanish I	4
		LATN:102, Beginning Latin II	4			SPAN:102, Beginning Spanish II	4
		LATN:201, Intermediate Latin I	3			SPAN:201, Intermediate Spanish I	3
	5	LATN:101, Beginning Latin I	4			SPAN:101, Beginning Spanish I	4
		LATN:102, Beginning Latin II	4			SPAN:102, Beginning Spanish II	4
		LATN:201, Intermediate Latin I	3			SPAN:201, Intermediate Spanish I	3
		LATN:202, Intermediate Latin II	3			SPAN:101, Beginning Spanish I	4
Macroeconomics	3, 4 or 5	ECON:201, Principles of Macroeconomics	3			SPAN:102, Beginning Spanish II	4
Microeconomics	3, 4 or 5	ECON:200, Principles of Microeconomics	3			SPAN:201, Intermediate Spanish I	3
Music Theory	3	General Elective	3				



		SPAN:202, Intermediate Spanish II	3
Spanish Literature	3	SPAN:101, Beginning Spanish I	4
		SPAN:102, Beginning Spanish II	4
		SPAN:201, Intermediate Spanish I	3
	4 or 5	SPAN:101, Beginning Spanish I	4
		SPAN:102, Beginning Spanish II	4
		SPAN:201, Intermediate Spanish I	3
		SPAN:202, Intermediate Spanish II	3
Statistics	3, 4 or 5	STAT:261, Introductory Statistics I	2
		STAT:262, Introductory Statistics II	2
Studio Art: 2-D Design	3, 4 or 5	ART:xxx, Studio Elective	3
Studio Art: 3-D Design	3, 4 or 5	ART:xxx, Studio Elective	3
Studio Art: Drawing	3, 4 or 5	ART:xxx, Studio Elective	3
U.S. Government & Politics	3, 4, or 5	POLIT:100, Government & Politics in the US	3
U.S. History	3, 4, or 5	HIST:250, United States History to 1877	3
		HIST:251, United States History Since 1877	3
World History	3	General Education Humanities	3
	4 or 5	General Education Humanities	6

## Grade Policy and Credit Grades and the Grading System

A student will receive grades on various types of classroom performance during the progress of most courses and a final grade at the end of the term. At the end of the term, grades are available online. Individual tests are usually graded with percentage or letter marks, but official academic records are maintained with a grade-point system. Overall scholastic averages are computed on a quality point ratio basis, wherein the sum of the quality points earned is divided by the sum of the credits attempted. The quality point value per credit for each letter grade is shown in the following tables:

Grade	Quality Points	Key
A	4.0	
A-	3.7	
B+	3.3	
B	3.0	
B-	2.7	
C+	2.3	
C	2.0	
C-	1.7	
D+	1.3	
D+	0.0	Graduate Courses Only
D	1.0	
D	0.0	Graduate Courses Only
D-	0.7	
D-	0.0	Graduate Courses only
F	0.0	Failure
I	0.0	Incomplete
IP	0.0	In Progress
AUD	0.0	Audit
CR	0.0	Credit
NC	0.0	No Credit
WD	0.0	Withdrawn
NGR	0.0	No grade reported
INV	0.0	Invalid grade reported
PI	0.0	Permanent Incomplete
R	0.0	Repeat

**Notes:** Prior to Fall Semester 1973 cumulative grade point averages included transfer work. A student cannot raise a grade through re-examination.

**I - Incomplete:** Indicates that the student has done passing work in the course but that some part of the work is, for good and acceptable reason, not complete at the end of the term. Failure to make up the omitted work satisfactorily by the end of exam week of the following term, not including summer sessions, converts the "I" to an "F." When the work is satisfactorily completed within the allotted time, the "I" is converted to whatever grade the student has earned. It is the responsibility of the student to make up the incomplete work. The faculty member should submit the new grade to the Office of the University Registrar via the grade roster, which is available through MyAkron. If the instructor wishes to extend the "I" grade beyond the following term for which the student

<sup>1</sup> Students who intend to major in a STEM discipline and earn a 3 on the Calculus BC exam should consult with an advisor prior to accepting the credits

is registered, the instructor should submit an incomplete extension form, which is available through MyAkron, before the end of the semester.

**IP - In Progress:** Indicates that the student has not completed the scheduled coursework during the semester because the nature of the course does not permit completion within a single semester, such as work toward a thesis. An "IP" grade should be assigned only in graduate courses.

**PI - Permanent Incomplete:** Indicates that the student's instructor and the dean with jurisdiction over the course may for special reason authorize the change of an incomplete "I" to a permanent incomplete "PI."

**WD - Withdraw:** Indicates that the student registered for the course but withdrew officially after the 15th day of the term.

**NGR - No Grade Reported:** Indicates that, at the time grades were processed for the current issue of the record, no grade had been reported by the instructor.

**INV - Invalid:** Indicates the grade reported by the instructor of the course was improperly noted and thus unacceptable for proper processing.

**Special Credit/No Credit grading basis for Spring 2020 only:**

**CRX - Credit:** Indicates that the student earned a letter grade of C- or higher and was awarded credit. Grade does not impact the GPA

**NCX - No Credit:** Indicates that the student earned a letter grade of D+ or lower and was not awarded credit. Grade does not impact the GPA

## Credit/Noncredit Option (undergraduate and post baccalaureate only)

A student who takes a course on a "credit" or "noncredit" (CR/NC) basis, and who earns a grade equivalent to "A" through "C-," shall receive credit ("CR") for the course and have the grade, "CR," placed on the permanent record; a grade equivalent to "D+" through "F" will be recorded with the noncredit grade, "NC."

For the baccalaureate degree, no more than 16 credits of non-language courses and no more than 20 credits in total (including language courses) are permitted to be taken on a CR/NC basis. For the associate degree, no more than eight credits of non-language courses and no more than 10 credits in total, including language courses, is permitted.

A student is eligible for the CR/NC option if the student has:

- Completed 50% of the number of credits required for a degree
- A GPA of at least 2.30
- The consent of an advisor

The CR/NC option is available only at the time of registration for the course. After the first week of the term or first two days of a summer session, the status cannot be changed. The University Registrar will notify the instructor of those students utilizing the CR/NC option by means of the final class list.

Courses that can be taken on a CR/NC basis:

- One free elective (not in major field) course per term
- Any first- and/or second-year foreign language course at any time, regardless of grade-point average

Courses that cannot be taken CR/NC:

- Any General Education courses
- Courses required by colleges and departments of all undergraduate majors

Courses for which "CR" is awarded will be counted as hours completed only; courses for which "NC" is awarded shall not be counted as hours attempted; in neither case shall "CR" or "NC" be considered in calculating grade-point average, but in both instances the course shall be entered on the student's official academic record. A student may repeat a course for credit (CR), or a grade (A-F) after receiving a grade of "NC." A college may designate in the printed schedule, on an annual basis, a course as not available to be taken on a "CR/NC" basis. A student taking a course on a "CR/NC" basis is expected to meet the full requirements of the course as required by the instructor.

## Changing Grades

A student who wishes to appeal a final grade must initiate the procedure by the end of the fifth week of the spring semester for grades received during the preceding fall semester, and by the fifth week of the fall semester for grades received during the preceding spring or summer semesters. For grades earned during the semester in which a student graduates, grade appeals must be initiated and completed before the degree is posted to the student's permanent record. Students must first review the matter with the instructor. If the matter is not resolved, or if the instructor is not available, the student must submit a written appeal to the department chair or school director.

Re-examination for the purpose of raising a grade is not permitted.

## Audit Policy

A student choosing to audit a course must elect to do so at the time of registration. The student pays the enrollment fee and may be expected to do all the work prescribed for students taking the course for credit, except that of taking the examination. Any faculty member may initiate withdrawal for a student not meeting these expectations.

## Importance of Grades

Grades determine whether a student is either eligible or ineligible to remain at the University. Eligibility to participate in the 200-plus registered student organizations and other co-curricular activities is dependent on the student's maintenance of good academic standing at the University. A student who has not been placed on probation or dismissed from the University is deemed to be in good academic standing. Some selective organizations such as honoraries and varsity athletics require special eligibility criteria. On the basis of grades, a student receives opportunities to take additional courses to accelerate academic progress. Acceptance for admission to a college depends on the approval of the dean of the college which the student chooses to enter and on the student's academic performance to date.

## President's and Dean's List

Undergraduate students who earn 12 letter-graded credits or more and earn a grade point average of 4.0 are eligible for inclusion on the President's List. Undergraduate students who earn at least 6 but fewer than 12 letter-graded credits and earn a grade point average of 4.0 are eligible for inclusion on the Part-Time President's List. This is an undergraduate academic honor recognizing excellence in the classroom prior to the completion of the degree. Developmental Program

course load hours do not carry academic credit toward a degree and are not considered in determining President's List honors but do count in computing a student's course load for financial aid or student employment, and are used in probation and dismissal decisions.

Undergraduate students who earn 12 letter-graded credits or more and earn a grade point average of 3.5 or better are eligible for inclusion on the Dean's List of their respective college. Undergraduate students who earn at least 6 but fewer than 12 letter-graded credits and earn a grade point average of 3.5 or better are eligible for inclusion on the Part-Time Dean's List of their respective college. This is an undergraduate academic honor recognizing excellence in the classroom prior to the completion of the degree. Developmental Program course load hours do not carry academic credit toward a degree and are not considered in determining Dean's List honors but do count in computing a student's course load for financial aid or student employment, and are used in probation and dismissal decisions.

## Probation-Dismissal

Probation is a warning to the student whose academic record is unsatisfactory and who is in danger of being dismissed from the university. A student may, however, be dismissed without having previously been placed on probation.

An undergraduate student whose cumulative GPA falls below 2.0 is placed on academic probation and is subject to such academic action, including but not limited to mandatory repeat for change of grade, credit hour restriction, and student success programming, as may be imposed by the dean of the student's degree-granting college, or by the dean's designee.

An undergraduate student whose cumulative grade point average falls below 2.0 for consecutive semesters (excluding summer semesters) will be evaluated at the end of each of the second and third consecutive semesters for dismissal from the university by the dean of the student's degree-granting college, or by the dean's designee. The dean may retain an undergraduate student for the third or fourth consecutive semester if the term grade point average has improved significantly but the cumulative grade point average remains below 2.0. An undergraduate student whose cumulative grade point average falls below 2.0 for each of four consecutive semesters will be dismissed from the university.

An undergraduate student not yet enrolled in a degree-granting college will be evaluated for dismissal, according to the criteria above, by the head of the division of student success, or by the head's designee. Decisions regarding retention or dismissal will be made by the dean of a student's degree-granting college, or by the dean's designee.

To be eligible for readmission, previously dismissed students must have either:

- completed at a regionally accredited college or university at least 18 credit hours, with a 2.5 GPA or higher, that will apply toward a degree at the University of Akron or,
- waited a minimum of two calendar years from the date of dismissal and submitted a written statement outlining the causes of poor academic performance and steps taken toward improvement.

Students readmitted on probation will be evaluated for retention or dismissal immediately following the first semester after readmission, with the option to retain for one additional semester if the term GPA has improved significantly but the cumulative GPA remains below 2.0.

## Repeating Courses

Any course may be repeated twice by an undergraduate student subject to the following conditions:

- To secure a grade ("A-F") a student may repeat a course in which the previously received grade was a "C-," "D+," "D," "D-," or "F," "CR," "NC," or "AUD." Registrations under the "CR/NC" option are subject to the restrictions in the "CR/NC" policy
- To secure a "CR," a student may repeat a course in which the previously received grade was a "NC." Registrations under the "CR/NC" option are subject to the restrictions in the "CR/NC" policy
- To secure a grade ("A-F"), "CR," "NC," a student may repeat a course in which the previously received grade was an "AUD." Registrations under the "CR/NC" option are subject to the restrictions in the "CR/NC" policy
- A graded course ("A-F") may not be repeated for a grade of "AUD"
- A course taken under the "CR/NC" option may not be repeated for a grade of "AUD"
- With the dean's permission, a student may substitute another course if the previous course is no longer offered. Courses must be repeated at The University of Akron
- Grades for all attempts at a course will appear on the student's official academic record
- Only the grade for the last attempt will be used in the grade-point average
- For purposes of this section, credit for this course or its equivalent will apply only once toward meeting degree requirements

## Course Substitution Policy

The University of Akron recognizes that some students may be unable to satisfy specific coursework requirements for degree completion. Therefore, the student may request a course substitution. A course substitution is not appropriate when the specific course(s) is essential to the degree being sought and a substitution would represent a fundamental alteration of the program. The process for requesting a course substitution is as follows:

The student contacts his/her advisor and requests a course substitution.

- If the request(s) is based on a disability, the Office of Accessibility shall be consulted and shall assist the advisor and student in the facilitation of a solution
- If the advisor approves, an appropriate substitution is agreed upon and the recommendation with rationale is forwarded to the department chair or school director for approval
- The student shall be advised of and sign an informed consent form which is forwarded with the recommendation and which states the following:
  - You have been advised that this substitution is only applicable in this college and is not binding on any other college within the University
  - You understand that a course substitution may ultimately affect further studies at this university or other colleges and universities including graduate studies
- If the department chair or school director approves, the recommendation with rationale is forwarded to the Dean
- If the Dean approves, the office of the Dean shall notify all parties concerned

- Approved course substitutions should be entered in the Degree Progress Report by the appropriate office
- If the Dean disapproves, the student may request a review by the Senior Vice President and Provost and Chief Operating Officer

## Academic Reassessment Due to Leave of Absence

To be eligible for academic reassessment due to leave of absence, a student shall:

- Have not attended The University of Akron for at least two calendar years. A semester or summer session in which the student received all "WD" grades cannot be counted as part of the separation period; and
- Have re-enrolled and maintained a grade point average of 2.5 or higher for the first 24 letter-graded ("A" through "F") hours attempted at The University of Akron; and
- Have not used academic reassessment due to leave of absence before at The University of Akron; and
- Submit a written request for academic reassessment to the student's college dean's office. To apply for academic reassessment, the student shall complete the appropriate form in consultation with his/her academic advisor. The Office of the University Registrar shall confirm eligibility and make the adjustments to the student's academic record.
- The student begins with a new cumulative grade point average and adjusted credit hour totals. Credit hours are defined as semester hours. Only grades with a "C-" or lower may be reassessed. The student, in consultation with his/her academic advisor, shall identify the courses to be reassessed. For reassessment due to leave of absence, grades to be reassessed shall come from the time period prior to the student's re-enrollment following the two-year absence.
- Grades earned for the courses that are reassessed at The University of Akron are excluded from the calculation of the cumulative "GPA," but will remain on the student's official transcript
- Credit hours earned for courses at The University of Akron during the previous enrollment with a grade of "C" or better, including "CR," are retained
- For reassessment due to leave of absence, credit hours from all reassessed courses taken during the previous enrollment at The University of Akron with a grade of "C-" or lower are removed from the calculation of the cumulative "GPA" (although the grades are retained on the academic transcript with the notation "academic reassessment policy")

## Due to Change of Major

To be eligible for academic reassessment due to change of major, a student shall:

- Have changed major during the first sixty credit hours attempted at The University of Akron; and
- Have maintained a grade point average of 2.5 or higher for the first 24 letter-graded ("A" through "F") hours attempted subsequent to the student's change of major; and
- Have not used academic reassessment due to change of major before at The University of Akron; and
- Submit a written request for academic reassessment to the student's college dean's office. To apply for academic reassessment, the student shall complete the appropriate form in consultation with

his/her academic advisor. The Office of the University Registrar shall confirm eligibility and make the adjustments to the student's academic record.

- The student begins with a new cumulative grade point average and adjusted credit hour totals. Credit hours are defined as semester hours. Only grades with a "C-" or lower may be reassessed. The student, in consultation with his/her academic advisor, shall identify the courses to be reassessed. For reassessment due to change of major, grades to be reassessed shall come from the time period prior to the student's change of major.
- Grades earned for the courses that are reassessed at The University of Akron are excluded from the calculation of the cumulative "GPA," but will remain on the student's official transcript
- Credit hours earned for courses at The University of Akron during the previous enrollment with a grade of "C" or better, including "CR," are retained
- For reassessment due to change of major, up to three courses may be reassessed. Credit hours from all reassessed courses taken prior to the change of major at The University of Akron with a grade of "C-" or lower are removed from the calculation of the cumulative "GPA" (although the grades are retained on the academic transcript with the notation "academic reassessment policy")

### The Office of the University Registrar will apply the following provisions of the academic reassessment policy:

- When counting the first 24 credits attempted, if the 24th credit is part of other credits earned during a semester, the entire number of credits earned for that semester will be calculated into the grade-point average
- An undergraduate student may utilize each academic reassessment policy only one time in his/her career at The University of Akron
- This policy applies to undergraduate course work taken at The University of Akron and only for undergraduate students earning a first undergraduate degree
- Any academic probations, suspensions or dismissals from reassessed semesters shall not be forgiven. They will count when the probation-dismissal policy is applied to the student's record after readmission
- A student may seek an exception to this policy through an appeal to the senior vice president and provost and chief operating officer whose decision will be final

## Academic Misconduct

It is each student's responsibility to know what constitutes academic misconduct. The University of Akron's Code of Student Conduct (<http://www.uakron.edu/ogc/UniversityRules/pdf/41-01.pdf>) defines academic misconduct as any activity that compromises the academic integrity of the student and university, and undermines the educational process. Academic misconduct includes but is not limited to:

Cheating, including but not limited to:

- Use of unauthorized assistance in taking quizzes, tests, or examinations.
- Submitting substantially the same work to satisfy requirements for one course or academic requirement that has been submitted in satisfaction of requirements for another course or academic requirement, without permission of the faculty member of the course

for which the work is being submitted or supervising authority for the academic requirement.

- Use of sources prohibited by the faculty member in writing papers, preparing reports, solving problems, or carrying out other assignments.
- Inappropriate acquisition and/or improper distribution of tests or other academic materials without the permission of the faculty member.
- Engaging in any behavior specifically prohibited by a faculty member in the course syllabus or during class discussion.

Plagiarism, including but not limited to:

- Intentional or unintentional representation of ideas or works of another author or creator in whole or in part as the student's own without properly citing the original source for those ideas or works.
- The use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

An incident of academic misconduct may be resolved and a sanction assessed in a meeting between the faculty member and student. The faculty member should confer with the Department of Student Conduct and Community Standards (<https://www.uakron.edu/studentconduct/>) to determine whether any prior academic misconduct has occurred. If there is no history of prior academic misconduct and the student and faculty member agree on the facts of the incident and the proposed sanction, the matter can be resolved informally through the use of the Academic Misconduct Notification Form located on the Department of Student Conduct and Community Standards webpage (<https://www.uakron.edu/sja/>). If agreement has been reached and the Academic Misconduct Notification Form has been signed by both the student and faculty member a copy should be retained by the faculty member and student, and the original should be sent to the Department of Student Conduct and Community Standards (<https://www.uakron.edu/sja/>).

If the student and faculty member disagree about the facts of the incident or the proposed sanction, or the student chooses not to sign the form, or the faculty member chooses not to resolve the matter informally, then the matter should be referred to the Department of Student Conduct and Community Standards for adjudication as provided in the Code of Student Conduct (<http://www.uakron.edu/ogc/UniversityRules/pdf/41-01.pdf>).

For additional information or resources concerning academic misconduct or the Code of Student Conduct, please contact the Department of Student Conduct and Community Standards (<https://www.uakron.edu/sja/>).

Department of Student Conduct and Community Standards  
Simmons Hall, Room 302  
(330)972-6380  
[studentconduct@uakron.edu](mailto:studentconduct@uakron.edu)  
[www.uakron.edu/studentconduct](http://www.uakron.edu/studentconduct) (<http://www.uakron.edu/studentconduct/>)

## Transient Work at Another University

The purpose of transient work is to provide The University of Akron student with opportunity to:

1. take a course that is not offered at The University of Akron; or,
2. if the student is away in the summer, to take a course in a distant location; or,

3. in rare cases, a student who is only a few credits shy of graduation and must leave The University of Akron due to extenuating circumstances.

These courses will be listed on The University of Akron official academic record. Each course will reflect the course number, title, grade and credit value; no grade-point value will appear on the record and the grade for such course will not be included in The University of Akron grade-point calculation. The name of the institution will be listed on The University of Akron official academic record as well as the date that the coursework was taken.

Any University of Akron student who wishes to take coursework at another regionally accredited institution of higher education must receive prior approval by the academic dean of the appropriate unit if the student intends to apply this coursework toward a degree at The University of Akron.

- A student can make an official request for transient credit by submitting a Transient Permission Form. If the coursework taken at another institution will be used to satisfy The University of Akron General Education requirements, prior written permission to take the course must be received from the office responsible for transfer student services unless the course has been previously approved as an equivalency by The University of Akron.
- If the coursework taken at another institution will be used to satisfy a degree granting college degree requirement or as elective credit, prior written permission to take the course must be received from the dean of the student's degree granting college unless the course has been previously approved as an equivalency by The University of Akron.
- A student must earn a grade of "D-" or better in the course at the other institution in order for the credits to apply toward the student's degree requirements at The University of Akron unless otherwise specified by the degree-granting college. The student must provide the official transcript for the course in order to receive credit.
- No more than 18 total credit hours of transient work may be approved prior to the granting of a baccalaureate degree. No more than nine total credit hours of transient work may be approved prior to the granting of an associate degree.
- Approvals for transient attendance at other institutions are valid for only the requested term and are subject to all restrictions of the dean of the college approving the request for transient credit.
- Students who are on probation, dismissed or are in the last 30 hours of a baccalaureate degree or are in the last 15 hours of an associate degree are restricted or denied transient permission by either the dean of the degree granting college or the dean of the University College except in rare and compelling circumstances.

**Note:** Coursework taken at another institution cannot be considered for The University of Akron's *Repeat for Change of Grade* policy or *Academic Reassessment* policy and will not be calculated into the UA grade point average.

## Graduation Requirements Requirements for Baccalaureate and Associate Degrees

A candidate for the baccalaureate or the associate degree must:

- File an application for graduation online with the Office of the University Registrar; if the candidate plans to complete degree

requirements at the end of the fall semester, submit an application by or before July 1; If the plan is to complete degree requirements at the end of the spring semester, submit an application by or before December 1; Submit an application by or before April 1 for Summer Commencement

- Earn a minimum of 120 credits for a baccalaureate degree, 60 credits for an associate degree (some programs of study may require more credits) with a minimum 2.00 grade point average as computed by the Office of the University Registrar for work attempted at the University consistent with the Repeating Courses policy; Some of the colleges may have by action of their faculties, adopted a higher grade-point average for graduation with a degree from that college; The grade point average achieved at the time of completion of requirements for a degree will include repeated and reassessed courses which will be used to calculate graduation honors
- Meet all degree requirements including grade-point averages that are in force at the time a transfer is made to a degree-granting college; If the student should transfer to another major, then the requirements should be those in effect at the time of the transfer; For a student enrolled in an associate degree program, the requirements shall be those in effect upon entrance into the program
- For purposes of meeting foreign language requirements, all foreign language and "American Sign Language" courses can fulfill the foreign language requirement for those programs that have a non-specific foreign language requirement; For those majors or programs that specify specific language requirements, the applicable specific language requirement must be met to satisfy graduation requirements for that major or program
- Be approved for graduation by appropriate college faculty, Faculty Senate and Board of Trustees
- Complete the requirements for a degree in not more than five calendar years from the date of transfer, as defined below; In the event the student fails to complete the degree requirements within five calendar years from the date of transfer, the University reserves the right to make changes in the number of credits and/or courses required for a degree
- The date of transfer for a student in a baccalaureate program will be the date that the student is accepted by the degree-granting college; For a student enrolled in an associate degree program, the date of transfer refers to the date of entrance into the program
- Earn the last 30 credits in the baccalaureate degree total or 15 credits in the associate degree total in residence at The University of Akron unless excused in writing by the dean of the college in which the student is enrolled
- Earn a minimum of 30 credits in the baccalaureate degree total or 15 credits in the associate degree total in residence at The University of Akron
- If a student who has transferred from another institution wishes to present for the student's major fewer than 14 credits earned at The University of Akron, written permission of both the dean and the head of the department concerned is required
- Discharge all other obligations at the University

- Earn a minimum of 30 credits which have not counted toward a baccalaureate degree, for an additional baccalaureate degree, or 15 credits which have not counted toward an associate degree, for an additional associate degree; These credits shall be earned in residence at The University of Akron

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## Requirements for Minor Areas of Study

The University of Akron has approved minor fields of study that may be placed on a student's record when all requirements have been completed.

The following rules apply to all minors:

- The student must complete at least 18 credits. (Note: some minors may require additional credits).
- At least six of the 18 credits must be at the 300/400 level, except where the department does not offer 300/400 level courses.
- A minimum grade-point average of 2.0 in each minor is required.
- A minor may be designated at any time during the student's career up to and including the time the degree clearance is processed.
- A minor will be placed on the student's record only at the time the student receives a baccalaureate degree and only if an application was processed.
- Courses to be applied toward the granting of a minor may not be taken credit/non-credit. A maximum of 6 bypassed credits may be used, but all other credits must be earned.
- The student must earn at least nine credits at The University of Akron in courses approved by the faculty granting the minor. Written permission of the dean and the head of the department which grants the minor is required for an exception.
- Courses required for a minor may carry prerequisites, which must be honored before the student may enroll.

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## Requirements for Certificate Programs

- At least two-thirds of the credits that apply towards the certificate program must be completed at The University of Akron. Exceptions may be granted by permission of the director of the certificate program.

## Change of Requirements

To better accomplish its objectives and serve our students, the University reserves the right to alter, amend or revoke any rule or regulation.

The policy of the University is to give advance notice of such change, whenever feasible.

Unless the change in a rule or regulation specifies otherwise, it shall become effective immediately with respect to the student who subsequently enters the University, whatever the date of matriculation.

Without limiting the generality of its power to alter, amend or revoke rules and regulations, the University reserves the right to make changes in degree requirements of the student enrolled prior to the change by:

- Altering the number of credits and/or courses required in a major field of study
- Deleting courses

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## Requirements for Additional Baccalaureate and Associate Degrees

- Meet all of the requirements given above - Requirements for Baccalaureate and Associate Degrees

- Amending courses by increasing or decreasing the credits of specific courses, or by varying the content of specific courses
- Offering substitute courses in the same or cognate fields

The Dean of the college, in consultation with the Department or Division Head of the student's major field of study, may grant waivers in writing if a change in rules affects degree requirements of a student enrolled before the change was effective. The action of the Dean of the college in granting or refusing a waiver shall be reviewed by the Senior Vice President and Provost and Chief Operating Officer on his motion, at the request of the Dean of the college of the student affected, or at the request of the student.

Credit and grade-point requirements for graduation as adopted by the college faculties are listed in this bulletin.

When deemed necessary and only in rare and unique circumstances that do not undermine the overall integrity of the various graduation requirements, the Senior Vice President and Provost and Chief Operating Officer, in consultation with the President, may waive specific requirements contained in this rule and report such waivers to the Board of Trustees for its information.

## Graduation with Honors

Honors announced at the commencement ceremony are based on the grade point average as of one week prior to commencement. The number of credit hours for the commencement ceremony includes the total number of credit hours completed at The University of Akron plus the number of credit hours in progress at The University of Akron. Official honors are determined after all final grades have been reported on the academic record. The official honors designation will be posted to the diploma and academic transcript.

- The grade point average will be rounded to the nearest hundredth for the purposes of determining graduation with honors.
- Where deemed necessary, the Senior Vice President and Provost and Chief Operating Officer may waive these requirements for rare and unique circumstances and report such waivers to the Board of Trustees for its information.

## Baccalaureate Degree

For a student who is being awarded a baccalaureate degree and who has completed 60 or more credits at The University of Akron, the degree:

Will be Designated	If the Overall Grade Point Average Is
Cum Laude	between 3.4 and 3.59
Magna Cum Laude	between 3.60 and 3.79
Summa Cum Laude	3.80 or higher

- A student who holds a baccalaureate degree from an accredited institution, including The University of Akron, and who earns a subsequent baccalaureate degree at The University of Akron per the academic policy requirements for second degrees, is eligible to graduate with honors.

## Associate and Baccalaureate Degrees

For a student who is being awarded an associate degree and who has completed 30 or more credits at The University of Akron and for a student who is being awarded a baccalaureate degree who has completed between 30 - 59.9 credits at The University of Akron, the degree:

Will be Designated	If the Overall Grade Point Average Is
with distinction	between 3.4 and 3.59
with high distinction	between 3.60 and 3.79
with highest distinction	3.80 or higher

- A student who holds an associate degree from an accredited institution, including The University of Akron, and who earns a subsequent associate degree at The University of Akron per the academic policy requirements for second degrees, is eligible to graduate with honors.

## General Education

### General Education Program

General Education provides a common intellectual experience for all university students. The program develops strong communication and critical thinking skills, a broad understanding of disciplinary areas, and the knowledge and skills necessary for responsible citizenship in an interconnected world. General Education is the foundation of all undergraduate degree programs at The University of Akron.

### Program Learning Outcomes

#### Academic Foundations

Students will gain a foundation of intellectual skills including oral and written communication, information literacy and logical or quantitative reasoning. Student will practice these skills in increasingly challenging contexts throughout the general education program and the major.

#### Breadth of Knowledge

Students will gain broad knowledge and practice disciplinary methods of inquiry in the Arts, Humanities, Natural Sciences, and Social Sciences.

#### Diversity

Students will gain skills and knowledge required for responsible citizenship through the analysis of diversity within domestic and global contexts.

#### Integrated and Applied Learning

Students will apply and integrate knowledge gained throughout the undergraduate curriculum. This will be demonstrated through completion of either a capstone in the major or an upper-level course applying interdisciplinary perspectives to a complex social issue.

### Integration with Major

The UA General Education program is designed to support and enhance the major course of study. Majors may require particular General Education coursework, and some major courses may fulfill General Education requirements. Students should consult their program curriculum guides and Degree Progress Reports, as well as meet with an advisor, for the recommended General Education courses to take.

### Transfer and Alternative Credit Options

Student may fulfill General Education requirements through appropriate transfer coursework from accredited institutions of higher education, external credit-conferring testing programs such as the College Board Advanced Placement and College Level Examination Program (CLEP), and other programs. For more information, see the transfer policies (p. 12).

Students who plan to transfer to or from another Ohio public college or university should select coursework from the Ohio Transfer 36 ([https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/31836615/5b5a7127-5d3d-40ea-8914-85cae16740e9/?%3Adisplay\\_count=n&%3AshowVizHome=n&%3Aorigin=viz\\_share\\_link&%3AisGuestRedirectFromVizportal=y&%3Aembed=y](https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/31836615/5b5a7127-5d3d-40ea-8914-85cae16740e9/?%3Adisplay_count=n&%3AshowVizHome=n&%3Aorigin=viz_share_link&%3AisGuestRedirectFromVizportal=y&%3Aembed=y)). This set of coursework will satisfy specified General Education requirements at any public institution.

## Requirements for Bachelor's Degrees

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

### Academic Foundations - 12 credits

#### Mathematics, Statistics, and Logic - 3 credit hours

*Students who successfully complete a mathematics or statistics course with a prerequisite on the list below satisfy the Mathematics, Statistics, and Logic requirement.*

Course	Ohio Transfer 36
MATH:135 Mathematics for Everyday Life	YES
MATH:145 Algebra for Calculus	YES
MATH:149 Precalculus Mathematics	YES
MATH:152 Technical Mathematics II	YES
MATH:153 Technical Mathematics III	YES
MATH:154 Technical Mathematics IV	
MATH:161 Mathematics for Modern Technology	YES
MATH:208 Introduction to Discrete Mathematics	
MATH:210 Calculus with Business Applications	YES
MATH:215 Concepts of Calculus	YES
MATH:221 Analytic Geometry-Calculus I	YES
MATH:222 Analytic Geometry-Calculus II	YES
MATH:223 Analytic Geometry-Calculus III	YES
MATH:240 Mathematical Foundations for Early Childhood Educators	
MATH:255 Technical Calculus I	
MATH:261 Applied Finite Mathematics	
MATH:312 Linear Algebra	YES
MATH:356 Technical Calculus II	
PHIL:170 Introduction to Logic	YES
STAT:250 Statistics for Everyday Life	YES

STAT:260 Basic Statistics	YES
STAT:261 Introductory Statistics I	YES
STAT:262 Introductory Statistics II	YES

#### Speaking - 3 credit hours

Course	Ohio Transfer 36
COMM:105 Introduction to Public Speaking	YES
COMM:106 Effective Oral Communication	YES
COMM:263 Professional Communications and Presentations	YES

#### Writing - 6 credit hours

##### First Course

Course	Ohio Transfer 36
ENGL:110 English Composition I + Workshop	YES
ENGL:111 English Composition I	YES

Second Course - *Students who are placed in the second writing course and successfully complete it satisfy the Writing requirement.*

Course	Ohio Transfer 36
ENGL:112 English Composition II	YES
ENGL:222 Technical Report Writing	YES

### Breadth of Knowledge - 22 credits

#### Fine Arts and Humanities - 9 credit hours

*Students must take at least one Arts course and at least one Humanities course. The second Arts or Humanities course may be in the same department or in a different one.*

*Fine Arts - at least one course*

Course	Fulfills Requirements For	Ohio Transfer 36
ART:101 Survey of Global Art 1: Prehistory to 1250 CE	- Arts, - Global Diversity	
ART:102 History of Global Art 2: 1250 CE - 1850 CE	- Arts	
ART:210 Visual Arts Awareness	- Arts	YES
DNCE:265 Viewing Dance	- Arts	YES
ENGL:283 Film Appreciation	- Arts	
MUSIC:154 Music Literature I	- Arts	
MUSIC:201 Exploring Music: Bach to Rock	- Arts	YES
THEA:100 Experiencing Theatre	- Arts	
THEA:264 Playscript & Performance Analysis	- Arts	

*Humanities - at least one course*



Course	Fulfills Requirements For	Ohio Transfer 36			
ARAB:210 Arabic Culture through Film	- Humanities		BIOL:200 Human Anatomy & Physiology I	- Natural Science	YES
CHIN:210 Chinese Culture Through Film	- Humanities		BIOL:202 Human Anatomy & Physiology II	- Natural Science	YES
CLAS:230 Sports & Society in Ancient Greece and Rome	- Humanities	YES	CHEM:110 Introduction to General, Organic & Biochemistry I (Lecture)	- Natural Science	YES
CLAS:289 Mythology of Ancient Greece	- Humanities	YES	CHEM:112 Introduction to General, Organic & Biochemistry II (Lecture)	- Natural Science	YES
ENGL:252 Shakespeare & His World	- Humanities	YES	CHEM:151 Principles of Chemistry I	- Natural Science	YES
ENGL:281 Fiction Appreciation	- Humanities		CHEM:153 Principles of Chemistry II	- Natural Science	YES
FREN:210 French and Francophone Cultures Through Film	- Humanities, - Global Diversity		GEOL:100 Earth Science	- Natural Science	YES
HIST:200 Empires of the Ancient World	- Humanities, - Global Diversity	YES	GEOL:121 Dinosaurs	- Natural Science	
HIST:210 Humanities in the Western Tradition from Ancient Times to 1500	- Humanities	YES	GEOL:122 Mass Extinctions & Geology	- Natural Science	
HIST:221 Humanities in the World since 1300	- Humanities, - Global Diversity	YES	GEOL:130 Geologic Record of Climate Change	- Natural Science	
JAPN:210 Japanese Culture through Film	- Humanities, - Global Diversity		GEOL:133 Caves	- Natural Science	
PHIL:101 Introduction to Philosophy	- Humanities	YES	GEOL:135 Geology of Energy Resources	- Natural Science	
PHIL:120 Introduction to Ethics	- Humanities	YES	GEOL:137 Earth's Atmosphere & Weather	- Natural Science	
PHIL:125 Theory & Evidence	- Humanities	YES	GEOL:171 Introduction to the Oceans	- Natural Science	YES
PHIL:150 Critical Thinking	- Humanities	YES	GEOL:200 Environmental Geology	- Natural Science	YES
PHIL:211 History of Ancient Philosophy	- Humanities	YES	GEOL:211 Introduction to Environmental Science	- Natural Science	YES
SPAN:210 Spanish Culture Through Film	- Humanities, - Global Diversity		NUTR:133 Nutrition Fundamentals	- Natural Science	
SPAN:250 Hispanic Literature in Translation	- Humanities	YES	PHYS:163 Technical Physics: Electricity & Magnetism	- Natural Science	YES

### Natural Science - 7 credit hours, including one lab

A majors-track course in the natural sciences can substitute for a general education natural science course.

Students may fulfill the Natural Sciences requirement with any coursework that adds up to seven credit hours and includes a lab, using courses from the same department or different ones.

Course	Fulfills Requirements For	Ohio Transfer 36
BIOL:106 Exploring Biology	- Natural Science	
BIOL:108 Introduction to Biological Aging	- Natural Science	

Course	Fulfills Requirements For	Ohio Transfer 36
ANAT:206 Applied Human Anatomy & Physiology I	- Natural Science w/ LAB	YES
ANAT:207 Applied Human Anatomy & Physiology II	- Natural Science w/ LAB	YES
ANAT:210 Applied Human Anatomy & Physiology Lab I	- Natural Science w/ LAB	
ANAT:211 Applied Human Anatomy & Physiology Lab II	- Natural Science w/ LAB	

ANTH:105 Human Evolution	- Natural Science w/ LAB	YES
BIOL:103 Natural Science: Biology	- Natural Science w/ LAB	YES
BIOL:111 Principles of Biology I	- Natural Science w/ LAB	YES
BIOL:112 Principles of Biology II	- Natural Science w/ LAB	YES
BIOL:130 Principles of Microbiology	- Natural Science w/ LAB	YES
BIOL:265 Introductory Human Physiology	- Natural Science w/ LAB	
CHEM:101 Chemistry for Everyone	- Natural Science w/ LAB	YES
CHEM:111 Introduction to General, Organic & Biochemistry I (Laboratory)	- Natural Science w/ LAB	YES
CHEM:113 Introduction to General, Organic & Biochemistry II (Laboratory)	- Natural Science w/ LAB	YES
CHEM:152 Principles of Chemistry I Laboratory	- Natural Science w/ LAB	YES
GEOL:101 Introductory Physical Geology	- Natural Science w/ LAB	YES
GEOL:102 Introductory Historical Geology	- Natural Science w/ LAB	
GEOL:201 Exercises in Environmental Geology I	- Natural Science w/ LAB	YES
GEOL:203 Exercises in Environmental Geology II	- Natural Science w/ LAB	YES
GEOL:230 Mineral Science	- Natural Science w/ LAB	
PHYS:130 Descriptive Astronomy	- Natural Science w/ LAB	YES
PHYS:133 Music, Sound & Physics	- Natural Science w/ LAB	YES
PHYS:137 Light	- Natural Science w/ LAB	YES
PHYS:160 Technical Physics: Mechanics	- Natural Science w/ LAB	YES
PHYS:161 Technical Physics: Mechanics I	- Natural Science w/ LAB	
PHYS:162 Technical Physics: Mechanics II	- Natural Science w/ LAB	
PHYS:261 Physics for Life Sciences I	- Natural Science w/ LAB	
PHYS:262 Physics for Life Sciences II	- Natural Science w/ LAB	
PHYS:291 Elementary Classical Physics I	- Natural Science w/ LAB	
PHYS:292 Elementary Classical Physics II	- Natural Science w/ LAB	

**Social Science - 6 credit hours**

*Students may fulfill the Social Science area requirement using courses from the same department or different ones.*

Course	Fulfills Requirements For	Ohio Transfer 36
ANTH:101 Human Cultures	- Social Science, - Global Diversity	YES
ANTH:110 Introduction to Archaeology	- Social Science	YES
ANTH:251 Human Diversity	- Social Science, - Global Diversity	
ECON:100 Introduction to Economics	- Social Science	YES
ECON:200 Principles of Microeconomics	- Social Science	YES
ECON:244 Introduction to Economic Analysis	- Social Science	YES
GEOG:100 Introduction to Geography	- Social Science	YES
HIST:250 U.S. History to 1877	- Social Science, - Domestic Diversity	YES
HIST:251 U.S. History since 1877	- Social Science, - Domestic Diversity	YES
HIST:295 Global Societies: Japan	- Social Science, - Global Diversity	
HIST:296 Global Societies: Latin America	- Social Science, - Global Diversity	
HIST:297 Global Societies: Middle East	- Social Science, - Global Diversity	
PAFS:252 The Black Experience 1619-1918	- Social Science, - Domestic Diversity	
PAFS:253 The Black Experience 1918-Present	- Social Science, - Domestic Diversity	
PAFS:256 Diversity in American Society	- Social Science, - Domestic Diversity	YES
POLIT:100 Government & Politics in the United States	- Social Science	YES
POLIT:150 World Politics & Government	- Social Science	YES
PSYC:100 Introduction to Psychology	- Social Science	YES
SOCIO:100 Introduction to Sociology	- Social Science, - Domestic Diversity	YES
SOCIO:243 Contemporary Global Issues	- Social Science, - Global Diversity	YES
SOWK:230 Human Relations	- Social Science	YES
SOWK:244 Death & Dying	- Social Science, - Domestic Diversity	YES
SOWK:344 Death & Dying	- Social Science, - Domestic Diversity	

**Diversity - 2 courses****Domestic Diversity - one course**

Course	Fulfills Requirements For	Ohio Transfer 36
ANTH:358 Indians of North America	- Domestic Diversity	
COMM:325 Intercultural Communication	- Domestic Diversity	
ECON:487 Urban Economics:Theory & Policy	- Domestic Diversity	
ENGL:350 Black American Literature	- Domestic Diversity	
GEOG:350 Geography of the United States & Canada	- Domestic Diversity	
GEOG:443 Urban Applications in GIS	- Domestic Diversity	
HIST:250 U.S. History to 1877	- Social Science, - Domestic Diversity	YES
HIST:251 U.S. History since 1877	- Social Science, - Domestic Diversity	YES
HIST:350 U.S. Women's History	- Domestic Diversity	
MUSIC:155 Music Literature II	- Domestic Diversity	
PAFS:201 Introduction to Pan-African Studies	- Domestic Diversity	
PAFS:252 The Black Experience 1619-1918	- Social Science, - Domestic Diversity	
PAFS:253 The Black Experience 1918-Present	- Social Science, - Domestic Diversity	
PAFS:256 Diversity in American Society	- Social Science, - Domestic Diversity	YES
PHIL:455 Philosophy of Feminism	- Domestic Diversity	
PHIL:456 Philosophy of Race & Ethnicity	- Domestic Diversity	
PSYC:250 Psychology of Diversity	- Domestic Diversity	
PSYC:435 Cross-Cultural Psychology	- Domestic Diversity	
PSYC:474 Psychology of Women	- Domestic Diversity	
SOCIO:100 Introduction to Sociology	- Social Science, - Domestic Diversity	YES
SOWK:244 Death & Dying	- Social Science, - Domestic Diversity	YES
SOWK:270 Diversity and Social Work	- Domestic Diversity	
SOWK:344 Death & Dying	- Social Science, - Domestic Diversity	
THEA:467 Multi-Cultural Theatre	- Domestic Diversity	

WMST:200 Introduction to Women's Studies - Domestic Diversity

**Global Diversity - one course**

Course	Fulfills Requirements For	Ohio Transfer 36
ANTH:101 Human Cultures	- Social Science, - Global Diversity	YES
ANTH:251 Human Diversity	- Social Science, - Global Diversity	
ANTH:416 Anthropology of Sex and Gender	- Global Diversity	
ART:101 Survey of Global Art 1: Prehistory to 1250 CE	- Arts, - Global Diversity	
ECON:460 Economics of Developing Countries	- Global Diversity	
ENGL:362 World Literatures	- Global Diversity	
ENGL:367 The Rhetoric of God	- Global Diversity	
FREN:210 French and Francophone Cultures Through Film	- Humanities, - Global Diversity	
GEOG:275 Geography of Cultural Diversity	- Global Diversity	
HIST:200 Empires of the Ancient World	- Humanities, - Global Diversity	YES
HIST:221 Humanities in the World since 1300	- Humanities, - Global Diversity	YES
HIST:292 Global Societies: Africa	- Global Diversity	
HIST:294 Global Societies: India	- Global Diversity	
HIST:295 Global Societies: Japan	- Social Science, - Global Diversity	
HIST:296 Global Societies: Latin America	- Social Science, - Global Diversity	
HIST:297 Global Societies: Middle East	- Social Science, - Global Diversity	
HIST:324 Europe from World War I to the Present	- Global Diversity	
HIST:337 France from Napoleon to Degaulle	- Global Diversity	
HIST:377 History of Women in Latin America	- Global Diversity	
HIST:378 Spanish Conquest and Colonization of the Americas	- Global Diversity	
HIST:395 Modern Iran	- Global Diversity	
HIST:489 Ottoman State and Society	- Global Diversity	

HIST:499 Women and Gender in Middle Eastern Societies	- Global Diversity	
JAPN:210 Japanese Culture through Film	- Humanities, - Global Diversity	
PHIL:200 Philosophy of World Religions	- Global Diversity	
PHIL:340 Eastern Philosophy	- Global Diversity	
POLIT:300 Comparative Politics	- Global Diversity	
SOCIO:243 Contemporary Global Issues	- Social Science, - Global Diversity	YES
SOCIO:321 Population, Environment, and Health	- Global Diversity	
SPAN:210 Spanish Culture Through Film	- Humanities, - Global Diversity	
SPAN:360 Hispanic Culture through Film	- Global Diversity	
THEA:335 History of Theatre and Dramatic Literature: Origins through 18th Century	- Global Diversity	
THEA:435 History of Theatre and Dramatic Literature: 1800 to Present	- Global Diversity	

## Integrated and Applied Learning - 1 course

Select one course from either of the following categories

### Capstone

Course	Fulfills Requirements For
AESE:491 Aerospace Design Project I	- Capstone
ART:412 Student Teaching Colloquium	- Capstone
BMEN:491 Biomedical Engineering Design I	- Capstone
CHEE:442 Process Design II	- Capstone
CIVE:490 Senior Design in Civil Engineering	- Capstone
COET:468 Construction Management	- Capstone
CORE:441 Corrosion Engineering Design II	- Capstone
CPEN:401 Senior Design Project I - Computer Engineering	- Capstone
CPSC:490 Senior Seminar in Computer Science	- Capstone
EEET:455 Senior Project	- Capstone
ELEN:401 Senior Design Project I - Electrical Engineering	- Capstone
EMHS:485 Cyber Forensics Capstone	- Capstone

MECE:461 ME Senior Design Project I	- Capstone
MUSIC:492 Student Teaching Colloquium	- Capstone
PHYS:491 Capstone Project in Physics A	- Capstone
PLYE:499 Senior Design Project II	- Capstone
SURV:430 Surveying Project	- Capstone

### Complex Issues Facing Society

Course	Fulfills Requirements For
AESE:490 Aerospace Design Project	- Complex Issues Facing Society
AESE:497 Aerospace Honors Project	- Complex Issues Facing Society
ANTH:320 The Anthropology of Food	- Complex Issues Facing Society
ANTH:370 Globalization and Culture	- Complex Issues Facing Society
ANTH:457 Medical Anthropology	- Complex Issues Facing Society
ANTH:460 Field Methods in Cultural Anthropology	- Complex Issues Facing Society
CHFD:401 American Families in Poverty	- Complex Issues Facing Society
CPEN:402 Senior Design Project II - Computer Engineering	- Complex Issues Facing Society
ECON:385 Economics of Natural Resources & the Environment	- Complex Issues Facing Society
ECON:430 Labor Market and Social Policy	- Complex Issues Facing Society
EDCI:223 Urban Youth Mentoring	- Complex Issues Facing Society
ELEN:402 Senior Design Project II - Electrical Engineering	- Complex Issues Facing Society
GEOL:421 Coastal Geology	- Complex Issues Facing Society
GEOL:443 Rivers	- Complex Issues Facing Society
GEOL:452 Geology and Environmental Science Service Learning	- Complex Issues Facing Society
HIST:463 United States Constitutional History	- Complex Issues Facing Society
HIST:472 Empire, Genocide, and Mass Violence	- Complex Issues Facing Society
NURS:440 Nursing of Communities	- Complex Issues Facing Society
NURS:445 Nursing of Communities - RN Only	- Complex Issues Facing Society
PHIL:207 Food Ethics	- Complex Issues Facing Society
PHIL:241 Technology & Human Values	- Complex Issues Facing Society
PHIL:361 Biomedical Ethics	- Complex Issues Facing Society
PHIL:365 Environmental Ethics	- Complex Issues Facing Society
PHIL:366 Engineering Ethics	- Complex Issues Facing Society
PLYS:350 Sustainable Polymers	- Complex Issues Facing Society
PSPE:310 Impacts of Polymers on Modern Life	- Complex Issues Facing Society
PSYC:425 Psychology of Hate	- Complex Issues Facing Society
SOCIO:320 Social Inequalities	- Complex Issues Facing Society
SOCIO:342 Sociology of Health & Illness	- Complex Issues Facing Society

SOCIO:433 Sociology of Deviant Behavior	- Complex Issues Facing Society
SPAN:308 Spanish Composition: Health Professions & First Responders	- Complex Issues Facing Society

Printable General Education Curriculum Guide (<https://www.uakron.edu/general-education/docs/GEN%20ED%20-%20General%20Education%202.0%20Guide%20AY%2022-23.pdf>)

## Requirements for Associate Degrees

Students in the **Associate of Arts and Associate of Sciences** degree programs must complete the following 36 credit-hour set of General Education coursework. Specific courses can be found from the dropdown menus above.

Code	Title	Hours
<b>Academic Foundations</b>		
	Mathematics, Statistics, and Logic	3
	Speaking	3
	Writing	6
<b>Breadth of Knowledge</b>		
	Arts and Humanities (one course from each)	9
	Natural Science (including one lab)	7
	Social Science	6
<b>Additional General Education credits to equal 36 credit hours</b>		<b>2</b>
Students should meet this requirement by taking a Global Diversity or Domestic Diversity course if they have not already taken a Breadth of Knowledge course that satisfies the Diversity requirement		
Total Hours		36

Students in **applied associate degree programs** must complete the following 15 credit-hour set of General Education coursework:

Code	Title	Hours
<b>Academic Foundations</b>		
	Mathematics, Statistics, and Logic	3
	Speaking	3
	Writing	3
<b>Breadth of Knowledge</b>		
	Natural Science	3
	Social Science	3
Total Hours		15

## Colleges and Programs

The University of Akron offers comprehensive programs of instruction leading to the associate (two-year), bachelor's (four-year), master's (graduate), and doctoral (graduate or professional) degrees.

### Buchtel College of Arts and Sciences

- Departments and Programs (p. 40)
- About the College (p. 38)
- College Website (<https://www.uakron.edu/bcas/>)

Buchtel College of Arts and Sciences is the largest and oldest degree-granting college at The University of Akron. In addition to providing a

world-class education in an array of associate's, bachelor's, master's and doctoral degree programs, Buchtel College provides the majority of general education courses for the University. E.J. Thomas Performing Arts Hall (<https://www.uakron.edu/ej/>), the region's flagship performance venue, is home to many arts performances for the college.

Qualified students seeking hands-on career exploration experiences can enroll in internships and co-op opportunities. All students are encouraged to pursue experiential learning through curricular and co-curricular experiences on campus, in research settings, and in the community.

Students wishing to enrich their majors by completing a certificate, a minor or a double major are encouraged to do so. Interdisciplinary studies are readily available to Arts and Sciences students through the Biomedical Science major, the Humanities Division major, the Social Sciences Division majors and the Bachelor of Arts in Multidisciplinary Studies program.

The College has five administrative divisions:

- The Arts Division includes:
  - Mary Schiller Myers School of Art
  - School of Dance, Theatre, and Arts Administration
  - School of Music
- The Education Division includes:
  - LeBron James Family Foundation School of Education
- The Humanities Division includes:
  - English
  - Modern Languages
  - Philosophy
- (<https://www.uakron.edu/philosophy/>)The Natural Sciences Division includes:
  - Biology
  - Chemistry
  - Geosciences
  - Physics
  - Mathematics
  - Statistics
- The Social Sciences Division includes:
  - Anthropology
  - School of Communication
  - Criminal Justice Studies
  - History
  - Political Science
  - Psychology
  - Public Administration and Urban Studies (graduate only)
  - Sociology

### College of Business

- Departments and Programs (p. 379)
- About the College (p. 378)
- College Website (<https://www.uakron.edu/cba/>)

The College of Business is a professional college of the University that is dedicated to teaching, business research and public service. The College is accredited by AACSB International - The Association to Advance the Collegiate Schools of Business and offers accredited baccalaureate and master's degree programs during the day and evening.

The College of Business is home to:

- George W. Daverio School of Accountancy
- Economics
- Finance
- Management
- Marketing

## College of Engineering and Polymer Science

- Departments (p. 450)
- Programs (p. 451)
- About the College (p. 449)
- College Website (<https://www.uakron.edu/ceps/>)

The College of Engineering and Polymer Science (CEPS) provides educational opportunities at both the undergraduate and graduate levels for students who wish to pursue careers in engineering, engineering technology, computing, and polymer science.

## College of Health and Human Sciences

- Departments and Programs (p. 580)
- About the College (p. 580)
- College Website (<https://www.uakron.edu/health/>)

Students in nursing, dietetics, audiology, speech-language pathology, social work and other fields learn side by side so that as professionals, it will be natural to treat patients collaboratively.

Students benefit from close college ties with such health systems as the Cleveland Clinic Foundation, Summa Health System, Akron Children's Hospital, the Northeast Ohio Medical University and the Austin BioInnovation Institute in Akron. Students engage in state-of-the-art simulation experiences, gain clinical experience and spend ample time learning collaboratively with fellow students and seasoned professionals in many disciplines.

## Williams Honors College

- About the College (p. 674)
- College Website (<https://www.uakron.edu/honors/>)

The Williams Honors College supports high achieving and highly motivated students with challenging curriculum options, honors classes, academic scholarships, priority in registration, an opportunity to live in the Honors Residence Hall Complex, and enhanced computer and study facilities. Williams Honors College students who complete the requirements of their academic majors and of the Williams Honors College with cumulative grade-point averages of at least 3.40 are recognized at graduation as Williams Honors Scholars.

## Graduate School

[www.uakron.edu/gradsch/](http://www.uakron.edu/gradsch/) (<http://www.uakron.edu/gradsch/>)

The Graduate School offers advanced study to students who wish further education beyond the baccalaureate degree with programs leading to the master's degree as well as the doctoral degree. A separate publication detailing admission procedures and individual study requirements for graduate work is available from the Graduate School.

Graduate School

The University of Akron  
Polsky Building, Room 469  
Akron, OH 44325-2101

## School of Law

[www.uakron.edu/law](http://www.uakron.edu/law) (<http://www.uakron.edu/law/>)

The School of Law provides legal education through day and evening classes and full and part-time programs leading to the Juris Doctor degree. JD candidates typically begin studies in the fall semester, but they may begin in January. They may obtain Certificates in Litigation, Constitutional Law, Intellectual Property, and Health Law. JD candidates may also pursue the following joint degrees with other colleges: JD/MBA, JD/MTax, or JD/MSA in Financial Forensics (with the College of Business Administration), JD/MPA (Master of Public Administration, with the Department of Public Administration and Urban Studies), JD/MAP (Master of Applied Politics, with the Bliss Institute). The School of Law also offers an advanced degree, the LL.M. in Intellectual Property. JD students may enroll in the Joint JD/LL.M. Program, in which they can earn both degrees in three years. Otherwise, an applicant for the LL.M. program must have a JD degree from an American law school or an equivalent degree from a foreign law school. An applicant to the JD program must take the Law School Admission Test and have a baccalaureate degree from an accredited college or university for JD admission. No particular course of undergraduate study is required for admission. Also, an applicant with a foreign law degree may apply for an accelerated program to receive the JD in two years. The School of Law has recently added a Masters in the Studies of Law. An applicant to the MSL program is not required to take the Law School Admission Test. A separate publication detailing admission requirements and the procedure for applying may be obtained by calling (330)972-7331, or (800) 4-AKRON-U, or by e-mail: [lawadmissions@uakron.edu](mailto:lawadmissions@uakron.edu).

## Buchtel College of Arts and Sciences

### College Requirements

#### Admission

The Buchtel College of Arts and Sciences admits current University students who are not already in the college if they have satisfied the following criteria:

- Completed a minimum of 30 semester credit hours
- Completed at least 6 credits of English Composition for the general education requirement
- Completed at least 3 credits of mathematics or statistics applicable to the general education requirement
- Have a minimum grade-point average of 2.00 in all work attempted in the major field, including transfer work until 30 UA credits are earned (excluding Political Science which requires 2.2)
- Have a minimum grade-point average of 2.00 in all University work, including transfer work until 30 UA credits are earned (excluding Political Science, English, and Sociology which require 2.2; excluding The LeBron James Family Foundation School of Education which requires 2.5; and excluding Communication which requires 2.1)
- Music students must test into at least Theory I Placement and audition into at least 100 Applied Instruction; Dance students must successfully audition
- Received approval of the Dean of the College

## Transfer Students

Students transferring into the Buchtel College of Arts and Sciences from universities other than The University of Akron must satisfy the same Buchtel College of Arts and Sciences admission requirements as University of Akron students.

A student transferring to the School of Art from another institution must submit a portfolio of work for approval before admission. A student transferring from another college or institution into the music program must complete a placement examination and perform an audition. A student transferring from another college or institution into the Dance program must perform an audition.

## Other Admission

Students accepted into the Williams Honors College as arts and sciences majors are automatically admitted into the Buchtel College of Arts and Sciences. Incoming freshmen with appropriate credentials may receive direct admission to the Buchtel College of Arts and Sciences upon application.

## Baccalaureate Degrees

Requirements for the bachelor's degree include:

- Completion of the General Education (<https://www.uakron.edu/general-education/>) requirement
- Completion of requirements in a major field of study in the college. A major consists of a specified number of credits in addition to the required General Education and, in the case of most Bachelor of Arts and Bachelor of Science degrees, foreign language courses/proficiency. The exact requirements for each major are found in the respective curriculum guide
- All degrees require a minimum of 40 credits of:
  - 300/400-level courses in the student's major department, except workshops
  - 300/400-level courses outside the student's major department, except workshops
  - Courses outside the major department as specified and approved by the student's major advisor and the department chair or school director (permission should be obtained prior to enrollment), except workshops
  - For programs with restrictive external accreditation requirements, 200 level courses within the major may be identified as constituting advanced work by the student's advisor and department chair or school director (permission should be obtained prior to enrollment)
- Demonstration of ability to use English and, in the case of most Bachelor of Arts and Bachelor of Science degrees, another language:
  - For English, this ability will be shown by the completion of the General Education sequence for English Composition
  - For the other language, this ability will be shown by completion of the second year (202 at UA) of a foreign language at the University level. A student may place at any point in the language sequence so this is **not** a credit hour requirement but rather a course completion requirement for an Intermediate II course. Students who place above the 202 level must take one course to demonstrate proficiency. Demonstration of equivalent competence gained through non-academic "life experience" may be allowed through a test approved by the Department of Modern Languages contingent upon the availability of an appropriate test. The Department of Modern Languages does not offer credit by

examination. Native speakers of a language other than English may be exempted from the foreign language requirement upon providing evidence of competence in the four basic language skills (speaking, reading, writing and listening comprehension) at a level equivalent to or higher than successful completion of the second year of instruction in the language at the University level. No credit is granted for exemption from the foreign language requirement. Sign Language is acceptable toward the foreign language requirement. You must complete the five courses listed below (totaling 14 credits) in the sign language sequence to satisfy the requirement:

Code	Title	Hours
SLPA:222	Survey of Deaf Culture in America	2
SLPA:201 & SLPA:202	American Sign Language III and American Sign Language IV	6
SLPA:101 & SLPA:102	American Sign Language I and American Sign Language II	6

- Students in the Schools of Art and Music may apply not more than two credits of physical education activities to their degree; students in the School of Communication and in Theatre programs may apply not more than two credits of physical education activities, eight credits of applied music or four credits of music organizations to their degree; students in Dance programs may apply not more than two credits of physical education activities and 12 credits of dance organizations to their degree
- Attaining a minimum grade-point average of 2.00 for all courses in the major Department/School at The University of Akron, unless otherwise required by the major Department/School
- Fulfilling the University requirements for a baccalaureate degree

Any student who wishes to receive a second baccalaureate degree must complete 30 credits of coursework in addition to the credits necessary for the first degree; 15 of the 30 credits must be in 300/400-level courses or other approved courses.

## Degrees Awarded

- *Arts Division*: Bachelor of Arts, Bachelor of Fine Arts (Ceramics, Dance, Graphic Design, Jewelry & Metalsmithing, Photography, Painting/Drawing, Printmaking, Sculpture), Bachelor of Music
- *Education Division*: Bachelor of Arts, Bachelor of Science
- *Humanities Division*: Bachelor of Arts
- *Natural Sciences Division*: Bachelor of Arts, Bachelor of Science
- *Social Sciences Division*: Bachelor of Arts, Bachelor of Science, Associate of Applied Science in Criminal Justice Technology
- *Interdisciplinary Studies*: Bachelor of Arts, Bachelor of Science, Bachelor of Arts in Multidisciplinary Studies

## Interdisciplinary, Divisional and Partner Programs

### Bachelor of Arts in Multidisciplinary Studies

This degree meets the needs of students who have a multidisciplinary academic goal. It expands opportunities for non-traditional students to complete their degrees at The University of Akron by allowing them to combine courses in a structured manner from various colleges to design a program suited to their needs.

## Divisional Majors

### Biomedical Science

This divisional major provides for a broad background in science suited to students who intend to pursue careers or further education in a health science area. It is an appropriate major for those preparing for admission to professional programs in medicine, dentistry or veterinary science or for those desiring a Liberal Arts degree with a general emphasis in science. Additional coursework may be necessary for those planning graduate studies in a particular science discipline.

### Humanities

This divisional major is appropriate for those desiring a Liberal Arts degree with a general emphasis in the humanities. The humanities division consists of the Departments of English, Modern Languages and Philosophy. These disciplines and the disciplines of anthropology, classical studies, history and the creative and dramatic arts (art, music, theatre arts) are included in a prescribed manner in this divisional degree.

### Social Sciences

This divisional major is appropriate for those desiring a Liberal Arts degree with a general emphasis in the social sciences. The social sciences divisional degree tracks consist of coursework from the Departments of Economics, Political Science, Psychology, and Sociology. Students may select one of two specialized tracks:

- **Social Sciences — PPE Track:** The Social Sciences division PPE track consists of courses from the departments of Philosophy, Political Science and Economics.
- **Social Sciences — PSP Track:** The Social Sciences division PSP track (Understanding Ourselves and Others) consists of courses from the departments of Philosophy, Sociology, and Psychology.

## Early Assurance Pathway Program

The Early Assurance Pathway program is a partnership wherein current UA students apply for provisional admission to NEOMED in their sophomore year of college. Each year NEOMED will admit up to 35 UA students into the program.

Phase 1 is the undergraduate portion of the partnership. UA students may pursue any of UA's degree programs; however, it is recommended that students pursue the Bachelor of Science in Biomedical Science under the Biology department. This coursework meets the NEOMED admission requirements and focuses chiefly on studies in the humanities, social studies, and all basic premedical sciences to prepare students for the medical school curriculum. After students apply to NEOMED in their sophomore year and are provisionally admitted to the Early Assurance Pathway program, they complete their UA degree requirements, maintain the required grade point averages, achieve the required scores on the Medical College Admission Test (MCAT), and meet all other standards of readiness for medical education during their junior and senior years before being promoted directly to NEOMED for Phase 2 of the program.

Phase 2 consists of a four-year medical school course of study, at the NEOMED campus and at selected clinical campuses, leading to the M.D. degree.

## Early Acceptance Program (EAP)

The Early Acceptance Program (EAP) is a four-year undergraduate program of study at The University of Akron leading to Lake Erie College of Osteopathic Medicine (LECOM) with a reserved seat in their College of Osteopathic Medicine, School of Dental Medicine, or School of Pharmacy.

Each year LECOM can admit up to five UA students into their College of Osteopathic Medicine, School of Dental Medicine, or School of Pharmacy. Students can apply in their senior year of high school or before the start of their third year at The University of Akron. Phase 1 is the undergraduate curriculum at UA. UA students may pursue any of UA's degree programs, but it is recommended that students pursue the Bachelor of Science in Biomedical Science under the Biology department. Phase 2 is the is medical, dental, or pharmacy school at LECOM.

More information about the program can be found on the Pre-Health Partnerships information page (<https://www.uakron.edu/bcas/prehealth/partnerships/>).

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  - Anthropology, BA (p. 44)
  - Field Archaeology, Certificate (p. 46)
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  - Chemistry, BS (p. 95)
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- Public Communication, Minor (p. 111)
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  - Criminal Intelligence Analysis, BS (p. 120)
  - Criminal Justice Studies, AAS (p. 121)
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  - Dance, BFA (p. 133)
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  - Theatre Arts, BA (p. 137)
  - Theatre Arts, BAT (p. 139)
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  - AYA Physics Licensure, BA (p. 206)
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  - Music Education, Instrumental String, BM (p. 269)
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  - Music, String Performance, BM (p. 299)
  - Music, Voice Performance, BM (p. 302)
  - Music, Woodwind Performance, BM (p. 304)
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- Ethics, Minor (p. 314)
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- Law Enforcement Ethics, Certificate (p. 315)
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- Physics (p. 322)
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- Political Science (p. 326)
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  - Political Science, BA (p. 333)
  - Political Science, National Security, BA (p. 335)
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  - Research Methods for the Social Sciences, Certificate (p. 347)
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- Statistics (p. 350)
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  - Statistics, Actuarial Science, BS (p. 353)
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## Anthropology

### What is Anthropology?

Anthropology is

- the study of human societies and cultures and their development
- the study of human biological and physiological characteristics and their evolution
- the science that deals with the origins, physical and cultural development, biological characteristics, and social customs and beliefs of humankind
- the study of human beings' similarity to and divergence from other animals.
- the science of humans and their works
- Anthropology, BA (p. 44)
- Field Archaeology, Certificate (p. 46)
- Interdisciplinary Anthropology, Minor (p. 47)

## ANTH: Anthropology

### ANTH:101 Human Cultures (3 Credits)

This course examines what culture is, how human cultures vary and how they change. We then explore opportunities/conflicts presented by contemporary human cultural issues. (Formerly 3230:150)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Global Diversity

### ANTH:105 Human Evolution (4 Credits)

Study of biological evolution of Homo Sapiens, including primate comparisons and cultural development. One-hour laboratory using interactive computer programs, casts and Anthropology's cultural collection. (Formerly 3230:151)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### ANTH:110 Introduction to Archaeology (3 Credits)

Introduction to the study of ancient cultures based on material remains. Course covers basic archaeological concepts and tools, types of data and interpretation. (Formerly 3240:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

### ANTH:251 Human Diversity (3 Credits)

This course examines human diversity in global perspective by considering how and why human beings vary physically and ways categories of difference are culturally constructed. (Formerly 3230:251)

**Gen Ed:** - Social Science; - Global Diversity

### ANTH:300 Historical Archaeology (3 Credits)

This course explores recent developments in historical archaeology and how material culture can be used to study race, class, gender, and ethnic identities. (Formerly 3240:300)

### ANTH:309 Medicine & the Humanities (3 Credits)

Medical history, literature, and ethics from the perspective of the Humanities, with readings from original sources and literary works on medical subjects. (Formerly 3230:309)

**ANTH:310 Human Paleontology: The Australopithecines (3 Credits)**

Prerequisite: ANTH 105. A study of the fossil record of the earliest hominids of the Miocene and Pliocene epochs. (Formerly 3230:310)

**ANTH:311 Human Paleontology: Genus Homo (3 Credits)**

Prerequisite: ANTH 105. The origins of the Genus Homo and the evolution of anatomically modern Homo sapiens. (Formerly 3230:311)

**ANTH:313 Archaeology of Greece (3 Credits)**

The ruins and monuments of Greece; history reconstructed by examination of the material remains. No foreign language necessary. (Formerly 3240:313)

**ANTH:314 Archaeology of Rome (3 Credits)**

The ruins and monuments of Rome; history reconstructed by examination of the material remains. No foreign language necessary. (Formerly 3240:314)

**ANTH:315 Human Variation and Health (3 Credits)**

Human Variation and Health explores the global genetic and phenotypic diversity of modern humans. This course focuses on how natural selection has shaped global human diversity, how biocultural evolution has impacted humans, and how genetics and diseases are related. (Formerly 3230:315)

**ANTH:320 The Anthropology of Food (3 Credits)**

Utilizing anthropological approaches and theories, this course explores the social relations and cultural beliefs associated with food cross-culturally. (Formerly 3230:420)

**Gen Ed:** - Complex Issues Facing Society

**ANTH:340 Archaeology of Ohio (3 Credits)**

Provides a detailed overview of Ohio's prehistoric cultures and the early historic period focusing on cultural evolution and environmental relationships. (Formerly 3240:420)

**ANTH:345 Egyptology (3 Credits)**

Introduction to ancient Egyptian civilization, with emphasis on sites and artifacts representative of socio-political and ideological transformations from the Prehistoric through Ptolemaic Periods. (Formerly 3240:345)

**ANTH:357 Magic, Myth, & Religion (3 Credits)**

Analysis of the origins, roles, and functions of myth, magic and religion in a broad range of societies, with emphasis on the non-Western, pre-industrial societies. (Formerly 3230:357)

**ANTH:358 Indians of North America (3 Credits)**

Ethnographic survey of native cultures of North America, with emphasis on variations in ecological adaptations, social organization and modern American Indians in anthropological perspective. Lecture. (Formerly 3230:358)

**Gen Ed:** - Domestic Diversity

**ANTH:360 Ancient Near Eastern Archaeology (3 Credits)**

General survey of the archaeological material culture and written history of the ancient Near East. Covers principal human achievements from the Paleolithic to Alexander's conquest. (Formerly 3240:360)

**ANTH:365 Ancient Metallurgy (3 Credits)**

Metallurgy was a transformative technology for ancient societies. This class covers archaeological evidence for the early use of metals and their alloys. We will also discuss: (1) the structural and physical properties of metals; (2) the analytical techniques used to assess metals in materials science; (3) current archaeological explanations for how people used metal to fashion artifacts; and (4) the impact of metallurgy on different ancient cultures. This course is a mixed lecture, seminar, and laboratory course. (Formerly 3240:365)

**ANTH:368 Neolithic Revolution (3 Credits)**

Examination of the archaeological, zooarchaeological, paleobotanical, bioarchaeological, and genetic evidence for the earliest human manipulation and domestication of plants and animals. Evaluation of theoretical models for the origins of agriculture and the long-term implications of its adoption for human societies. (Formerly 3240:368)

**ANTH:370 Globalization and Culture (3 Credits)**

Prerequisite: [ANTH 101 or SOCIO 100]. A critical examination of socio-cultural processes of globalization that serve to complicate conventional notions of culture. Emphasizes how globalization affects a range of local places. (Formerly 3230:370)

**Gen Ed:** - Complex Issues Facing Society

**ANTH:381 History of Physical Anthropology (3 Credits)**

Prerequisite: ANTH 105. History of evolutionary theory pertaining to the biological origins of humans covering pre-Darwinian thought to the most recent fossil discoveries. (Formerly 3230:401)

**ANTH:382 Evolution and Human Behavior (3 Credits)**

Prerequisite: ANTH 105. Critical examination of the theory of natural selection and its usefulness for understanding the origins and evolution of early hominid and modern human social behavior. (Formerly 3230:410)

**ANTH:400 Introduction to Anthropological Data (3 Credits)**

Prerequisite: ANTH 101, ANTH 105 and ANTH 110. This course focuses on the characteristics of anthropological evidence through hands-on activities and examination of the uses of data in published works. (Formerly 3230:398)

**ANTH:404 Primates: Behavior, Morphology and Evolution (3 Credits)**

Prerequisite: ANTH 105. Extant primate diversity, behavior, morphology and primate paleontology. (Formerly 3230:304)

**ANTH:405 Anthropological Theory (3 Credits)**

Prerequisites: ANTH 101 and ANTH 105. Advanced seminar addressing the history of anthropological theory and current theoretical debates within the discipline. (Formerly 3230:359)

**ANTH:407 Archaeological Theory (3 Credits)**

Prerequisite: ANTH 110. Advanced seminar covering history of scientific archaeological exploration, major theoretical paradigms and current trends in archaeology. Required for Certificate in Field Archaeology. (Formerly 3240:400)

**ANTH:410 Archaeogeophysical Survey (3 Credits)**

Prerequisite: [ANTH 110 or GEOL 101 or GEOL 310]. Advanced instruction in principles of subsurface geophysical survey techniques in archaeology. Emphasizes magnetic gradiometry and electrical resistivity techniques. Includes both laboratory and fieldwork. (Formerly 3240:410)

**ANTH:416 Anthropology of Sex and Gender (3 Credits)**

Prerequisites: ANTH 101 or SOCIO 100. This course explores cross-cultural variation regarding sex, gender and sexuality. It examines the ways that cultures create, maintain and reproduce gender concepts and gender relations. (Formerly 3230:416)

**Gen Ed:** - Global Diversity

**ANTH:425 Human Osteology (3 Credits)**

Prerequisite: ANTH 105. An intensive study of bone, bone growth, and the human skeleton; ageing and sexing techniques; application of demographic techniques to paleoanthropological populations. (Formerly 3230:340)

**ANTH:430 Seminar: Human Origins (3 Credits)**

Prerequisite: ANTH 105. Advanced seminar addressing current discoveries and theoretical issues in human paleontology. Content varies by semester. (Formerly 3230:400)

**ANTH:440 Archaeological Laboratory Methods (3 Credits)**

Prerequisite: ANTH 110. Laboratory processing and study of lithic, ceramic, paleofaunal, paleobotanical, metallic, archaeological materials. Emphasis varies with instructor expertise. Involves instrumental or statistical analysis. (Formerly 3240:440)

**ANTH:450 Archaeological Field School (1-6 Credits)**

Prerequisite: ANTH 110 or permission. A field-based course teaching based archaeological techniques, mapping, excavation of prehistoric and historic sites, survey and documentation. (May be repeated for a maximum of 6 credits.) (Formerly 3240:450)

**ANTH:455 Archaeological Field Experience (1-6 Credits)**

Prerequisite: ANTH 110 or permission of instructor. This course provides students opportunities to participate in archaeological fieldwork in collaboration with academic, community, law enforcement, industry, and non-profit partners. (Formerly 3240:455)

**ANTH:457 Medical Anthropology (3 Credits)**

Prerequisite: ANTH 101 or permission of instructor. Analyzes various aspects of Western and non-Western medical systems from an anthropological perspective. Compares traditional medical systems around the world. (Formerly 3230:457)

**Gen Ed:** - Complex Issues Facing Society

**ANTH:460 Field Methods in Cultural Anthropology (4 Credits)**

Prerequisite: ANTH 101 or permission of instructor. Community-based research and service-learning course in which students design and undertake a project. Addresses ethics, data collection, management and analysis in collaboration with community partners. (Formerly 3230:460)

**Gen Ed:** - Complex Issues Facing Society

**ANTH:472 Special Topics: Anthropology (3 Credits)**

(May be repeated) Prerequisite: ANTH 101. Selected topics in anthropology. May include field schools, independent or faculty-led research, laboratory training or advanced course work not regularly offered by department. (Formerly 3230:472)

**ANTH:490 Anthropological Research (1-3 Credits)**

(May be repeated) Individual study of problem areas of specific interest to an individual student under guidance of a faculty member. (Formerly 3230:397)

**ANTH:497 Senior Honors Project in Anthropology (3 Credits)**

The topic and scope of this individually chosen project is directed by an Anthropology faculty member in conjunction with Honors College preceptors under the guidelines of the Honors College. (Formerly 3230:497)

## Anthropology, BA

### Bachelor of Arts in Anthropology (323000BAT)

- Archaeological Concentration
- Biological Concentration
- Cultural Concentration
- Classical Studies Concentration

The primary teaching mission of the Department of Anthropology is to graduate students who are well equipped as critical thinkers, readers, and writers to participate in the globalizing world. Specifically, we seek to provide a rigorous and robust education in the holistic study of human diversity. Anthropology studies all that encompasses being human: how we evolve, how we adapt, and how we live.

The primary research mission of the Department of Anthropology is to support faculty as they conduct active research, and contribute to scholarly exchange and knowledge development in their respective subfields (archaeology, cultural anthropology, and biological anthropology). The department recognizes the synergetic relationship between academic research and teaching. This recognition is realized in our commitment to experiential learning and undergraduate research. New students are introduced to the methods of cross-cultural comparison and experiment with a wide array of tools to identify and analyze patterns of cultural and biological variation and their causes. Advanced students learn to design and undertake original field-based research in the departmental subfields.

The following information has official approval of the **Department of Anthropology** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Students are encouraged to visit the Department of Anthropology their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Anthropology Core	16
	Additional Anthropology Courses	21
	Additional Credits for Graduation*	35
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

<b>Academic Foundations</b>	<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
CLAS:289	Mythology of Ancient Greece
CLAS:230	Sports & Society in Ancient Greece and Rome
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Foreign Language</i>		
101	Beginning I	
102	Beginning II	
201	Intermediate I	
202	Intermediate II	
SLPA:222	Survey of Deaf Culture in America	
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Anthropology Core

Code	Title	Hours
ANTH:101	Human Cultures	3
ANTH:105	Human Evolution	4
ANTH:110	Introduction to Archaeology	3
ANTH:400	Introduction to Anthropological Data	3
or SOCIO:301	Social Research Design	
ANTH:405	Anthropological Theory <sup>1</sup>	3

or ANTH:407 Archaeological Theory

Total Hours 16

## Additional Anthropology Courses

Code	Title	Hours
<b>Complete 21 credits:</b>		
<b>21</b>		
ANTH 3xx		
ANTH 4xx		
ANTH:405	Anthropological Theory <sup>1</sup>	
or ANTH:407	Archaeological Theory	
GEOG:405	Geographic Information Systems <sup>2</sup>	
or ENGL:371	Introduction to Linguistics	
<i>The following courses do not satisfy this requirement:</i>		
SOCIO:301	Social Research Design	
ANTH:400	Introduction to Anthropological Data	
Total Hours		21

<sup>1</sup> Students may take both ANTH:405 Anthropological Theory and ANTH:407 Archaeological Theory, in which case one counts as core and the other counts as an elective

<sup>2</sup> Students may substitute one, but not both, of the following courses as Electives: GEOG:405 Geographic Information Systems or ENGL:371 Introduction to Linguistics

Students must complete an additional 21 credits of ANTH courses at the 300-400 level. Students may take both ANTH:405 Anthropological Theory and ANTH:407 Archaeological Theory, in which case one counts as Core and the other counts as an Elective. Neither SOCIO:301 Social Research Design nor ANTH:400 Introduction to Anthropological Data may be counted as an Elective. Students may substitute one, but not both, of the following courses as Electives: GEOG:405 Geographic Information Systems or ENGL:371 Introduction to Linguistics. Students may earn no more than nine credits of Special Topics classes, which may include Unclasses, with the approval of the Anthropology faculty.

## Recommended Sequence

1st Year		Hours
Fall Semester		
MODL:101	Beginning Modern Language I	4
MATH:135	Mathematics for Everyday Life	3
COMM:105	Introduction to Public Speaking	3
ANTH:101	Human Cultures	3
ENGL:111	English Composition I	3
Hours		16
Spring Semester		Hours
MODL:102	Beginning Modern Language II	4
ENGL:112	English Composition II	3
ANTH:105	Human Evolution	4
CLAS:289	Mythology of Ancient Greece	3
Hours		14
2nd Year		Hours
Fall Semester		
ANTH:251	Human Diversity	3
MODL:202	Intermediate Modern Language II	3

CLAS:230	Sports & Society in Ancient Greece and Rome	3
HIST:251	U.S. History since 1877	3
ANTH:457	Medical Anthropology	3
Hours		15

**Spring Semester**

HIST:200	Empires of the Ancient World	3
ANTH:110	Introduction to Archaeology	3
GEOG:100	Introduction to Geography	3
MODL:201	Intermediate Modern Language I	3
GEOL:211	Introduction to Environmental Science	3
Hours		15

**3rd Year****Fall Semester**

ANTH:404	Primates: Behavior, Morphology and Evolution	3
ANTH:360	Ancient Near Eastern Archaeology	3
ANTH:416	Anthropology of Sex and Gender	3
ANTH:320	The Anthropology of Food	3
GEOG:405	Geographic Information Systems	3
Hours		15

**Spring Semester**

ANTH:340	Archaeology of Ohio	3
ANTH:370	Globalization and Culture	3
ANTH:310	Human Paleontology: The Australopithecines	3
GEOG:407	Advanced Geographic Information Systems	3
CLAS:363	Women in Ancient Greece and Rome	3
Hours		15

**4th Year****Fall Semester**

ANTH:405	Anthropological Theory	3
ANTH:425	Human Osteology	3
ANTH:460	Field Methods in Cultural Anthropology	4
ANTH:313	Archaeology of Greece	3
GEOG:444	Applications In Cartography & Geographic Information Systems	3
Hours		16

**Spring Semester**

ANTH:400	Introduction to Anthropological Data	3
ANTH:311	Human Paleontology: Genus Homo	3
ANTH:300	Historical Archaeology	3
ANTH:357	Magic, Myth, & Religion	3
HIST:319	Medieval Europe, 500-1200	3
Hours		15
Total Hours		121

## Field Archaeology, Certificate

### Certificate in Field Archaeology (324001C)

The Certificate in Field Archaeology (CFA) is designed for students interested in field archaeology as a career choice. Cultural resource management (CRM or "contract archaeology") is the fastest-growing area of archaeology in the United States due to legislation which requires an archaeological assessment of the impact of Federally-funded activities on prehistoric and historic cultural remains. This legislation has greatly increased the demand nationally for trained field archaeologists. The Certificate curriculum trains students to work in CRM by promoting a grounded understanding of archaeological principles and training in essential field methods and cutting-edge technology.

The Certificate in Field Archaeology (CFA) is a stand-alone certificate. Students are not required to enroll in a degree program.

**Program Contact**

*Dr. Patricia Connelly*  
*Professor of Instruction, Anthropology*  
 330-972-7138  
*connelly@uakron.edu*

The following information has official approval of the **Department of Anthropology** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Field Archaeology" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		15
Electives		3
Total Hours		18

## Required Courses

Code	Title	Hours
ANTH:110	Introduction to Archaeology	3
ANTH:300	Historical Archaeology	3
ANTH:340	Archaeology of Ohio	3
ANTH:440	Archaeological Laboratory Methods	3
ANTH:450	Archaeological Field School	3
Total Hours		15

## Electives

Code	Title	Hours
<b>Select 3 credits from:</b>		<b>3</b>
ANTH:410	Archaeogeophysical Survey	
GEOG:405	Geographic Information Systems	
GEOL:407	Archaeogeophysical Survey	

CRJU:253 Basic Forensic Methods

Total Hours 3

## Interdisciplinary Anthropology, Minor Minor in Interdisciplinary Anthropology (323000M)

### Program Contact

Dr. Patricia Connelly

Professor of Instruction, Anthropology

330-972-7138

connelly@uakron.edu (vinyard@uakron.edu)

The following information has official approval of the **Department of Anthropology** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Interdisciplinary Anthropology" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minimum of 6 credits must be completed at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		10
Electives		9
Total Hours		19

## Required Courses

Code	Title	Hours
ANTH:101	Human Cultures	3
ANTH:105	Human Evolution	4
ANTH:110	Introduction to Archaeology	3
Total Hours		10

## Electives

Code	Title	Hours
<b>Select 9 credits:</b>		<b>9</b>
ANTH:251	Human Diversity	
ANTH:516	Anthropology of Sex and Gender	
ANTH:550	Archaeological Field School	
ANTH 3xx	Anthropology	
ANTH 4xx	Anthropology	
Total Hours		9

## Art

### The Mary Schiller Myers School of Art

The mission of the Mary Schiller Myers School of Art at The University of Akron is to provide high-quality education in the fine arts, art history,

design, and art education. We provide excellence in teaching, research, and community service, contributing to the visual culture of the region and beyond.

## Points of Distinction

- Dynamic:** Vibrant Art + Design School focused on interdisciplinary undergraduate education.
- Engaged:** Myers faculty have international reputations as artists, designers and scholars.
- Community:** Myers art and design students build camaraderie in an open, accepting environment with the support and encouragement of their fellow students, faculty and staff.
- Urban:** The University of Akron celebrates its close ties to the lively arts scene in the city of Akron, where the arts and culture represent a \$1.4 billion industry.
- Experiential Learning:** Myers students work with stellar visiting artists and benefit from extensive domestic and international travel.
- Value:** Generous scholarships and grants provide a private school experience at the cost of a public education.

## Admissions

We are an open enrollment school, welcoming all students. New students to The University of Akron do not need to submit any additional materials or portfolio to join Myers School of Art.

The Myers School of Art offers students the close-knit experience of a small art school while also providing the benefits of being part of a larger university campus and structure.

## Foundation Program

"Foundation" is defined as the basis or fundamental principle on which something is founded.

The courses of the Foundation Program at the Myers School of Art are the basis upon which a career as an artist or graphic designer is built. The content covered in this series of classes will serve as a resource for students to draw on as they move into upper-level classes and then into their professional careers. This groundwork is established to enable students and faculty to focus intently on the interaction between media and content as applied to specific upper-level fine and applied arts disciplines.

The many concepts, media, and concerns covered are basic but should never be considered simple. They are in many ways the most complex topics with which art students struggle. The concepts that students investigate in these classes are the language and grammar that are the conventions of visual literacy. As the elements of our common language, these are concepts students must know fluently. As the convention of our discipline, their history must be understood and their application to contemporary art considered.

We recommend that all students pursuing a Bachelor of Fine Arts (BFA) or a Bachelor of Arts (BA) in Art Studio or Art Education take the following 3 studio courses their first semester in the program:

ART:131 Foundation Drawing I  
ART:144 Foundation 2D Design  
ART:145 Foundation 3D Design

All majors (BFA and BA) are required to pass the co-requisites ART:250 Foundation Lecture / ART:252 Foundation Studio which include

evaluation and further investigation of the topics covered in the Foundation Curriculum. These two courses should be taken the semester following completion of ART 131, ART 144 and ART 145. Students are given a total of 3 opportunities to successfully pass the Foundation Forum.

Additionally, BFA candidates are required to complete a Junior Review (reviews Sophomore/Junior-level work) and a Senior Exhibition (Senior-level work).

- Art Education, BA (p. 54)
- Art Studio with Minor, BA (p. 57)
- Ceramics, BFA (p. 59)
- Ceramics, Minor (p. 63)
- Drawing, Minor (p. 63)
- Emerging Technologies, Minor (p. 64)
- Graphic Design, BFA (p. 65)
- History Emphasis, Minor (p. 67)
- Illustration, Minor (p. 68)
- Jewelry & Metalsmithing, BFA (p. 68)
- Metalsmithing, Minor (p. 70)
- Painting & Drawing, BFA (p. 71)
- Painting, Minor (p. 72)
- Photography For Non-Art Majors, Minor (p. 73)
- Photography, BFA (p. 74)
- Photography, Minor (p. 75)
- Printmaking, BFA (p. 76)
- Printmaking, Minor (p. 78)
- Professional Photography, Minor (p. 78)
- Sculpture, BFA (p. 79)
- Sculpture, Minor (p. 81)

## ART: Art - Myers School of

### ART:100 Arts Orientation (0 Credits)

Corequisite: with first ART course. Orientation to the information and strategies necessary to aid new art students in their understanding of the field of art. (Formerly 7100:103)

### ART:101 Survey of Global Art 1: Prehistory to 1250 CE (3 Credits)

Prerequisite: ENGL 110 or ENGL 111. Introductory survey of world art from prehistory to c.1250 C.E. (Formerly 7100:100)

Gen Ed: - Arts; - Global Diversity

### ART:102 History of Global Art 2: 1250 CE - 1850 CE (3 Credits)

Prerequisite: ART 101. A survey of developments in art and culture across the globe from the Gothic period to the mid-nineteenth century (1250-1850 CE). (Formerly 7100:101)

Gen Ed: - Arts

### ART:103 History of Global Art 3: 1850 CE - Today (3 Credits)

Prerequisite: ART 102 or permission of instructor. The third component in a 3-part series of introductory art history courses, this class covers the modern era, from Realism, Impressionism, and the Pre-Raphaelites through the present moment. (Formerly 7100:102)

### ART:104 Visual Arts Application in the Elementary Classroom (3 Credits)

Exploration of methods, materials, processes and visual techniques relating two- and three-dimensional art experiences for the teacher of elementary children. No credit as an elective course for art majors. (Formerly 7100:104)

### ART:105 Introduction to Art Education (3 Credits)

An introduction to becoming Artist as Teacher in traditional school based and non-traditional community based settings. 10 hours field experience required. (Formerly 7100:105)

### ART:110 Introduction to New Media (3 Credits)

Students learn state of the art knowledge and activities of New Media. This course will be in addition or cross-listed with the NMED 100 course. (Formerly 7100:110)

### ART:111 Emerging Technologies (3 Credits)

This course provides a hands on introductory exploration of several technologies currently being used by the creative areas of Art and Design. (Formerly 7100:111)

### ART:131 Foundation Drawing I (3 Credits)

Corequisite: ART 100. Introduction to drawing materials and techniques with an emphasis on observation, representation, and formal principles of composition and design. (Formerly 7100:131)

### ART:132 Introduction to Design (3 Credits)

An introductory graphic design course focusing on teaching the principles and elements of design through theory and practice. (Formerly 7100:132)

### ART:144 Foundation 2D Design (3 Credits)

Fundamental information about the theory and practice of visual design as applied to surfaces, including composition, color and pictorial illusions with lecture and studio experience. (Formerly 7100:144)

### ART:145 Foundation 3D Design (3 Credits)

Introduction to meaning of "design" and act of designing in real space. Study of naturally occurring form, structure and process. (Formerly 7100:145)

### ART:184 Typography I (3 Credits)

Prerequisite: ART 132. Studio experience in concept development and processes, tools and materials of graphic designers. Elementary design problems in graphic design. (Formerly 7100:184)

### ART:189 Production I (3 Credits)

An introduction to graphic design industry standard software and hardware. Students learn proper development procedures for creating production-ready, professional digital files. (Formerly 7100:189)

### ART:210 Visual Arts Awareness (3 Credits)

Prerequisite: ENGL 110 or ENGL 111. Lecture course providing appreciation and understanding of arts of various types/periods with emphasis on topics and influences on societies, rather than historical sequence (Formerly 7100:210)

Ohio Transfer 36: Yes

Gen Ed: - Arts

### ART:213 Introduction to Printmaking (3 Credits)

Prerequisite: ART 131 or ART 144. A fast-paced introduction to traditional and contemporary high-tech/low-tech printmaking processes including relief, intaglio, lithography, and screenprint as well as digital printmaking. (Formerly 7100:213)

### ART:214 Relief/Screenprint (3 Credits)

Prerequisite: ART 213. An introduction to the history, process, and contemporary practice of relief printing and screenprinting. (Formerly 7100:214)

### ART:216 Intaglio/Lithography (3 Credits)

Prerequisite: ART 213. An introduction to the history, process, and contemporary practice of intaglio and lithographic printing. (Formerly 7100:216)



**ART:222 Introduction to Sculpture (3 Credits)**

Prerequisite: ART 145. Exploration of aesthetic factors influencing sculptural statements. Development of proficiency in the use of tools, materials and techniques. (Formerly 7100:222)

**ART:223 Sculpture: Stone (3 Credits)**

Prerequisite: ART 222. Beginning level lecture and studio course using both traditional hand tools for the creation of stone sculpture. History of the use of stone, evolution of stone working technology and contemporary artists working with stone. (Formerly 7100:223)

**ART:233 Introduction to Life Drawing (3 Credits)**

Prerequisite: ART 131. Perceptual problems in drawing from the life model. Study of skeletal, muscular, mechanical nature of human figure and application of this knowledge to the resolution of aesthetic problems. (Formerly 7100:233)

**ART:234 Anatomy for Artists (3 Credits)**

Prerequisite: ART 233. Studio/lecture experience in drawing and sculpture with an emphasis on human skeletal, muscular, and surface structure. (Formerly 7100:234)

**ART:243 Introduction to Painting (3 Credits)**

Prerequisite: ART 131. Study of aesthetic and technical problems involved in painting. Emphasis on painting from observation, and understanding of color in painting. (Formerly 7100:243)

**ART:244 Color Concepts (3 Credits)**

Prerequisites: ART 131 and ART 144. Lecture and studio experience giving information concerning perception of color, additive color phenomena of light, subtractive color phenomena of pigments and dyes, color notation systems and psychological effects of color. (Formerly 7100:244)

**ART:246 Introduction to Water-based Media (3 Credits)**

Prerequisites: ART 131 and ART 144. Experimentation with water-based media such as tempera, acrylic, and gouache. (Formerly 7100:246)

**ART:250 Foundation Lecture (1 Credit)**

Prerequisites: ART 131, ART 144, and ART 145. Corequisite: ART 252. Lecture is designed to broaden students' knowledge by including investigations into materials and technologies to synthesize an understanding in the visual arts. (Formerly 7100:250)

**ART:251 Watercolor (3 Credits)**

Prerequisites: ART 131 and ART 144. Students will investigate traditional and contemporary watercolor techniques and mixed media while addressing issues of composition and conceptual concerns. (Formerly 7100:251)

**ART:252 Foundation Studio (2 Credits)**

Prerequisites: ART 131, ART 144, and ART 145. Corequisite: ART 250. Studio course addresses theory and application of 2D and 3D skills to the production of artworks in preparation of the foundation forum: lecture and review. Studio course houses the Foundation Review, which all students are required to participate in for advancement to upper level coursework. (Formerly 7100:252)

**ART:254 Introduction to Ceramics (3 Credits)**

Prerequisites: ART 131 and ART 144. Studio/lecture course exploring potentials of hand-building techniques in both sculptural and functional forms. Clay processing, glaze application and practical kiln firing. (Formerly 7100:254)

**ART:266 Introduction to Metalsmithing (3 Credits)**

Prerequisite: ART 144 and ART 145. Studio experience in which student is introduced to properties of metals, processes of silversmithing and design and production of jewelry. (Formerly 7100:266)

**ART:273 Introduction to Digital Photography (3 Credits)**

Prerequisites: ART 131 and ART 144; or permission. An introductory digital photography course covering technical, aesthetic and conceptual issues. Digital camera with manual exposure controls required. No credit for photography majors. (Formerly 7100:273)

**ART:274 Photography I for Non-Art Majors (3 Credits)**

Film-based black and white photography including camera control, film processing, and darkroom printing. 35mm camera with full manual control required. No credit toward art major. (Formerly 7100:274)

**ART:275 Introduction to Photography (3 Credits)**

Prerequisites: ART 131 and ART 144. Film-based black and white photography including camera control, film processing and darkroom printing. 35mm film camera with full manual control required. (Formerly 7100:275)

**ART:276 Introduction to Commercial Photography (3 Credits)**

Prerequisite: ART 273, ART 274, or ART 275. Students are introduced to studio and location lighting techniques and related software applications while working through a series of photographic projects. (Formerly 7100:276)

**ART:280 Digital Media (3 Credits)**

Prerequisite: ART 189. An exploration of contemporary digital image capture, manipulation, output and distribution, emphasizing digital image concepts, aesthetics and production. (Formerly 7100:280)

**ART:281 Web and Devices I (3 Credits)**

Prerequisite: ART 189. This course introduces the process of planning, designing and producing industry standard websites. Emphasis on front-end development and the creative aspect of web design. (May be repeated for a total of six credits.) (Formerly 7100:281)

**ART:283 Drawing Techniques (3 Credits)**

Prerequisites: ART 131 and ART 189. Includes advanced drawing and presentation techniques commonly used in graphic design. Various presentation and design problems will be encountered stressing use of selected drawing methods and processes. (Formerly 7100:283)

**ART:288 Typography II (3 Credits)**

Prerequisite: ART 184. Introduction to typographic design to communicate. Study of letterforms, history, comping skills, layout design and digital technology. (Formerly 7100:288)

**ART:300 Art Since 1945 (3 Credits)**

Prerequisite: [ART 102 and ART 103] or permission of instructor. Consideration of significant developments in visual art forms since World War II in architecture, sculpture, printing, photography, metal, textile, ceramics, printmaking and graphic design. (Formerly 7100:300)

**ART:301 Medieval Art (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Painting, mosaics, architecture, sculpture, and luxury arts of medieval Europe from 4th through 14th centuries. (Formerly 7100:301)

**ART:302 Art in Europe During the 17th-18th Centuries (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Analysis of major European examples of architecture, landscape design, painting, prints and sculpture from beginning of the 17th century until approximately 1850. (Formerly 7100:302)

**ART:303 Italian Renaissance Art (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Study of architecture, painting and sculpture of Italy during 13th through 16th centuries. (Formerly 7100:303)

**ART:306 Renaissance Art in Northern Europe (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Painting, architecture, and sculpture of northern Europe from 14th through 16th centuries. (Formerly 7100:306)

**ART:307 History of Graphic Design (3 Credits)**

Prerequisite: ART 102 or permission of instructor. A lecture course analyzing the development of graphic design as an art form from Neolithic sources to the present. (Formerly 7100:307)

**ART:309 Greek Art (3 Credits)**

The course presents art and architecture of ancient Greeks, and focuses on major monuments, myths, rituals, socio-political constructs, and methodological issues associated with Greek art. (Formerly 7100:309)

**ART:310 Motion Design (3 Credits)**

Prerequisites: ART 280 and ART 288, or permission. Study of the history of moving images, principles of animation and motion graphics. Design in a non-linear environment, emphasis on narrative, video, type and image. (Formerly 7100:310)

**ART:311 UI/UX Design (3 Credits)**

Prerequisites: ART 280 and ART 288, or permission. Introduction to user interface and user experience design. Emphasis is on the design principles, type and image for screen design and the user experience. (Formerly 7100:311)

**ART:312 Roman Art & Architecture (3 Credits)**

Study of Roman art and architecture from the sixth century B.C.E. through the fourth century C.E. (Formerly 7100:312)

**ART:313 Survey of Asian Art (3 Credits)**

This course introduces the student to the historical, cultural, political, and religious aspects of civilization that influenced the aesthetics of Asian art. (Formerly 7100:313)

**ART:315 Ceramics for Non-Art Majors (3 Credits)**

Hand-building, glazing and kiln loading. Link skills to personal experience, ceramic history and contemporary art and craft issues. No credit toward a major in art. (Formerly 7100:253)

**ART:316 Biodesign (3 Credits)**

Prerequisite: Sophomore or greater standing or instructor permission. Biodesign combines an introduction into biomimicry/biomimetic design with a studio design exercise, using nature as a model for creating innovative solutions. (Formerly 7100:316)

**ART:317 Print Matrix (3 Credits)**

Prerequisites: ART 214 and ART 216. Intermediate printmaking class requiring the application of printmaking to the production of imagery for specific printmaking applications - Book Arts, Hybrid Prints, Serial Imagery, etc. (Formerly 7100:317)

**ART:318 Portrait Lighting (3 Credits)**

Prerequisite: ART 276. Studio and location lighting techniques for commercial and fine art portraiture. (Formerly 7100:318)

**ART:319 Printmaking Review (0 Credits)**

Prerequisite: ART 317. A committee of full-time faculty review portfolio of studio work completed in all printmaking courses. (Formerly 7100:319)

**ART:320 Product Photography (3 Credits)**

Prerequisite: ART 276. Professional skills are further developed via studio and tabletop photography assignments based on current trends in illustration and advertising photography. (Formerly 7100:320)

**ART:322 Sculpture II (3 Credits)**

Prerequisite: ART 222 or permission from instructor. Continuation of 222. Addresses more advanced techniques. May include fabrication, casting, carving, or assemblage. (May be repeated for a total of nine credits) (Formerly 7100:322)

**ART:323 Lost Wax Casting (3 Credits)**

Prerequisites: ART 222 or ART 266. Bronze and aluminum casting using the lost wax process. Students learn foundry techniques and apply them to individual artistic statements. (May be repeated for a total of six credits.) (Formerly 7100:323)

**ART:324 Installation Art (3 Credits)**

Prerequisite: ART 222. Lecture and studio course introducing the student to the medium of installation art, a major emphasis in the contemporary art scene. The history and evolution of installation art and its use by contemporary artists. (Formerly 7100:224)

**ART:330 New Media II (3 Credits)**

Prerequisite or Corequisite: ART 110 or ART 100. Students practice various New Media technologies. No prior art experience is required. This course will be in addition or cross-listed with the NMED 300 course (Formerly 7100:330)

**ART:335 Intermediate Life Drawing (3 Credits)**

Prerequisites: ART 233. Continued development of the content established in Life Drawing with additional emphasis on draped models, drawing materials and aesthetics. (May be repeated for a total of nine credits.) (Formerly 7100:335)

**ART:346 Intermediate Water-Based Media (3 Credits)**

Prerequisite: ART 246. Development of personal concepts and imagery through investigation of historical and contemporary styles, techniques, and issues. (May be repeated for six credits.) (Formerly 7100:346)

**ART:348 Intermediate Painting (3 Credits)**

Prerequisite: ART 243. Development of personal concepts and imagery through investigation of historical and contemporary styles and issues. (May be repeated for a total of six credits, but limited to a maximum of three credits in a given medium) (Formerly 7100:348)

**ART:350 Painting/Drawing Portfolio Review (0 Credits)**

Prerequisite: Two courses in ART 348 Intermediate Painting. A committee of full-time faculty review portfolio of student work completed in prerequisite courses. (Formerly 7100:350)

**ART:351 Intermediate Drawing (3 Credits)**

Prerequisite: ART 131. Investigation of a variety of strategies in contemporary drawing practices to strengthen observation, design, technique, and conceptual skills. Project based learning involving research, sketching, compositional design and development of a series of related work. (Formerly 7100:231)

**ART:353 Throwing (3 Credits)**

Prerequisite: ART 254. Emphasis on making pottery using the potter's wheel as well as organization and planning skills needed to make glazes and fire kilns. (Formerly 7100:353)

**ART:356 History of Craft (3 Credits)**

This course is designed to illuminate selected aspects of the history of the making of things as these apply to current practice in the crafts. (Formerly 7100:356)

**ART:365 Intermediate Jewelry (3 Credits)**

Prerequisite: ART 266. This class builds on acquired in Introduction to Metalsmithing. Emphasis will be placed on fine jewelry techniques including working with silver. (Formerly 7100:267)

**ART:366 Metalsmithing II (3 Credits)**

Prerequisite: ART 266. Continuation of experiences presented in 266 with further development of skills and expansion of technical knowledge. (May be repeated for a total of six credits) (Formerly 7100:366)

**ART:368 Color in Metals (3 Credits)**

Prerequisite: ART 266. Introduction to a variety of techniques to achieve and/or combine color in metals. Techniques such as anodizing aluminum, enameling and the application of color resins and plastics will be explored. (Formerly 7100:268)

**ART:369 Production for Jewelry (3 Credits)**

Prerequisite: ART 266. This class will investigate ways of producing artwork and jewelry in multiples and limited production runs. Attention will also be given to packaging, display, and marketing the work. (Formerly 7100:369)

**ART:370 History of Photography (3 Credits)**

Prerequisite: ART 103. A lecture course studying the history of photography from its invention to contemporary issues. (Formerly 7100:370)

**ART:374 Photography II for Non-Art Majors (3 Credits)**

Prerequisite: ART 274. Projects designed to expand the student's awareness of technical conceptual and aesthetic issues in photographic images. 35mm film camera with full manual control required. (Formerly 7100:374)

**ART:375 Photography II (3 Credits)**

Prerequisite: ART 275. Projects designed to expand student's awareness of technical, conceptual and aesthetic issues in photographic images. 35mm film camera with full manual control required. (Formerly 7100:375)

**ART:377 Medium and Large Format Photography (3 Credits)**

Prerequisite: ART 374 or ART 375. A technical course using medium and large format film cameras, which are furnished for the course's duration. Topics include camera movements, advanced exposure and development techniques. (Formerly 7100:377)

**ART:378 Alternative Photographic Processes (3 Credits)**

Prerequisites: ART 374 or ART 375. Exploration in alternative photographic processes using hand-coated Cyanotype, Van Dyke Brown and Platinum emulsions, with digitally created large-format negatives. (Formerly 7100:378)

**ART:380 Illustration (3 Credits)**

Prerequisite: ART 283 or permission of instructor. Application of painting and drawing skills and aesthetic sensitivity to specific commercial illustration and editorial art assignments. (May be repeated for a total of nine credits.) (Formerly 7100:380)

**ART:381 Digital Imaging II (3 Credits)**

Prerequisite: ART 280. Advanced digital imaging development and manipulation with an emphasis on preparation and use of digital images in print, multimedia and web applications. (Formerly 7100:381)

**ART:382 Graphic Design Junior Review (1 Credit)**

Prerequisites: ART 250, ART 252, and ART 288. Corequisites: ART 384 and ART 387. Junior level review by graphic design faculty. Students present a portfolio of work from specified courses that exemplify creative and technical competencies. (Formerly 7100:382)

**ART:384 Professional Design Practices (2 Credits)**

Prerequisite: ART 288. Corequisites: ART 382 and ART 387. Comprehensive overview of standard business practices specific to the graphic design field. Prepares students to work as interns in professional creative environments. (Formerly 7100:384)

**ART:385 3D Modeling, Printing and Prototyping (3 Credits)**

Prerequisite: ART 189. Computer imaging course with an emphasis in three-dimensional modeling and preparation of files for output to various 3D devices for production or screen. (May be repeated for a total of nine credits) (Formerly 7100:385)

**ART:387 Typography III (3 Credits)**

Prerequisite: ART 288. Corequisites: ART 382 and ART 384. Incorporation of typography, photography, and concept development into advertising and design composition. Emphasis is given to integration of type and image, typography structure and refinement. (Formerly 7100:387)

**ART:401 Special Topics: History of Art (1-3 Credits)**

(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisites: ART 102 or permission of instructor. Lecture course in which subject is specified each time course is offered. Focuses upon an art movement, time period, the production of a single artist or a specific art medium. (Formerly 7100:401)

**ART:402 Museology (3 Credits)**

Lecture course dealing with museum science, including museum history, staff structures, art handling, storage, and presentation and exhibit preparation. (Formerly 7100:402)

**ART:403 Art and Critical Theory (3 Credits)**

Prerequisites: ART 103 or permission of the instructor. This course, designed for both studio and art history majors, surveys the major theoretical currents in contemporary criticism and art history. (Formerly 7100:403)

**ART:405 History of Art Symposium (1-3 Credits)**

Prerequisite: One Art History course beyond ART 102 or permission of instructor. Lecture, individual research and evaluation, group discussion related to a specific time period or to an artistic problem. (May be repeated for credit when a different subject is indicated) (Formerly 7100:405)

**ART:407 Methods of Art History (3 Credits)**

Prerequisite: ART 102 or permission of the instructor. This course explores the history of the discipline and the permutations it has undergone since its establishment in the early years of the nineteenth century. (Formerly 7100:407)

**ART:409 Time-Based Media (3 Credits)**

Prerequisite: ART 280. Through the development of increasingly complex projects, students explore the conceptual and aesthetic considerations of creating motion media based presentations. (May be repeated for a total of six credits.) (Formerly 7100:409)

**ART:410 Methods of Teaching Elementary Art (3 Credits)**

Prerequisite: ART 105. Corequisite: ART 428. A field based course presenting the necessary skills and knowledge to successfully implement, plan, instruct, and assess a diverse art-based curriculum for the elementary classroom. (Formerly 7100:410)

**ART:411 Methods of Teaching Secondary Art (3 Credits)**

Prerequisite: ART 105. Corequisite: ART 429. A field based course presenting the necessary skills and knowledge to successfully implement, plan, instruct, and assess a diverse art-based curriculum for the secondary classroom. (Formerly 7100:411)

**ART:412 Student Teaching Colloquium (3 Credits)**

Prerequisites: Admission to the Art Education major, senior status, successful completion of field experience, and permission of instructor. Corequisite: EDSE 495. A lecture course providing support and guidance to develop the skills and knowledge necessary for a successful completion of the Education Teacher Performance Assessment, a 16 week classroom clinical experience, capstone project, and licensure in the field of Art Education. Students will gain practical experience in building a resume, applying for teaching positions, obtaining licensure, developing a portfolio and practicing pedagogical techniques in their classrooms. This course fulfills the General Education-Integrated and Applied Learning requirement. (Formerly 7100:412)

**Gen Ed:** - Capstone

**ART:418 Multiples and Multiplicity (3 Credits)**

Prerequisites: Student must have Junior standing and have completed at least one ART 300 level course in their major. Advanced printmaking class recommended for studio majors working with multiples, variability, and production requiring students to define and complete their own projects. (Formerly 7100:418)

**ART:419 Special Topics in Print (3 Credits)**

Prerequisite: ART 131 or ART 144 or ART 145. Investigation in specialized printmaking media like Photogravure, Digital Printing, and Book Arts among others. May be offered in conjunction with university sponsored residency or travel. (Formerly 7100:419)

**ART:420 Sculpture Portfolio Review (0 Credits)**

Prerequisite: ART 422. Corequisite: ART 422. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses. (Formerly 7100:420)

**ART:422 Advanced Sculpture (3 Credits)**

Prerequisite: ART 250 and ART 322. Development of individual points of view and sculptural statements. (May be repeated for a total of 15 credits.) (Formerly 7100:422)

**ART:423 Art Bomb Brigade: Methods for Creating Public Art (3 Credits)**

An experiential learning studio course in which students explore how artists work with community stakeholders to develop ideas for site specific mural projects. (Formerly 7100:423)

**ART:424 Middle School Materials & Techniques (3 Credits)**

A studio course exploring current topics and media/materials and techniques in middle school art education. (Formerly 7100:424)

**ART:425 Ceramics: Methods, Materials, & Concepts (3 Credits)**

Prerequisites: ART 131 and ART 145. (Lab) Ceramics for teachers. Introduces the potter's wheel, hand-building, firing kilns, history of ceramics and ceramic forms, safety in the studio and strategies for teaching ceramics. (Formerly 7100:425)

**ART:426 Early Childhood Art Education (3 Credits)**

A lecture course for art educators exploring visual arts as a vehicle for whole child development and learning across the curriculum in PK-5 school settings. (Formerly 7100:426)

**ART:427 Art in the Inclusive Classroom (3 Credits)**

Prerequisite: EDFN 220. Art education course exploring the use of art with diverse populations through lecture, hands on art making and site visitations. (Formerly 7100:427)

**ART:428 Elementary Field Exp: Art Licensure (1 Credit)**

Corequisite: ART 410. Instructional experience in the PK-6 art classroom to apply theory and research into practice. (Formerly 7100:428)

**ART:429 Secondary Field Exp: Art Licensure (1 Credit)**

Corequisite: ART 411. Instructional experience in the 7-12 art classroom to apply theory and research into practice. (Formerly 7100:429)

**ART:430 Professional Practices for Creative Careers (3 Credits)**

Studio course with experiential learning component introduces students to professional practices for securing creative careers after graduation. (Formerly 7100:430)

**ART:435 Contemporary Art Issues (3 Credits)**

Prerequisite: ART 103. Discussion course for advanced students in any visual arts discipline, dealing with concepts and critical theories related to current practice of the visual arts. (Formerly 7100:435)

**ART:440 New Media III (3 Credits)**

Pre/Corequisite: [ART 110 and ART 330] or [NMED 100 and NMED 300]. Students create their original New Media projects through proposals, productions, and a show. This course will be in addition or crosslisted with the NMED 400 course. (Formerly 7100:440)

**ART:450 Advanced Drawing/Life Drawing (3 Credits)**

Prerequisites: ART 351 and ART 335. Individual drawing projects exploring aesthetic and conceptual issues involving research, experimentation, and portfolio of a series of related work. (Formerly 7100:450)

**ART:452 Service Learning in Art (3 Credits)**

Prerequisite: Senior standing. An interdisciplinary, lecture/studio course that integrates fine art and design to promote understanding of the importance of sustained community outreach and serving as arts advocates. (Formerly 7100:452)

**ART:453 Advanced Throwing (3 Credits)**

Prerequisite: [ART 250 and ART 353] or permission of instructor. Emphasis on making pottery using the potters wheel beyond the beginning level including organization and planning skills needed to make and exhibit or sell items. (May be repeated for a total of six credits.) (Formerly 7100:453)

**ART:454 Advanced Ceramics (3 Credits)**

Prerequisite: ART 250 and ART 353. Emphasis on refinement of technique toward personal aesthetic statement in preparation for professional or private studio production. Student may choose a general survey of subject matter or a more concentrated area of study. (May be repeated for a total of 18 credits.) (Formerly 7100:454)

**ART:455 Advanced Painting (3 Credits)**

Prerequisites: ART 351 and ART 348. Exploration of aesthetic and conceptual issues involved in developing an individual stylistic approach to image making, leading to senior portfolio and BFA exhibition. (May be repeated for a total of 15 credits) (Formerly 7100:455)

**ART:456 Ceramic Portfolio Review (0 Credits)**

Prerequisite: ART 454. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite courses. (Formerly 7100:456)

**ART:457 Professional Practices (3 Credits)**

Prerequisite: Junior or Senior status. This course covers business, marketing and professional development practices, while also introducing students to issues and strategies in contemporary art. (Formerly 7100:457)

**ART:460 The Myers Forum: Studio (1-3 Credits)**

Prerequisites: ART 103 and ART 250, and successful completion of at least one 300 level course in the Myers School of Art, or permission of the instructor. Cross-disciplinary studio addressing current issues related to theory and practice of visual communication. (Formerly 7100:460)

**ART:461 The Myers Forum: Seminar (1-3 Credits)**

Prerequisites: ART 103 and ART 250, and successful completion of at one 300 level course in the Myers School of Art, or permission of the instructor. Cross-disciplinary seminar addressing current issues related to the theory and practice of visual communication. (Formerly 7100:461)

**ART:464 Painting/Drawing Senior Exhibition Preparation (0 Credits)**

Prerequisites: Senior standing, the second ART 455 Advanced Painting/Drawing. Preparation of the portfolio to be exhibited in the Senior Exhibition. (Formerly 7100:465)

**ART:465 Color in Metals II (3 Credits)**

Prerequisite: ART 368. Continuation of 368. Advanced projects designed to develop the student's aesthetic values in color in metals. Emphasis on individual approach and experimentation. (May be repeated for a total of 12 credits.) (Formerly 7100:368)

**ART:466 Advanced Metalsmithing (3 Credits)**

Prerequisites: ART 250 and ART 366. Investigation in depth of aesthetic and technical problems of metalsmithing. Student works on individual projects under guidance from instructor. (May be repeated for a total of 18 credits.) (Formerly 7100:466)

**ART:467 Metalsmithing Portfolio Review (0 Credits)**

Prerequisite: ART 466. Corequisite: ART 466. A committee of full-time faculty review portfolio of studio work completed in prerequisite courses. (Formerly 7100:467)

**ART:470 Emerging Technologies Studio (3 Credits)**

Prerequisite: ART 111. Emerging Technologies Studio focuses on the in-depth development of 2 major projects, one in 2D and one in 3D, specifically geared towards individual investigations in a student's specialty. Both projects are achieved by concentrating on the latest technologies available in the maker space at the Myers School of Art. (Formerly 7100:470)

**ART:471 Web and Devices II (3 Credits)**

Prerequisite: ART 281. Students learn dynamic back-end understanding of website development while maintaining an emphasis on design and creative solutions. (May be repeated for a total of six credits.) (Formerly 7100:471)

**ART:472 Photography III: Color for Non-Art Majors (3 Credits)**

Prerequisite: ART 374. Advanced level lecture, studio and lab experience in color photography introducing students to technical, aesthetic and conceptual issues of the medium. (Formerly 7100:472)

**ART:473 Photography III: Color (3 Credits)**

Prerequisite: ART 375. Advanced level lecture, studio and lab experience in color photography introducing students to technical, aesthetic and conceptual issues of the medium. (Formerly 7100:473)

**ART:474 Advanced Photography for Non-Art Majors (3 Credits)**

Prerequisite: ART 374. Studio course with emphasis on advanced individual projects. (Formerly 7100:474)

**ART:475 Advanced Photography (3 Credits)**

Prerequisites: ART 250, ART 375, and ART 473. Photographic media, light and photographic equipment manipulated experimentally to produce creative graphic images. Student works under guidance of instructor on advanced individual projects. (May be repeated for a total of 21 credits.) (Formerly 7100:475)

**ART:476 Photography Portfolio Review (0 Credits)**

Prerequisite: ART 475. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses. (Formerly 7100:476)

**ART:479 Professional Photographic Practices (3 Credits)**

Prerequisites: ART 475 and senior standing. Introduction to business and marketing practices in the fine art and commercial photography industry. Financial, legal, organizational, promotional, interpersonal, and ethical practices will be covered. (Formerly 7100:479)

**ART:480 Advanced Graphic Design (3 Credits)**

Prerequisite: ART 382 or permission of instructor. Student works on advanced-level individual projects under supervision of instructor. (May be repeated for a total of nine credits.) (Formerly 7100:480)

**ART:481 Design X Nine (3 Credits)**

Prerequisite: ART 382. Course focusing on professional business practices. Students chosen by portfolio review in junior year. Practical experience gained through working with clients and outside sources. (May be repeated for a total of nine credits.) (Formerly 7100:481)

**ART:482 Corporate Identity & Graphic Systems (3 Credits)**

Prerequisites: ART 382 and ART 384. Advanced projects in corporate identity and graphic systems analysis. Problem solving for these specific areas of graphic design within limitations of physical and digital reproduction. (Formerly 7100:482)

**ART:483 Graphic Design Presentation (3 Credits)**

Prerequisite: ART 482. Students prepare a professional portfolio and resume. The course includes project development, portfolio review and exhibition. (Formerly 7100:483)

**ART:485 Advanced Illustration (3 Credits)**

Prerequisite: ART 380 or permission of instructor. Development of a personal, unique visual voice. Exploration of traditional and/or digital approaches to illustration advancing technical proficiency, imaginative problem solving, and entrepreneurial thinking. (May be repeated for a total of nine credits) (Formerly 7100:485)

**ART:487 Packaging Design (3 Credits)**

Prerequisite: ART 382. Students solve packaging problems by synthesizing two and three-dimensional design concepts and researching materials and processes applicable to packaging of diverse products. (Formerly 7100:487)

**ART:488 Typography IV (3 Credits)**

Prerequisite: ART 387. Senior level investigation of complex sequential type systems; including publications, corporate communications and multi-application projects for comprehensive buildout while emphasizing preparation of files for various output. (Formerly 7100:488)

**ART:489 Special Topics in Studio Art (3 Credits)**

Group Investigation of Topics not offered elsewhere in curriculum. (May be repeated for credit when a different subject or level of investigation is indicated) (Formerly 7100:489)

**ART:490 Workshop in Art (1-4 Credits)**

Prerequisite: Advanced standing in art or permission of instructor. (May be repeated for credit when a different subject or level of investigation is indicated - ART 490 to maximum of eight credits; ART 590 to maximum of 12 credits). Group investigation of a particular phase of art not offered by other courses in curriculum. (Formerly 7100:490)

**ART:491 Architectural Present I (3 Credits)**

Prerequisite: ART 144. Studio practice in architectural design and presentation methods in residential and commercial interiors. (Formerly 7100:491)

**ART:492 Architectural Present II (3 Credits)**

Prerequisite: ART 491. Continuation of concepts covered in Architectural Presentations I with additional work in color rendering techniques. Emphasis on a variety of rendering mediums. (Formerly 7100:492)

**ART:493 Advanced Photography: Digital Printing (3 Credits)**

Prerequisites: ART 280 and ART 475. Digital technologies for fine-art photographers including scanning negatives; workflow; color management; image adjustment, correction and optimization; inkjet printing; and digital asset management. (Formerly 7100:493)

**ART:494 Special Topics: Art Education (1-3 Credits)**

May be repeated for credit when a different subject or level of investigation of topics of interest to the art education student is not covered elsewhere in the curriculum. (Formerly 7100:494)

**ART:495 Senior Exhibition (0 Credits)**

Prerequisite: Senior standing and permission. Exit review of work from B.F.A. candidate's major courses. (Formerly 7100:495)

**ART:496 Art Internship/Professional Experience (1-6 Credits)**

Prerequisites: Junior standing in major program and permission of Internship Director. In-depth professional training affording the intern on-the-job experience in selected areas of specialization. (Repeatable for credit. No more than six credits of internship may apply toward the elective requirement for completion of any art department major.) (Formerly 7100:496)

**ART:497 Independent Study: Art (1-7 Credits)**

Prerequisites for art majors: completion of at least one advanced course in the major with a grade of A or A- and permission of instructor. Investigation in depth of aesthetic and technical problems within a studio-selected area of specialization. Student must present in writing a proposed study plan and time schedule for instructor approval. Prerequisites for non-art majors: permission of instructor. (May be repeatable for seven credits). (Formerly 7100:497)

**ART:498 Senior Thesis in the History of Art (1-3 Credits)**

Prerequisites: 14 credits in art history and permission of instructor. Individual research in art history centered around limited topic, such as specific time period, history of specific techniques, a single artist or movement in art history. No more than 10 credits will be counted toward major. (May be repeated for credit when a different subject or level of investigation is indicated) (Formerly 7100:498)

**ART:499 Honors in Art (3 Credits)**

Prerequisites: Senior standing in the Honors Program and approval of honors project by faculty advisor. To be used for research in the Honors Program established by student and his/her adviser(s). (May be repeated for a total of six credits) (Formerly 7100:499)

## Art Education, BA

### Bachelor of Arts in Art Education (C10200BA)

More on the Art Education major (<https://www.uakron.edu/art/academics/art-education.dot>)

The Art Education program in the Mary Schiller Myers School of Art consists of a core curriculum of theory and practice that prepares students to work in a variety of organizational settings, from PK-12 schools to museums and community arts organizations.

### Purpose

The purpose of this program is to enable students to develop the range of knowledge, skills, and competencies expected of those holding a liberal-arts baccalaureate degree in art and professional preparation in art education. P, K-12 licensed school art teachers who graduate from this program are expected to exhibit a high level of skills as artists, designers,

and educators. Students benefit from excellent art, history, and theory instruction, and professionally equipped art and technology studios, while obtaining licensure from the College of Education through highly academic and interactive coursework.

### Goals

The following basic goals/competencies are essential to all prospective art teachers:

- To foster competencies with the basic expressive, technical, procedural and organizational skills, and conceptual insights developed through studio art and design experiences.
- To facilitate an understanding of the major styles and periods of art history, analytical methods, and theories of criticism.
- To help students connect an understanding of educational processes and structures with an understanding of relationships among the arts, sciences, and humanities, in order to apply art competencies in teaching situations and to integrate art/design instruction into the total process of education.
- To assist teachers in developing the knowledge and skills to customize and differentiate learning for learners with a range of individual differences. To aid pre-service teachers in developing curricular, instructional, and assessment strategies for building 21st Century cross-disciplinary skills for K-12 students (communication, collaboration, critical thinking, and the use of technology).
- To help students develop effective assessment strategies for collecting data and using it to improve instruction and support learner success.

### Distinctions

Students are presented with a broad range of facilities and opportunities while pursuing their BA in Art Education such as:

- Gain hands-on experience working with diverse student populations in clinical experiences.
- Obtain personalized job placement assistance (85% average full-time placement rate for graduating teachers)
- Exhibit in shows both within the university and beyond in regional venues.
- Network through student organizations like CAT (Coalition for Art Teachers) and at Ohio Art Education Association conferences.
- Participate in Arts LIFT (award-winning community-based art education program) Art Bomb Brigade (Knight funded mural arts program) and other University-sponsored outreach initiatives.

The following information has official approval of **The Mary Schiller Myers School of Art** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the

program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	31
	Art Core Requirements	42
	Advanced Art History	3
	Advanced Studio Core	6
	Education Courses	20
	Art Education Courses	26
	<b>Total Hours</b>	<b>128</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	ART:101 Survey of Global Art 1: Prehistory to 1250 CE	
	ART:102 History of Global Art 2: 1250 CE - 1850 CE	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## College of Arts & Sciences Requirement

**Code Title Hours**

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Art Core Requirements

Code	Title	Hours
ART:100	Arts Orientation	0
ART:101	Survey of Global Art 1: Prehistory to 1250 CE <sup>1</sup>	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE <sup>2</sup>	3
ART:103	History of Global Art 3: 1850 CE - Today	3
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:213	Introduction to Printmaking	3
ART:189	Production I	3
ART:222	Introduction to Sculpture	3
ART:243	Introduction to Painting	3
	or ART:246 Introduction to Water-based Media	
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
ART:254	Introduction to Ceramics	3
ART:266	Introduction to Metalsmithing	3
ART:273	Introduction to Digital Photography	3
	or ART:275 Introduction to Photography	
	<b>Total Hours</b>	<b>42</b>

<sup>1</sup> Applies to General Education Arts Requirement

<sup>2</sup> Applies to General Education Arts and Global Diversity Requirements

## Advanced Art History

Code	Title	Hours
<b>Complete one of the following (3 credits):</b>		
ART:300	Art Since 1945	3
ART:301	Medieval Art	
ART:302	Art in Europe During the 17th-18th Centuries	
ART:303	Italian Renaissance Art	
ART:306	Renaissance Art in Northern Europe	
ART:307	History of Graphic Design	
ART:309	Greek Art	
ART:312	Roman Art & Architecture	
ART:313	Survey of Asian Art	
ART:356	History of Craft	

ART:370	History of Photography
ART:401	Special Topics: History of Art
ART:402	Museology
ART:403	Art and Critical Theory
ART:405	History of Art Symposium
ART:407	Methods of Art History
ART:435	Contemporary Art Issues
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Total Hours	3

## Advanced Studio Core

Code	Title	Hours
<b>Complete two of the following (6 credits):</b>		<b>6</b>
ART:311	UI/UX Design	
ART:317	Print Matrix	
ART:318	Portrait Lighting	
ART:320	Product Photography	
ART:322	Sculpture II	
ART:335	Intermediate Life Drawing	
ART:348	Intermediate Painting	
ART:353	Throwing	
ART:366	Metalsmithing II	
ART:369	Production for Jewelry	
ART:375	Photography II	
ART:377	Medium and Large Format Photography	
ART:378	Alternative Photographic Processes	
ART:380	Illustration	
ART:381	Digital Imaging II	
ART:385	3D Modeling, Printing and Prototyping	
ART:387	Typography III	
ART:409	Time-Based Media	
ART:418	Multiples and Multiplicity	
ART:419	Special Topics in Print	
ART:422	Advanced Sculpture	
ART:423	Art Bomb Brigade: Methods for Creating Public Art	
ART:425	Ceramics: Methods, Materials, & Concepts	
ART:450	Advanced Drawing/Life Drawing	
ART:453	Advanced Throwing	
ART:454	Advanced Ceramics	
ART:455	Advanced Painting	
ART:460	The Myers Forum: Studio	
ART:465	Color in Metals II	
ART:466	Advanced Metalsmithing	
ART:471	Web and Devices II	
ART:473	Photography III: Color	
ART:475	Advanced Photography	
ART:485	Advanced Illustration	
ART:487	Packaging Design	
ART:489	Special Topics in Studio Art	
ART:493	Advanced Photography: Digital Printing	
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Total Hours		6

## Education Courses

Code	Title	Hours
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:495	Student Teaching: Secondary Education	11
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
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Total Hours		20

## Art Education Requirements

Code	Title	Hours
ART:105	Introduction to Art Education	3
ART:410	Methods of Teaching Elementary Art	3
ART:411	Methods of Teaching Secondary Art	3
ART:412	Student Teaching Colloquium	3
ART:428	Elementary Field Exp: Art Licensure	1
ART:429	Secondary Field Exp: Art Licensure	1
ART:430	Professional Practices for Creative Careers	3
ART:423	Art Bomb Brigade: Methods for Creating Public Art	3
ART:424	Middle School Materials & Techniques	3
ART:494	Special Topics: Art Education	3
or ART:426	Early Childhood Art Education	
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Total Hours		26

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
	Writing Requirement <sup>1</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>1</sup>	3
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Hours		15
<b>Spring Semester</b>		
ART:101	Survey of Global Art 1: Prehistory to 1250 CE <sup>2</sup>	3
ART:213	Introduction to Printmaking	3
ART:254	Introduction to Ceramics	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
	Writing Requirement <sup>1</sup>	3
	Social Sciences Requirement <sup>1</sup>	3
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Hours		18
<b>2nd Year</b>		
<b>Fall Semester</b>		
ART:222	Introduction to Sculpture	3
ART:246	Introduction to Water-based Media	3
or ART:243	or Introduction to Painting	
ART:273	Introduction to Digital Photography	3
or ART:275	or Introduction to Photography	



ART:102	History of Global Art 2: 1250 CE - 1850 CE (Tier II Arts and Tier III GD)	3
COMM:105	Introduction to Public Speaking	3
	Natural Sciences w/ lab Requirement <sup>1</sup>	4
	Hours	19
<b>Spring Semester</b>		
ART:266	Introduction to Metalsmithing	3
ART:105	Introduction to Art Education	3
ART:103	History of Global Art 3: 1850 CE - Today	3
EDFN:220	Educational Psychology	3
EDIS:225	Introduction to Exceptionalities	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
	Hours	15
<b>3rd Year</b>		
<b>Fall Semester</b>		
ART:189	Production I	3
ART:424	Middle School Materials & Techniques	3
ART:410	Methods of Teaching Elementary Art	3
ART:428	Elementary Field Exp: Art Licensure	1
EDCI:440	Literacy in the Content Areas	3
	Humanities Requirement <sup>1</sup>	3
	Hours	16
<b>Spring Semester</b>		
ART:423	Art Bomb Brigade: Methods for Creating Public Art	3
ART:430	Professional Practices for Creative Careers	3
ART XXX	(300-400) UL Art History Elective	3
	Domestic Diversity Requirement <sup>1</sup>	3
	Complex Issues Requirement <sup>1</sup>	3
	Hours	15
<b>4th Year</b>		
<b>Fall Semester</b>		
ART:494	Special Topics: Art Education	3
ART:411	Methods of Teaching Secondary Art	3
ART:429	Secondary Field Exp: Art Licensure	1
ART XXX	(300-400 level) UL Art Studio Elective	3
	Natural Sciences Requirement <sup>1</sup>	3
	Social Sciences Requirement <sup>1</sup>	3
	Hours	16
<b>Spring Semester</b>		
ART:412	Student Teaching Colloquium	1
EDSE:495	Student Teaching: Secondary Education	11
	Hours	12
	Total Hours	126

<sup>1</sup> See Adviser when choosing this course

<sup>2</sup> Satisfies General Education Arts Requirement

## Art Studio with Minor, BA Bachelor of Art, Studio Emphasis (C10001BA)

More on the Studio Emphasis major (<https://www.uakron.edu/art/academics/>)

The Bachelor of Arts Studio is an interdisciplinary, liberal arts degree, in which students are permitted to self-design the required suite of 42 studio electives around their interests in varying media within the School of Art. BA Studio Art Majors must complete a Minor Area Course of Study, two years of a foreign language, or five courses in American Sign Language.

The following information has official approval of **The Mary Schiller Myers School of Art** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Art History Requirements	9
	Advanced Art History	3
	Studio Art Core	12
	Studio Art Requirements	33
	Internship and Professional Practices Requirement	6
	University Electives	5
	Additional Credits for Graduation *	4
	Total Hours	120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	
ART:102	History of Global Art 2: 1250 CE - 1850 CE	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the completion of a minor or demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Complete a minor, which is outside of the Myers School of Art, approved by a Myers School of Art faculty advisor</i>		18
-or-		
<i>Foreign Language</i>		14
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		
-or-		
Five courses in American Sign Language		
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
Total Hours		9

## Advanced Art History

Code	Title	Hours
<b>Complete one of the following:</b>		
		<b>3</b>
ART:300	Art Since 1945	
ART:301	Medieval Art	
ART:302	Art in Europe During the 17th-18th Centuries	
ART:303	Italian Renaissance Art	
ART:306	Renaissance Art in Northern Europe	
ART:307	History of Graphic Design	
ART:401	Special Topics: History of Art	
ART:402	Museology	
ART:403	Art and Critical Theory	
ART:405	History of Art Symposium	
ART:407	Methods of Art History	
ART:490	Workshop in Art	
ART:498	Senior Thesis in the History of Art	
Total Hours		3

## Studio Art Core

Code	Title	Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
Total Hours		12

## Studio Art Requirements

Code	Title	Hours
<b>Select 33 studio elective credits from at least six different studio disciplines.</b>		
<i>Disciplines: Ceramics, Drawing, Graphic Design, Metalsmithing, Painting, Photography, Printmaking, Sculpture, Computer Imaging, Illustration, Commercial Photography</i>		
Discipline 1		
ART:131	Foundation Drawing I	
Discipline 2		
Discipline 3		
Discipline 4		
Discipline 5		

Discipline 6	
Total Hours	33

## Internship and Professional Practices Requirement

Code	Title	Hours
<b>Select one course from each area:</b>		
<i>Internship or Service Learning</i>		3
ART:496	Art Internship/Professional Experience	
ART:452	Service Learning in Art	
<i>Professional Practices</i>		3
ART:430	Professional Practices for Creative Careers	
ART:457	Professional Practices	
ART:479	Professional Photographic Practices	
Total Hours		6

## University Electives

Code	Title	Hours
<b>Course substitution to reduce total number of electives might be necessary if student meets minimum 120 credits through required coursework</b>		
		5

## Recommended Sequence

1st Year		
Fall Semester		Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
	Writing Requirement <sup>1</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>1</sup>	3
Hours		15

Spring Semester		
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
ART:101	Survey of Global Art 1: Prehistory to 1250 CE <sup>2</sup>	3
	Writing Requirement <sup>1</sup>	3
	Social Sciences Requirement <sup>1</sup>	3
ART:XXX	Studio Elective	3
Hours		15

2nd Year		
Fall Semester		Hours
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
COMM:105	Introduction to Public Speaking	3
	Natural Sciences w/ lab Requirement <sup>1</sup>	4
ART:XXX	Studio Elective	2
ART:XXX	Studio Elective	3
Hours		15

Spring Semester		
ART:XXX	Studio Elective (Discipline 3)	3

ART:XXX	Studio Elective (Discipline 4)	3
ART:103	History of Global Art 3: 1850 CE - Today	3
	Minor or Language Course	3
	Social Science Requirement	3
Hours		15

3rd Year		
Fall Semester		Hours
ART:XXX	Studio Elective (Discipline 5)	3
ART:XXX	Studio Elective (Any Discipline)	3
ART:300-400	Art History Elective	3
	Minor or Language Course	3
	Open Elective	3
Hours		15

Spring Semester		
ART:XXX	Studio Elective (Discipline 6)	3
ART:XXX	Studio Elective (Any Discipline)	3
	Minor or Language Course	3
	Humanities Requirement	3
	Natural Science Requirement	3
Hours		15

4th Year		
Fall Semester		Hours
ART:XXX	Studio Elective (Any Discipline)	3
ART:XXX	Studio Elective (Any Discipline)	3
	Domestic Diversity Requirement	3
	Minor or Language Course	3
	Open Elective	3
Hours		15

Spring Semester		
ART:496	Art Internship/Professional Experience	1-6
ART:530	Professional Practices for Creative Careers	3
	Complex Issues Requirement	3
	Global Diversity Requirement	4
	Open Elective	2
Hours		13-18
Total Hours		118-123

<sup>1</sup> See Adviser when choosing this course

<sup>2</sup> Satisfies General Education Arts Requirement

## Ceramics, BFA

### Bachelor of Fine Arts in Ceramics (C10009BFA)

More on the Ceramics major (<https://www.uakron.edu/art/academics/ceramics.dot>)

The ceramics program at the Mary Schiller Myers School of Art is assembled on the belief that students can learn through doing: assembling hand-skills through practice, thinking through sketching and growing as artists by undertaking rigorous driven practice.

Education pioneer John Dewey wrote in *Art as Experience*, "we do not learn from experiences, we truly learn by reflecting on our experiences." In keeping

with this thinking, the curriculum at the Myers School of Art explores the history of ceramics and uses that knowledge to consider the future of the medium. Clay and ceramics as a material have developed alongside humanity since the earliest periods of civilization. In that time knowledge has been passed on through demonstration, practical instruction and the exchange that comes with the discussion of novel ideas.

The program at the Myers School of Art explores art making by considering the historical and cultural meaning of ceramic materials, as well as examining the importance of objects. Students are asked to draw on their personal experience with the world of things and then consider new possibility and uses for such items. In support of the creation of individual work, we include lectures, demonstrations, hands-on experiences and experimentation which allow students to develop the knowledge of processes and the skills necessary to production of their ceramic works.

## Purpose

The ceramics program at the University of Akron's Myers School of Art offers a comprehensive forward-thinking undergraduate education, which will prepare students for work as visual artists and independent thinkers. The program is structured so students may consider careers in ceramics, or further graduate education in the visual arts at the countries leading Masters of Fine Arts Programs.

The program aims to offer students a wide range of ceramic techniques and firing methods. The ceramics program at the Myers School of Art provides the highest quality of instruction and support to facilitate students learning and the development of their personal artistic voice.

## Goals

Students majoring in Ceramics at the University of Akron will develop:

- Skills for a useful future in the field of fine art.
- A focused understanding of the contemporary continuum of clay.
- Knowledge of the historical uses, importance, and aesthetics of ceramics.
- A tactile understanding of clay materials and their potential.
- Develop a set of problem-solving skills, methods of critical thinking, ideation, and the ability to talk about artwork.
- Reflective ways to self-evaluate and consider developing their own artwork.
- Develop the ability to transfer tactile skills to other media while figuring out how to draw in skills from other areas.
- The ability to operate and control a wide range of ceramics' firing temperatures and atmospheres in various kilns including bisque, glaze, oxidation, reduction, salt firing, and raku firing.
- Skills of building ceramic forms by hand, on a potter's wheel, by slipcasting and employing digital technology.
- Knowledge about the formulation of clay bodies, glazes and ceramics coatings for the widest range of color choices.
- Synthesize periodic assignments, and individual ideas into a unique voice and style of producing individual ceramic artwork.

## Distinctions

Students at The University of Akron are presented with a broad range of skills and opportunities to develop their personal voice while pursuing a BFA in Ceramics, including:

- Large open studio spaces programmed to facilitate collaboration and a sense of community.
- More than 15 kilns able to fire in the widest range of oxidation, reduction, salt/soda atmosphere, as well as raku and smoke firing.
- A highly functional fully stocked glaze laboratory.
- Clay making facilities replete with a wide range of clay types.
- Access to cutting edge technology like 3D stereolithographic printing, decal printers, vinyl cutters, and a laser cutter.
- Access to a wide range of exhibition opportunities.
- Assistance finding and developing grant proposals.
- Opportunities to develop an understanding of the social aspects of the world's oldest three-dimensional material.

The following information has official approval of **The Mary Schiller Myers School of Art** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Foundation Core	12
	Art History Requirements	15
	Ceramics Requirements	15
	Advanced Ceramics Requirement	12
	Studio Electives	24
	Electives	6
	Additional Credits for Graduation *	2
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	
ART:102	History of Global Art 2: 1250 CE - 1850 CE	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Foundation Core

Code	Title	Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
Total Hours		12

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
ART XXX	Advanced Level Art History	3
<b>Choose one of the following:</b>		<b>3</b>
ART:300	Art Since 1945	
ART:403	Art and Critical Theory	
ART:435	Contemporary Art Issues	
Total Hours		15

## Ceramics Requirements

Code	Title	Hours
ART:222	Introduction to Sculpture	3
ART:254	Introduction to Ceramics	3
ART:489	Special Topics in Studio Art	3
ART:353	Throwing	3
ART:457	Professional Practices	3
or ART:430	Professional Practices for Creative Careers	
ART:456	Ceramic Portfolio Review	0
ART:495	Senior Exhibition	0
Total Hours		15

## Advanced Ceramics Requirements

Code	Title	Hours
<b>Complete 12 credits:</b> <sup>1</sup>		<b>12</b>
ART:454	Advanced Ceramics	
ART:453	Advanced Throwing	
Total Hours		12

<sup>1</sup> Advanced Ceramics must be repeated for a minimum of 9, and may be repeated for a maximum of 12 credits. Advanced Throwing may be substituted for 3 credits only.

## Studio Electives

Code	Title	Hours
<b>Complete 24 Credits</b>		
ART:111	Emerging Technologies	
ART:132	Introduction to Design	
ART:189	Production I	
ART:213	Introduction to Printmaking	
ART:214	Relief/Screenprint	
ART:216	Intaglio/Lithography	
ART:223	Sculpture: Stone	
ART:233	Introduction to Life Drawing	
ART:234	Anatomy for Artists	
ART:243	Introduction to Painting	
ART:244	Color Concepts	
ART:246	Introduction to Water-based Media	
ART:251	Watercolor	
ART:266	Introduction to Metalsmithing	

ART:273	Introduction to Digital Photography
ART:275	Introduction to Photography
ART:276	Introduction to Commercial Photography
ART:280	Digital Media
ART:281	Web and Devices I
ART:283	Drawing Techniques
ART:317	Print Matrix
ART:318	Portrait Lighting
ART:320	Product Photography
ART:322	Sculpture II
ART:323	Lost Wax Casting
ART:324	Installation Art
ART:335	Intermediate Life Drawing
ART:348	Intermediate Painting
ART:365	Intermediate Jewelry
ART:366	Metalsmithing II
ART:368	Color in Metals
ART:369	Production for Jewelry
ART:377	Medium and Large Format Photography
ART:380	Illustration
ART:381	Digital Imaging II
ART:385	3D Modeling, Printing and Prototyping
ART:418	Multiples and Multiplicity
ART:419	Special Topics in Print
ART:422	Advanced Sculpture
ART:423	Art Bomb Brigade: Methods for Creating Public Art
ART:450	Advanced Drawing/Life Drawing
ART:455	Advanced Painting
ART:465	Color in Metals II
ART:466	Advanced Metalsmithing
ART:473	Photography III: Color
ART:475	Advanced Photography
ART:479	Professional Photographic Practices
ART:485	Advanced Illustration
ART:489	Special Topics in Studio Art
ART:493	Advanced Photography: Digital Printing
ART:496	Art Internship/Professional Experience
ART:499	Honors in Art
Total Hours	24

## Electives

Code	Title	Hours
<b>Complete 6 Credits</b>		<b>6</b>
Total Hours		6

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3

Writing Requirement	3
Mathematics, Statistics, and Logic Requirement	3
Hours	15

### Spring Semester

ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
ART:254	Introduction to Ceramics	3
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART XXX Art Studio Elective		3
Writing II Requirement		3
Hours		15

### 2nd Year

#### Fall Semester

ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:222	Introduction to Sculpture	3
ART:489	Special Topics in Studio Art	3
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
ART XXX Art Studio Elective		3
Hours		15

#### Spring Semester

ART:103	History of Global Art 3: 1850 CE - Today	3
ART:353	Throwing	3
ART XXX Art Studio Elective		3
ART XXX Art Studio Elective		3
Social Science Requirement		3
Hours		15

### 3rd Year

#### Fall Semester

ART:453 or ART:454	Advanced Throwing or Advanced Ceramics	3
ART:457 or ART:430	Professional Practices or Professional Practices for Creative Careers	3
ART XXX Art Studio Elective		3
Natural Science Requirement		3
ART 3XX/4XX Contemporary Art History Elective		3
Hours		15

#### Spring Semester

ART:454	Advanced Ceramics	3
ART:456	Ceramic Portfolio Review	0
ART XXX Art Studio Elective		3
ART 3XX/4XX Art History Elective		3
Social Science Requirement		3
Humanities Requirement		3
Hours		15

### 4th Year

#### Fall Semester

ART:454	Advanced Ceramics	3
ART XXX Art Studio Elective		3

ART XXX Art Studio Elective	3
Social Science Requirement and Domestic Diversity	3
Social Science Requirement and Complex Issues	3
Hours	15
<b>Spring Semester</b>	
ART:454 Advanced Ceramics	3
ART:495 Senior Exhibition	0
ART XXX Art Studio Elective	3
Natural Science with Lab Requirement	3
Open Elective	3
Open Elective	3
Hours	15
Total Hours	120

## Ceramics, Minor

### Minor in Ceramics (C10009M)

#### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

The following information has official approval of the **Mary Schiller Myers School of Art** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Ceramics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

### Required Courses

Code	Title	Hours
ART:254	Introduction to Ceramics	3
ART:353	Throwing	3
<b>Select one or both, repeating for a total of twelve credits:</b>		<b>12</b>
ART:453	Advanced Throwing <sup>1</sup>	
ART:454	Advanced Ceramics <sup>2</sup>	
Total Hours		18

<sup>1</sup> May be repeated for a total of 6 credits.

<sup>2</sup> May be repeated for a total of 18 credits.

Note: Foundations curriculum need not be completed.

## Drawing, Minor

### Minor in Drawing (C10100M)

The Drawing Minor prepares students to engage in an individual search for expression through the development of strong visual skills, critical reasoning abilities, exploration of materials and processes, and understanding of historical and contemporary art. The minor provides students with the opportunity to integrate creative and artistic practice with their other academic and research pursuits. Flexible thinking and analytical skills are sought by a wide range of professions and industries.

Professors encourage both the freedom and discipline essential to drawing by embracing a wide range of aesthetic strategies and offering individual attention. Classes offer a place where ideas are openly examined, exchanged, challenged, and refined. The Minor requirements consist of 18 credits which include introductory and intermediate drawing courses combined with a slate of choices exploring drawing media, subject matter, and applications. A minimum grade-point average of 2.0 is required.

### Requirements for Admission

The student must complete at least 18 credits (Note: some minors may require additional credits).

At least six of the 18 credits must be at the 300/400 level.

A minimum grade-point average of 2.0 in each minor is required.

A minor may be designated at any time during the student's career up to and including the time the degree clearance is processed.

A minor will be placed on the student's record only at the time the student receives a baccalaureate degree and only if an application was processed.

Courses to be applied toward the granting of a minor may not be taken credit/non-credit. A maximum of 6 bypassed credits may be used, but all other credits must be earned.

The student must earn at least nine credits at The University of Akron in courses approved by the faculty granting the minor. Written permission of the dean and the head of the department which grants the minor is required for an exception.

If a student desires a minor from the same department/school as his/her major, there is a college requirement for a minimum of nine (9) non-overlapping credits between the minor and the major, as well as between the minor and other minor programs in the department/school.

A minor serving students who major in a different department/school requires a minimum number of non-overlapping credits as deemed necessary by the minor department/school. The minor department/school can also exclude overlapping courses with the major department/school to ensure the distinct competency of the minor.

Courses required for the minor may carry prerequisites, which must be honored before the student may enroll.

Authorization from the student, adviser and Myers School of Art is required to add the Minor in Drawing

#### Program Contact

Melissa Olson  
330-972-6030

*mso3@uakron.edu*

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The following courses constitute a "Minor in Drawing" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
ART:131	Foundation Drawing I	3
ART:351	Intermediate Drawing	3
ART:233	Introduction to Life Drawing	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select three of the following:</b>		<b>9</b>
ART:283	Drawing Techniques	
ART:335	Intermediate Life Drawing	
ART:450	Advanced Drawing/Life Drawing <sup>1</sup>	
Total Hours		9

<sup>1</sup> May be repeated for total of 6 credits

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

# Emerging Technologies, Minor

## Minor in Emerging Technologies (C10107M)

Emerging Technologies is a minor at the Myers School of Art and explores the use of the latest technologies in art and design.

## Purpose

The Emerging Technologies minor is open to all majors curious about transforming ideas with a palette of high tech possibilities. Students dive into lasercutting and 3D printing and more cutting edge technologies to create original material using the latest in advanced technology at the Myers School of Art Makerspace. Hands on exercises are geared towards the students interest and complement the class work in their respective majors.

## Goals

- Intensively explore Emerging Technologies in the context of a state-of-the-art Makerspace with in depth hands on project.
- Create engaged, socially-responsible, and thoughtful critical thinkers.
- Encourage diverse perspectives, viewpoints and ideas in support of a student's major studies.
- Accomplished faculty in the field encourage experiential learning and entrepreneurship.

### Program Contact

*Melissa Olson*  
330-972-6030  
*mso3@uakron.edu*

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The following courses constitute a "Minor in Emerging Technologies" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

## Required Courses

Code	Title	Hours
ART:111	Emerging Technologies	3
ART:470	Emerging Technologies Studio	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 12 credits of the following:</b>		<b>12</b>
ART:280	Digital Media	
ART:281	Web and Devices I	
ART:310	Motion Design	
ART:311	UI/UX Design	
ART:381	Digital Imaging II	
ART:471	Web and Devices II	
ART:385	3D Modeling, Printing and Prototyping	
ART:496	Art Internship/Professional Experience <sup>1</sup>	
Total Hours		12

<sup>1</sup> Internship can be repeated for up to 6 credits.

Note: Foundations curriculum need not be completed. Prerequisites must be honored.



# Graphic Design, BFA

## Bachelor of Fine Arts in Graphic Design (C10104BFA)

More on the Graphic Design major (<https://www.uakron.edu/art/academics/graphic-design.dot>)

Graphic Design is the largest program within the Myers School of Art. It is a professional program for students pursuing careers in the expanding multidisciplinary field of visual communication design. Critical thinking and logical problem solving in print, web and interactive media are emphasized.

### Purpose

The curriculum prioritizes creative thinking and problem solving through design theory but also emphasizes contemporary production processes using industry-standard technology. Our program requires students engage in the process of creating and encourages them to explore unexpected solutions. Students gain an understanding that design is an investment in research and ideation, innovative thinking, knowledge of tools and materials, and results-oriented solutions that create value for businesses. Considering this philosophy, our purpose is simple: to educate and prepare students for excellent and diverse careers around the country, appropriate to their talents, skills, and interests.

### Goals

- Unapologetically encourage diverse perspectives, viewpoints, ideas and thinking from all students, staff, faculty, guests and visitors.
- Create engaged, socially-responsible, and thoughtful critical thinkers.
- Maintain a diverse and accomplished faculty, knowledgeable and prepared to engage students on the ever-expanding field of graphic design.
- Promote ethical standards of business and communication, while cultivating an environment for a responsible and socially-aware graphic design industry.
- Research and develop modern techniques for graphic designers, including committing to emerging technologies and new industries.
- Archive and maintain the oral and written history of visual communication design.

### Distinctions

- A comprehensive graphic design program within an interdisciplinary school of art.
- Graduates of the program have instruction in all areas of the expanding graphic design industry, including traditional print, web, interactive, user experience, motion, animation, environmental, and experimental design.
- Design x Nine is a unique in-house student design studio opportunity creating real-world solutions for on and off-campus clients.
- 100% of our graduates develop business connections and entrepreneurial skills through professional internships; unique in-class client opportunities with companies like the Akron Zoo, MiLB's Akron Rubber Ducks, NASA, Bridgestone, or Microsoft; or various portfolio reviews and local affiliated events with industry professionals.
- Students have access to industry specific and emerging technology, including computer labs, camera/video equipment, various printing

solutions, 3D prototyping and printing, laser cutting, augmented and virtual reality systems, projection mapping, software solutions, and materials.

- Finding inspiration through travel, our students regularly visit design epicenters such as Miami, New York, and Chicago as well as unique travel experiences to other areas of the United States and Europe.

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Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Art History Requirements	12
	Foundation Core	12
	Graphic Design Requirements	54
	Photography Requirement	3
	Electives	5
	<b>Total Hours</b>	<b>120</b>

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
	<b>Academic Foundations</b>	<b>12</b>

<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
ART:101	Survey of Global Art 1: Prehistory to 1250 CE
ART:102	History of Global Art 2: 1250 CE - 1850 CE
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
ART:307	History of Graphic Design	3
Total Hours		12

## Foundation Core

Code	Title	Hours
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
Total Hours		12

## Graphic Design Requirements

Code	Title	Hours
ART:132	Introduction to Design	3
ART:184	Typography I	3
ART:189	Production I	3

ART:280	Digital Media	3
ART:281	Web and Devices I	3
ART:283	Drawing Techniques	3
ART:288	Typography II	3
ART:310	Motion Design	3
ART:311	UI/UX Design	3
ART:380	Illustration	3
ART:382	Graphic Design Junior Review	1
ART:384	Professional Design Practices	2
ART:387	Typography III	3
ART:471	Web and Devices II	3
ART:480	Advanced Graphic Design	3
or ART:481	Design X Nine	
or ART:485	Advanced Illustration	
ART:482	Corporate Identity & Graphic Systems	3
ART:483	Graphic Design Presentation	3
ART:487	Packaging Design	3
ART:488	Typography IV	3
ART:495	Senior Exhibition	0
Total Hours		54

## Photography Requirement

Code	Title	Hours
<b>Select three credits:</b>		<b>3</b>
ART:273	Introduction to Digital Photography	
ART:275	Introduction to Photography	
ART:276	Introduction to Commercial Photography	
ART:318	Portrait Lighting	
ART:320	Product Photography	
ART:375	Photography II	
ART:377	Medium and Large Format Photography	
ART:473	Photography III: Color	
ART:475	Advanced Photography	
Total Hours		3

## Electives

Code	Title	Hours
<b>Complete five credits:<sup>1</sup></b>		<b>5</b>
ART:213	Introduction to Printmaking	
ART:214	Relief/Screenprint	
ART:216	Intaglio/Lithography	
ART:222	Introduction to Sculpture	
ART:223	Sculpture: Stone	
ART:234	Anatomy for Artists	
ART:243	Introduction to Painting	
ART:324	Installation Art	
ART:351	Intermediate Drawing	
Total Hours		5

<sup>1</sup> A minimum of three credits must come from ART Studio Arts. The remaining two may be studio arts or open electives.

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
	Writing Requirement <sup>1</sup>	3
	Mathematics, Statistics and Logic Requirement	3
Hours		15
<b>Spring Semester</b>		
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:132	Introduction to Design	3
ART:189	Production I	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
	Writing Requirement	3
Hours		15
<b>2nd Year</b>		
<b>Fall Semester</b>		
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:184	Typography I	3
ART:281	Web and Devices I	3
ART:280	Digital Media	3
COMM:105	Introduction to Public Speaking	3
Hours		15
<b>Spring Semester</b>		
ART:283	Drawing Techniques	3
ART:288	Typography II	3
ART:307	History of Graphic Design	3
	Natural Science Requirement with Lab	4
	Art Studio Elective	3
Hours		16
<b>3rd Year</b>		
<b>Fall Semester</b>		
ART:103	History of Global Art 3: 1850 CE - Today	3
ART:310	Motion Design	3
ART:382	Graphic Design Junior Review	1
ART:384	Professional Design Practices	2
ART:387	Typography III	3
	Photography Requirement	3
Hours		15
<b>Spring Semester</b>		
ART:311	UI/UX Design	3
ART:380	Illustration	3
ART:488	Typography IV	3
	Social Science Requirement	3
	Humanities Requirement	3
Hours		15

### 4th Year

Fall Semester		
ART:482	Corporate Identity & Graphic Systems	3
ART:487	Packaging Design	3
	Art Studio or Open Elective	2
	General Education course	3
	General Education course	3
Hours		14
Spring Semester		
ART:471	Web and Devices II	3
ART:483	Graphic Design Presentation	3
ART:495	Senior Exhibition	0
	Global Diversity Requirement <sup>2</sup>	3
	Natural Science Requirement	3
	Social Science Requirement	3
Hours		15
Total Hours		120

<sup>1</sup> See adviser for placement

<sup>2</sup> ART:480 Advanced Graphic Design, ART:481 Design X Nine, or ART:485 Advanced Illustration

## History Emphasis, Minor Minor in Art – History Emphasis (C10002M)

### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

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The following courses constitute a “Minor in History Emphasis” and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student’s record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3

ART:103	History of Global Art 3: 1850 CE - Today	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 9 credits of the following:</b>		<b>9</b>
NMED:401	History of Performance and New Media	
ART:300	Art Since 1945	
ART:301	Medieval Art	
ART:302	Art in Europe During the 17th-18th Centuries	
ART:303	Italian Renaissance Art	
ART:306	Renaissance Art in Northern Europe	
ART:307	History of Graphic Design	
ART:309	Greek Art	
ART:313	Survey of Asian Art	
ART:370	History of Photography	
ART:401	Special Topics: History of Art	
ART:402	Museology	
ART:403	Art and Critical Theory	
ART:405	History of Art Symposium	
ART:407	Methods of Art History	
ART:435	Contemporary Art Issues	
ART:498	Senior Thesis in the History of Art	
Total Hours		9

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

## Illustration, Minor

### Minor in Illustration (C10108M)

#### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

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The following courses constitute a "Minor in Illustration" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
ART:283	Drawing Techniques	3
ART:335	Intermediate Life Drawing	3
ART:380	Illustration	3
ART:485	Advanced Illustration <sup>1</sup>	6
<b>Select one of the following:</b>		<b>3</b>
7100:185	Introduction to Computer Graphics	
ART:189	Production I	
Total Hours		18

<sup>1</sup> Complete twice for a total of six credits.

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

## Jewelry & Metalsmithing, BFA

### Bachelor of Fine Arts in Jewelry and Metalsmithing (C10102BFA)

More on the Jewelry and Metalsmithing major

The jewelry and metalsmithing program introduces students to a variety of techniques and processes specific to the field, which allow students to explore a wide range of ideas, objects, images, and modes of making. The curriculum combines art theory, craft history, contemporary issues and personal influences with a wide approach to making and materials. Students refine their skills as they study and create utilitarian and nonfunctional objects, jewelry and metal sculpture.

## Purpose

The purpose of the Jewelry & Metalsmithing program is to offer a comprehensive, forward-thinking undergraduate education preparing students for graduate-level study in the field; professional life as a visual artist; and skills in the production/manufacturing field of the jewelry industry. The program aims to provide students with experience in a wide variety of jewelry and metalsmithing processes as well as alternative approaches to materials, processes, and tools to find their own artistic direction through research, experimentation, and practice.

## Goals

- To offer students a foundation in traditional and contemporary jewelry making and metalsmithing practices, while also emphasizing conceptual thinking, innovation in design, and refined craftsmanship.
- To encourage students to explore individual directions in contemporary jewelry making, ornamentation, and object making through mixed media exploration, production techniques, and fine jewelry skills.
- To encourage students to understand the implications of the objects and jewelry they make through the larger contexts of art theory, craft history, and contemporary issues in the studio art jewelry field.
- To give students experience in working with a variety of traditional techniques and processes including silversmithing, hollow form construction, casting, enameling, electroforming, stone setting, and die forming.
- To give students experience at working with a variety of alternative techniques and processes including 3D modeling and printing, laser

cutting, powder coating, electroplating, vacuum forming, resin work, and experimentation with other materials that allow students to consider the meaning of materials in our contemporary culture.

- To help students develop creative problem-solving skills, self-motivated studio practice, and a strong work ethic.
- To familiarize students with the major issues and aesthetic approaches of contemporary art and craft disciplines.
- To foster the individual's skills in thinking critically and analytically as a means of evaluating and understanding art made by themselves and other artists.
- To educate students on working safely in all areas of a jewelry and metalsmithing studio.
- To provide students with unique opportunities beyond the scope of traditional classroom learning to both expand upon the education that we offer as well as encourage an appreciation and love of lifelong learning.

## Distinctions

Students are presented with a broad range of facilities and opportunities while pursuing their BFA in Jewelry & Metalsmithing such as:

- The Myers School of Art jewelry & Metalsmithing studio is a shared, collaborative environment to which students have 24-hour access. In addition to communal space, studio space is offered to intermediate and advanced level students on a competitive basis.
- Exhibit in shows both within the university and beyond in local, regional, and national venues.
- Participate in the Annual Myers Holiday Shop, Annual Boston Mills ArtFest Akron, Art Museum Holiday Sale, and other local venues.
- Travel to the Biennial Society of North American Goldsmith Conferences.
- Participate in the Akron Jewelry & Metals Club Activities
- Engage with the Akron and Northeast Ohio communities at museums, schools, and community jewelry and metalsmithing events.
- Gain hands-on experience working with visiting artists and local and regional artists in our exciting internship program.
- Past students have interned with Zenia Lis, Stephen Yusko, Tap Studios, Seth Gould, and Cambridge Jewelers.

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Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses.

Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Art History Requirements	9
	Foundation Core	12
	Art History Electives	6
	Jewelry and Metalsmithing Requirements	42
	Studio Electives	9
	Additional Major Electives *	13
	<b>Total Hours</b>	<b>125</b>

\* This major requires a minimum of 125 completed credit hours.

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	
ART:102	History of Global Art 2: 1250 CE - 1850 CE	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
Total Hours		9

## Foundation Core

Code	Title	Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
Total Hours		12

## Art History Electives

Code	Title	Hours
<b>Complete six credits:</b>		<b>6</b>
ART:300	Art Since 1945	
ART:301	Medieval Art	
ART:302	Art in Europe During the 17th-18th Centuries	
ART:303	Italian Renaissance Art	
ART:306	Renaissance Art in Northern Europe	
ART:307	History of Graphic Design	
ART:309	Greek Art	
ART:312	Roman Art & Architecture	
ART:313	Survey of Asian Art	
ART:356	History of Craft	
Total Hours		6

## Jewelry and Metalsmithing Requirements

Code	Title	Hours
ART:189	Production I	3
ART:222	Introduction to Sculpture	3
ART:266	Introduction to Metalsmithing	3
ART:365	Intermediate Jewelry	3
ART:366	Metalsmithing II	3
ART:368	Color in Metals	3
ART:369	Production for Jewelry	3
ART:385	3D Modeling, Printing and Prototyping	3

ART:457	Professional Practices	3
ART:466	Advanced Metalsmithing <sup>1</sup>	12
ART:467	Metalsmithing Portfolio Review	0
ART:489	Special Topics in Studio Art <sup>2</sup>	3
Total Hours		42

<sup>1</sup> Repeat ART 466 a minimum of four times.

<sup>2</sup> Special topic should be in the Jewelry & Metalsmithing area.

## Studio Electives

Code	Title	Hours
<b>Complete nine credits:</b>		<b>9</b>
ART xxx		
Total Hours		9

## Metalsmithing, Minor

### Minor in Metalsmithing (C10102M)

#### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

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The following courses constitute a "Minor in Metalsmithing" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
ART:266	Introduction to Metalsmithing	3
ART:366	Metalsmithing II	3
ART:368	Color in Metals	3
ART:465	Color in Metals II	3
ART:466	Advanced Metalsmithing <sup>1</sup>	6
Total Hours		18

<sup>1</sup> Take two times for a total of six credits

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

# Painting & Drawing, BFA

## Bachelor of Fine Art in Painting and Drawing (C10004BFA)

More on the Painting and Drawing major (<https://www.uakron.edu/art/academics/painting-drawing.dot>)

The Painting and Drawing program emphasizes that we are a community of people and ideas. Faculty and students are united in fostering curiosity and shared work ethic. Students explore studio work that demonstrates individual expression, critical thinking, and an awareness of art's historical and contemporary issues.

### Purpose

The painting department supports an inspired learning environment that encourages both experimentation and problem-solving. Working in individual studios, painting majors develop analytical thinking and a supportive community through critiques and discussions. An active visiting artist program and travel opportunities give students direct access to professionals in their field and new perspectives. Faculty and students share a respect for the tradition of painting while addressing how painting engages contemporary culture, technology and ideas.

### Goals

Students demonstrate strong technical, design, and conceptual thinking skills. Exposure to a wide range of creative processes and materials prepare students for personally driven projects in advanced work. Learning both traditional and modern approaches, majors enjoy the flexibility to investigate a wide range of approaches and related disciplines. Professional practices courses and visiting artists provide students with innovative learning and career development opportunities.

### Distinctions

Students are presented with a broad range of facilities and opportunities while pursuing their BFA in Painting/Drawing such as:

- 24-hour studio access
- Individual studio spaces at the advanced level
- Professional career development
- Exhibition opportunities
- Nationally recognized visiting artist program
- Preparation for graduate study
- Student-run painting club
- Access to world-class museums in the region
- National and international travel opportunities

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Art History Requirements	12
	Foundation Core	15
	Art History Electives	3
	Painting and Drawing Requirements	39
	Studio Electives	9
	Additional Credits for Graduation *	8
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

### Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	
ART:102	History of Global Art 2: 1250 CE - 1850 CE	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## College of Arts & Sciences Requirement

**Code Title Hours**

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
ART:300	Art Since 1945	3
or ART:403	Art and Critical Theory	
or ART:435	Contemporary Art Issues	
Total Hours		12

## Foundation Core

Code	Title	Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:233	Introduction to Life Drawing	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
Total Hours		15

## Art History Electives

Code	Title	Hours
<b>Complete three credits:</b>		
ART:301	Medieval Art	3
ART:302	Art in Europe During the 17th-18th Centuries	
ART:303	Italian Renaissance Art	
ART:306	Renaissance Art in Northern Europe	
ART:307	History of Graphic Design	
ART:309	Greek Art	
ART:312	Roman Art & Architecture	
ART:356	History of Craft	
ART:370	History of Photography	
ART:401	Special Topics: History of Art	
ART:402	Museology	

ART:405	History of Art Symposium	
ART:407	Methods of Art History	
Total Hours		3

## Painting and Drawing Requirements

Code	Title	Hours
ART:189	Production I	3
ART:213	Introduction to Printmaking	3
ART:351	Intermediate Drawing	3
ART:243	Introduction to Painting	3
ART:335	Intermediate Life Drawing	3
ART:348	Intermediate Painting <sup>1</sup>	6
ART:350	Painting/Drawing Portfolio Review	0
ART:450	Advanced Drawing/Life Drawing <sup>1</sup>	6
ART:455	Advanced Painting <sup>2</sup>	9
ART:457	Professional Practices	3
ART:495	Senior Exhibition	0
Total Hours		39

<sup>1</sup> Repeat a minimum of two times.

<sup>2</sup> Repeat a minimum of three times.

## Studio Electives

Code	Title	Hours
<b>Complete nine credits:</b>		
ART xxx		9
Total Hours		9

## Painting, Minor

### Minor in Painting (C10101M)

The Painting Minor prepares students to engage in an individual search for expression through the development of strong visual skills, critical reasoning abilities, exploration of materials and processes, and understanding of historical and contemporary art. The minor provides students with the opportunity to integrate creative and artistic practice with their other academic and research pursuits. Flexible thinking and analytical skills are sought by a wide range of professions and industries.

Professors encourage both the freedom and discipline essential to painting by embracing a wide range of aesthetic strategies and offering individual attention. Classes offer a place where ideas are openly examined, exchanged, challenged, and refined. The Minor requirements consist of 18 credits including introductory, intermediate, and advanced painting courses offering a range explorations in painting and drawing media. A minimum grade-point average of 2.0 is required.

## Requirements for Admission

The student must complete at least 18 credits (Note: some minors may require additional credits).

At least six of the 18 credits must be at the 300/400 level.

A minimum grade-point average of 2.0 in each minor is required.



A minor may be designated at any time during the student's career up to and including the time the degree clearance is processed.

A minor will be placed on the student's record only at the time the student receives a baccalaureate degree and only if an application was processed.

Courses to be applied toward the granting of a minor may not be taken credit/non-credit. A maximum of 6 bypassed credits may be used, but all other credits must be earned.

The student must earn at least nine credits at The University of Akron in courses approved by the faculty granting the minor. Written permission of the dean and the head of the department which grants the minor is required for an exception.

If a student desires a minor from the same department/school as his/her major, there is a college requirement for a minimum of nine (9) non-overlapping credits between the minor and the major, as well as between the minor and other minor programs in the department/school.

A minor serving students who major in a different department/school requires a minimum number of non-overlapping credits as deemed necessary by the minor department/school. The minor department/school can also exclude overlapping courses with the major department/school to ensure the distinct competency of the minor.

Courses required for the minor may carry prerequisites, which must be honored before the student may enroll. ART 131 Foundation Drawing is a prerequisite and is not applicable toward the total credit hour requirements.

Authorization from the student, adviser and Myers School of Art is required to add the Minor in Painting.

#### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

The following information has official approval of the **Mary Schiller Myers School of Art** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Painting" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
	Required Courses	12
	Electives	9
	Total Hours	21

## Required Courses

Code	Title	Hours
ART:243	Introduction to Painting	3
ART:246	Introduction to Water-based Media	3
ART:351	Intermediate Drawing	3
ART:455	Advanced Painting	3
	Total Hours	12

## Electives

Code	Title	Hours
ART:348	Intermediate Painting <sup>1</sup>	3
ART:346	Intermediate Water-Based Media <sup>2</sup>	3
	Total Hours	6

<sup>1</sup> May be repeated for a total of 6 credits. Prerequisite: ART 243. Development of personal concepts and imagery through investigation of historical and contemporary styles and issues.

<sup>2</sup> May be repeated for total of 6 credits. Prerequisite: ART 246. Development of personal concepts and imagery through investigation of historical and contemporary styles, techniques, and issues.

## Photography For Non-Art Majors, Minor

### Minor in Photography for Non-Art Majors (C10110M)

#### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

The following information has official approval of the **Mary Schiller Myers School of Art** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Photography for Non-Art Majors" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
	Required Courses	9
	Electives	9
	Total Hours	18

## Required Courses

Code	Title	Hours
ART:274	Photography I for Non-Art Majors	3
ART:374	Photography II for Non-Art Majors	3

ART:474	Advanced Photography for Non-Art Majors	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 9 credits of the following elective courses:</b>		<b>9</b>
ART:276	Introduction to Commercial Photography	
ART:370	History of Photography	
ART:473	Photography III: Color	
ART:474	Advanced Photography for Non-Art Majors <sup>1</sup>	
Total Hours		9

<sup>1</sup> May be repeated

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

# Photography, BFA

## Bachelor of Fine Arts in Photography (C10103BFA)

More on the Photography major (<https://www.uakron.edu/art/academics/photography.dot>)

The Photography program provides in-depth experience in black and white and color fine art photography utilizing film and digital technologies as well as commercial photography and alternative approaches to the medium. Technical mastery and advanced conceptual thinking are emphasized, along with a solid grounding in historical and contemporary issues.

## Purpose

The photography area has a primary aim to provide a high quality professional undergraduate education in fine art photography. The program's curriculum centers on mastery in film and digital technologies as well as strong conceptual development towards a final portfolio and exhibition. The photography area also serves many art and non-art students who take photography classes as electives.

## Goals

- Education of the student in the field of fine art photography.
- Understanding of historical and conceptual developments in the field.
- Understanding of the tools, materials, and processes used in the field today.
- Development of the students' career as a professional artist working in the gallery/museum world.
- Personal development for the student, to increase self-awareness and to provide a means for self-expression.

## Distinctions

Students are presented with a broad range of facilities and opportunities while pursuing their BFA in Photography such as:

- Competitive scholarships available for partial tuition, fees, tools, research, materials, and travel
- Travel to the Society for Photographic Education's Regional and National Conferences

- Afterhours access to darkrooms, lighting, and digital labs.
- Exhibit on campus, locally, and regionally.
- Gain hands-on experience with visiting artists in residence programs.
- Participate in activities led by the campus student organization, Folk Photography Association.

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Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Art History Requirements		15
Foundation Core		12
Photography Requirements		33
Printmaking Requirements		0-3
Studio Electives		18
Additional Credits for Graduation *		8-5
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

<b>Academic Foundations</b>	<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
ART:101	Survey of Global Art 1: Prehistory to 1250 CE
ART:102	History of Global Art 2: 1250 CE - 1850 CE
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
ART:370	History of Photography	3
ART XXX	Advanced Art History Elective	3
Total Hours		15

## Foundation Core

Code	Title	Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:250	Foundation Lecture	1

ART:252	Foundation Studio	2
Total Hours		12

## Photography Requirements

Code	Title	Hours
ART:275	Introduction to Photography	3
ART:276	Introduction to Commercial Photography	3
ART:318	Portrait Lighting	3
ART:320	Product Photography	3
ART:375	Photography II	3
ART:377	Medium and Large Format Photography	3
ART:473	Photography III: Color	3
ART:475	Advanced Photography <sup>1</sup>	9
ART:476	Photography Portfolio Review	0
ART:479	Professional Photographic Practices	3
ART:495	Senior Exhibition	0
Total Hours		33

<sup>1</sup> Repeat a minimum of three times

## Printmaking Requirements

Code	Title	Hours
<b>Complete one course:</b>		<b>0-3</b>
ART:213	Introduction to Printmaking	
ART:214	Relief/Screenprint	
ART:216	Intaglio/Lithography	
ART:317	Print Matrix	
ART:319	Printmaking Review	
ART:418	Multiples and Multiplicity	
Total Hours		0-3

## Studio Electives

Code	Title	Hours
<b>Complete 18 credits:</b>		<b>18</b>
ART xxx		
Total Hours		18

## Photography, Minor

### Minor in Photography (C10103M)

#### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

The following information has official approval of the **Mary Schiller Myers School of Art** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Photography" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University

Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

## Required Courses

Code	Title	Hours
ART:275	Introduction to Photography	3
ART:375	Photography II	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 12 credits from the following:</b>		<b>12</b>
ART:276	Introduction to Commercial Photography	
ART:370	History of Photography	
ART:473	Photography III: Color	
ART:475	Advanced Photography <sup>1</sup>	
ART:479	Professional Photographic Practices	
Total Hours		12

<sup>1</sup> May be repeated

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

## Printmaking, BFA

### Bachelor of Fine Arts in Printmaking (C10003BFA)

More on the Printmaking major (<https://www.uakron.edu/art/academics/printmaking.dot>)

The Printmaking program is centered upon a dynamic investigation into the meaning of printed matter and the production of multiples in our complex world. Students energetically examine the visual and expressive potential of fine art printmaking while developing theoretical grounding in the historic context and contemporary applications of printmaking.

The curriculum is structured to provide a firm technical and conceptual foundation in print media as students develop problem-solving and analytical skills. Through independent and communal efforts students refine their art-making abilities, discover their individual voices and aesthetic sensibilities, and learn the habits essential to the lives of active artists and engaged global citizens.

## Purpose

The purpose of the Printmaking program is to offer a comprehensive, forward-thinking undergraduate education in printmaking preparing students for professional work as visual artists and practitioners in the fields of printing/printmaking and for graduate-level study in printmaking and the visual arts. The program aims to offer students an education in

a wide range of printmaking techniques—from historic to progressive—while continuing to provide high-quality printmaking courses to support and broaden the educations of students in other areas of study within The Myers School of Art.

## Goals

- To help students gain technical strength in the four primary printmaking media—relief, intaglio, lithography, and screenprinting—and progressive contemporary printmaking practice—digital printing, printstallation, relational aesthetics, etc.
- To foster student learning of the problem-solving skills, methods of critical thinking, and idea development of the printmaking discipline and greater art-making practice.
- To aid students in seeing the potential for the transference of basic printmaking skills, concepts, and thought processes into other fields of study and areas of personal investigation.
- To lead students in learning to work collaboratively in a communal space with a sense of social responsibility.
- To teach contextual knowledge of contemporary and historic printmaking.
- To foster the ability to critically analyze artworks created through printmaking processes.
- To provide students with unique opportunities beyond the scope of traditional classroom learning to both expand upon the education that we offer as well as encourage an appreciation and love of lifelong learning.

## Distinctions

Students are presented with a broad range of facilities and opportunities while pursuing their BFA in Printmaking such as:

- The Myers School of Art Printshop is a shared, collaborative environment to which students have 24-hour access. In addition to communal space, studio space is offered to intermediate and advanced level students on a competitive basis.
- Gain hands-on experience working with our extensive visiting artist program.
- Exhibit in shows both within the university and beyond in regional venues.
- Travel to the annual Southern Graphics Council International and biennial Mid America Print Council conferences.
- Participate in APE (Akron Printmaking Enthusiasts), our printmaking club, activities.
- Engage with the Akron and Northeast Ohio communities at museums, schools, and community printmaking demonstrations and events.

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Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the

program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Art History Requirements	12
	Foundation Core	12
	Art History Elective	3
	Printmaking Requirements	36
	3D Elective	3
	Studio Electives	15
	Additional Credits for Graduation *	5
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
<b>Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.</b>		
<b>Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.</b>		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	ART:101 Survey of Global Art 1: Prehistory to 1250 CE	
	ART:102 History of Global Art 2: 1250 CE - 1850 CE	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		

Select one class from one of the following subcategories:

Complex Issues Facing Society	
Capstone	
Review the General Education Requirements page for detailed course listings.	
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
ART:300	Art Since 1945	3
or ART:435	Contemporary Art Issues	
<b>Total Hours</b>		<b>12</b>

## Foundation Core

Code	Title	Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
<b>Total Hours</b>		<b>12</b>

## Art History Elective

Code	Title	Hours
<b>Complete three credits:</b>		
ART:301	Medieval Art	
ART:302	Art in Europe During the 17th-18th Centuries	
ART:303	Italian Renaissance Art	
ART:306	Renaissance Art in Northern Europe	
ART:307	History of Graphic Design	
ART:309	Greek Art	
ART:312	Roman Art & Architecture	
ART:313	Survey of Asian Art	
ART:356	History of Craft	
ART:370	History of Photography	
ART:402	Museology	

ART:403	Art and Critical Theory	
Total Hours		3

## Printmaking Requirements

Code	Title	Hours
ART:189	Production I	3
ART:213	Introduction to Printmaking	3
ART:214	Relief/Screenprint	3
ART:216	Intaglio/Lithography	3
ART:243	Introduction to Painting	3
ART:273	Introduction to Digital Photography	3
ART:317	Print Matrix <sup>1,2</sup>	6
ART:319	Printmaking Review	0
ART:351	Intermediate Drawing	3
or ART:233	Introduction to Life Drawing	
ART:418	Multiples and Multiplicity <sup>1</sup>	6
ART:457	Professional Practices	3
ART:495	Senior Exhibition	0
Total Hours		36

<sup>1</sup> Repeat a minimum of two times.

<sup>2</sup> ART:419 Special Topics in Print may be substituted for ART:317 Print Matrix for a total of three credits.

## 3D Elective

Code	Title	Hours
<b>Select one of the following:</b>		<b>3</b>
ART:222	Introduction to Sculpture	
ART:254	Introduction to Ceramics	
ART:266	Introduction to Metalsmithing	
ART:324	Installation Art	
Total Hours		3

## Studio Electives

Code	Title	Hours
<b>Complete 15 credits:</b>		<b>15</b>
ART xxx		
Total Hours		15

## Printmaking, Minor Minor in Printmaking (C10003M)

### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

The following information has official approval of the **Mary Schiller Myers School of Art** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Printmaking" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Electives		6
Total Hours		24

## Required Courses

Code	Title	Hours
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:213	Introduction to Printmaking	3
ART:214	Relief/Screenprint	3
ART:216	Intaglio/Lithography	3
ART:317	Print Matrix <sup>1</sup>	3
Total Hours		18

## Electives

Code	Title	Hours
<b>Select 2 of the following:</b>		<b>6</b>
ART:317	Print Matrix <sup>1</sup>	
ART:418	Multiples and Multiplicity <sup>1</sup>	
ART:419	Special Topics in Print <sup>1</sup>	
Total Hours		6

<sup>1</sup> ART:317 Print Matrix, ART:418 Multiples and Multiplicity and ART:419 Special Topics in Print may be repeated.

Note: Foundations curriculum need not be repeated. Prerequisites must be honored.

## Professional Photography, Minor Minor in Professional Photography (C10109M)

### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

The following information has official approval of the **Mary Schiller Myers School of Art** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Professional Photography" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer

to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		3
Electives		15
Total Hours		18

## Required Courses

Code	Title	Hours
ART:189	Production I	3
Total Hours		3

## Electives

Code	Title	Hours
<b>Complete 15 credits from the following:</b>		<b>15</b>
ART:275	Introduction to Photography	
ART:276	Introduction to Commercial Photography	
ART:280	Digital Media	
ART:318	Portrait Lighting	
ART:320	Product Photography	
ART:479	Professional Photographic Practices	

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

## Sculpture, BFA

### Bachelor of Fine Arts in Sculpture (C10005BFA)

More on the Sculpture major (<https://www.uakron.edu/art/academics/sculpture.dot>)

The Sculpture program provides a solid grounding in a wide variety of conceptual, technical and formal approaches for the creation of sculpture to enable students to explore and communicate their individual artistic concerns. The curriculum is designed to introduce students to the almost limitless possibilities of contemporary sculpture.

## Purpose

The purpose of the Sculpture program is to provide an undergraduate education in sculpture that prepares students for graduate-level study in sculpture and for professional life as a visual artist. The program aims to provide students with experience in a wide variety of sculptural processes and media and the tools to find their own artistic direction through research, experimentation and practice.

## Goals

- To encourage students to explore individual directions in contemporary sculpture through object making, mixed media installations, interdisciplinary projects and public art exhibitions.
- To give students experience at working with a variety of media and processes including steel, wood, plaster, found objects, mixed media and lost wax casting.

- To help students develop creative problem-solving skills, a self motivated studio practice and strong work ethic.
- To familiarize students with the major issues and aesthetic approaches of contemporary sculpture.
- To encourage students to apply skills learned in sculpture to their other areas of study.
- To foster the individual's skills in thinking critically and analytically as a means to evaluating and understanding art made by themselves and other artists.
- To educate students in working safely in three dimensions.

## Distinctions

Students are presented with a broad range of facilities and opportunities while pursuing their BFA in Sculpture such as:

- The sculpture facility comprises a well-equipped and organized wood-working shop, metal shop, foundry and plaster area, available outside of class times through supervised lab hours.
- The woodshop has a state of the art "Saw-stop" table saw, compound miter saw, band-saws, sanding machines, drill press and most common woodworking tools and equipment.
- A metal shop, with oxy-acetylene and MIG welding capabilities, hydraulic shear, sheet metal rollers, metal band-saw, bench grinder and more.
- Gain valuable professional work experience as the Sculpture area's Student Assistant.
- Work with internationally-renowned visiting artists.
- Exhibit work on campus and in regional venues – sculpture students have exhibited their work at The Box Gallery, Summit ArtSpace, The Icehouse and Spaces, Cleveland.

The following information has official approval of **The Mary Schiller Myers School of Art** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Students are encouraged to visit the The Mary Schiller Myers School of Art their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Foundation Core	12
	Art History Requirements	15
	Sculpture Requirements	39
	Studio Electives	12
	Electives	8
	<b>Total Hours</b>	<b>120</b>

Note: A 2.5 cumulative GPA in all ART courses is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	
ART:102	History of Global Art 2: 1250 CE - 1850 CE	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
	<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>	
	Upper-level (300/400) courses both in and outside of the student's major;	

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Foundation Core

Code	Title	Hours
ART:100	Arts Orientation	0
ART:131	Foundation Drawing I	3
ART:144	Foundation 2D Design	3
ART:145	Foundation 3D Design	3
ART:250	Foundation Lecture	1
ART:252	Foundation Studio	2
	<b>Total Hours</b>	<b>12</b>

## Art History Requirements

Code	Title	Hours
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
ART:102	History of Global Art 2: 1250 CE - 1850 CE	3
ART:103	History of Global Art 3: 1850 CE - Today	3
ART:300	Art Since 1945	3
or ART:403	Art and Critical Theory	
or ART:435	Contemporary Art Issues	
ART xxx	Advanced Level Art History	3
	<b>Total Hours</b>	<b>15</b>

## Sculpture Requirements

Code	Title	Hours
ART:189	Production I	3
ART:222	Introduction to Sculpture	3
ART:324	Installation Art	3
ART:233	Introduction to Life Drawing	3
ART:254	Introduction to Ceramics	3
ART:266	Introduction to Metalsmithing	3
ART:322	Sculpture II	3
ART:351	Intermediate Drawing	3
ART:420	Sculpture Portfolio Review	0
ART:422	Advanced Sculpture <sup>1</sup>	12
ART:457	Professional Practices	3
ART:495	Senior Exhibition	0
	<b>Total Hours</b>	<b>39</b>

<sup>1</sup> Repeat a minimum of four times.

## Studio Electives

Code	Title	Hours
	<b>Select 12 credits:</b>	<b>12</b>
ART xxx		
	<b>Total Hours</b>	<b>12</b>



## Electives

Code	Title	Hours
<b>Select 8 credits</b>		<b>8</b>
Total Hours		8

## Sculpture, Minor

### Minor in Sculpture (C10005M)

#### Program Contact

Melissa Olson  
330-972-6030  
mso3@uakron.edu

The following information has official approval of the **Mary Schiller Myers School of Art** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Sculpture" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		3
Electives		18
Total Hours		21

## Required Courses

Code	Title	Hours
ART:222	Introduction to Sculpture	3
Total Hours		3

## Electives

Code	Title	Hours
<b>Complete 18 credits:</b>		<b>18</b>
ART:223	Sculpture: Stone	
ART:254	Introduction to Ceramics	
ART:266	Introduction to Metalsmithing	
ART:322	Sculpture II	
ART:323	Lost Wax Casting	
ART:324	Installation Art	
ART:422	Advanced Sculpture	
Total Hours		18

Note: Foundations curriculum need not be completed. Prerequisites must be honored.

## Biology

Biology is the fastest-growing field of science today and its impact is carried to many fronts: medicine and health care; the environment

and climate change; and global food sources. A degree in Biology can prepare a student for professional schools, such as medical, dental, veterinary and pharmacy. Alternatively, in collaboration with the College of Education, the degree can prepare a student to teach high school biology. Graduates with Biology degrees from UA become physicians, dentists, pharmacists, veterinarians, and university professors, as well as conducting a variety of biological research in firms such as Enviroscience, Battelle Memorial Institute, Ohio EPA, Ohio Nature Conservancy, and Ohio DNR. UA students gain experience in these areas through research opportunities in academic laboratories, internships with local businesses, and with co-ops.

- Biology, BS (p. 85)
- Biology, Minor (p. 86)
- Biomedical Science, BS (p. 87)

## Biology (BIOL)

### BIOL:100 Introduction to Botany (4 Credits)

Identification and biology of common plants of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory. (Formerly 3100:100)

### BIOL:101 Introduction to Zoology (4 Credits)

Identification and biology of common animals of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory. (Formerly 3100:101)

### BIOL:103 Natural Science: Biology (4 Credits)

Designed for non-science majors. Laboratory and class instruction illustrate concepts of living organisms with emphasis on mankind's position in, and influence on, the environment. (Formerly 3100:103)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### BIOL:106 Exploring Biology (3 Credits)

Exploration of how science works and the cellular organization, genetic inheritance and diversity of living things. Not available for credit toward a degree in biology. (Formerly 3100:106)

**Gen Ed:** - Natural Science

### BIOL:108 Introduction to Biological Aging (3 Credits)

Prerequisite: BIOL 103. Survey of normal anatomical and physical changes in aging and associate diseases. (For students in gerontological programs at Wayne College. Not for B.S. biology credit.) (Formerly 3100:108)

**Gen Ed:** - Natural Science

### BIOL:111 Principles of Biology I (4 Credits)

Prerequisite or Corequisite: CHEM 151 Molecular, cellular basis of life; energy transformations, metabolism; cell reproduction, genetics, development, immunology, evolution, and origin and diversity of life (through plants). Laboratory. (Formerly 3100:111)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### BIOL:112 Principles of Biology II (4 Credits)

Prerequisite: BIOL 111 with a grade of C- or better. Animal diversity; nutrients, gas exchange, transport, homeostasis, control in plants and animals; behavior; ecology. (BIOL 111 and BIOL 112 are an integrated course for biology majors.) Laboratory. (Formerly 3100:112)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**BIOL:113 Professional Development for Biology Majors (1 Credit)**

Prerequisite/Corequisite: BIOL 111. This course is for Biology majors in their first year of study to provide useful tools as they pursue a Biology career. Recommended, not required. (Formerly 3100:113)

**BIOL:130 Principles of Microbiology (3 Credits)**

Basic principles and terminology of microbiology; cultivation and control of microorganisms; relationships of microorganisms; medical microbiology. Laboratory. Not available for credit toward a degree in biology. (Formerly 3100:130)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**BIOL:131 The Biology of Monsters (1 Credit)**

Many movie monsters use exaggerations or extrapolations of real biological concepts. This course uses monsters to teach key biological concepts in a fun and accessible way. A short lecture is followed by a screening of the movie. (Formerly 3100:131)

**BIOL:180 BS/MD Orientation (1 Credit)**

Orientation to the BS/MD Program. Restricted to students in the BS/MD Program. Graded credit/no credit. Not available for credit toward a biology degree. (Formerly 3100:180)

**BIOL:190 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. Restricted to the student in NEOUCOM, six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:190)

**BIOL:191 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. Restricted to the student in NEOUCOM, six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:191)

**BIOL:200 Human Anatomy & Physiology I (3 Credits)**

Study of structure and function of the human body. Molecular, cellular function, histology, integumentary system, skeletal system, muscular system, nervous system, and the sense organs. Not available for credit toward a degree in biology. (Formerly 3100:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**BIOL:201 Human Anatomy & Physiology Laboratory I (1 Credit)**

Laboratory devised to allow hands on experience using models, dissections of various animals, virtual dissection, and physiological exercises. Not available for credit toward a degree in biology. (Formerly 3100:201)

**BIOL:202 Human Anatomy & Physiology II (3 Credits)**

Prerequisite: BIOL 200. Study of structure and function of the human body. Endocrine system, cardiovascular system, lymphatics, respiratory system, urinary system, digestive system, and reproductive systems. Not available for credit toward a degree in biology. (Formerly 3100:202)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**BIOL:203 Human Anatomy & Physiology Laboratory II (1 Credit)**

Laboratory devised to allow hands on experience using models, dissections of various animals, virtual dissection, and physiological exercises. Not available for credit toward a degree in biology. (Formerly 3100:203)

**BIOL:211 General Genetics (3 Credits)**

Prerequisite: Completion of BIOL 112 with a grade of "C-" or better. Principles of heredity, principles of genetics. (Formerly 3100:211)

**BIOL:212 Genetics Laboratory (1 Credit)**

Prerequisite: BIOL 112 with a grade C- or better, and prerequisite or corequisite: BIOL 211. Laboratory experiments in genetics with emphasis on scientific method; techniques in molecular biology. (Formerly 3100:212)

**BIOL:217 General Ecology (3 Credits)**

Prerequisite: Completion of BIOL 112 with a grade of "C-" or better. Study of interrelationships between organisms and environment. (Formerly 3100:217)

**BIOL:225 Biology of AIDS (1 Credit)**

Prerequisite: Permission. Course examines the Human Immunodeficiency Virus and the disease of AIDS. Virus structure, replication, therapy, transmission, epidemiology, disease process and social consequences are studied. Not available for credit toward a degree in biology. (Formerly 3100:225)

**BIOL:238 Biomimicry Foundations (3 Credits)**

An introduction to biomimicry through the analysis of case studies, including those from Northeast Ohio, and a consideration of the major tools and methods. (Formerly 3100:238)

**BIOL:265 Introductory Human Physiology (4 Credits)**

Study of physiological processes in human body, particularly at organ-systems level. Not open to preprofessional majors. Laboratory. Not available for credit toward a degree in biology. (Formerly 3100:265)

**Gen Ed:** - Natural Science w/LAB

**BIOL:290 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. A continuation of 190/191 for a second year student in NEOUCOM six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:290)

**BIOL:291 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. A continuation of 190/191 for a second year student in NEOUCOM six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:291)

**BIOL:295 Special Topics in Biology (1-3 Credits)**

Prerequisite: Permission. Special courses offered occasionally in areas where no formal course exists. Not available for credit toward a degree in biology. (Formerly 3100:295)

**BIOL:311 Cell & Molecular Biology (4 Credits)**

Prerequisites: CHEM 151, CHEM 152, CHEM 153, CHEM 154, and BIOL 211. Study of structure and function of cells, with emphasis on both classical and modern approaches to understanding organelles, energy balance, protein synthesis, and replication. (Formerly 3100:311)

**BIOL:312 Neuroscience in Health and Disease (3 Credits)**

Prerequisite: BIOL 112 with a C or better or BIOL 202 with a C or better or PSYC 320 with a C or better. Discover how neurons communicate and explore how the brain functions under conditions of normal health, as well as conditions of disease. (Formerly 3100:312)

**BIOL:315 Evolutionary Biology Discussion (1 Credit)**

Prerequisite: BIOL 211 with a grade of C- or better. Informal discussions of various aspects of organic evolution of general or special interest. (Formerly 3100:315)

**BIOL:316 Evolutionary Biology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Description of core evolutionary concepts and the history of evolutionary thought including natural selection, sexual selection, genetic drift, higher level selection and speciation. (Formerly 3100:316)

**BIOL:318 Biomimicry Design Challenge (3 Credits)**

A studio design course using nature as a model for creating innovative solutions targeting a specific design problem. It combines a brief introduction into biomimetics and is open to students from different disciplines in the arts, sciences, and engineering. (Formerly 3100:318)

**BIOL:331 Microbiology (4 Credits)**

Prerequisites: BIOL 112, BIOL 211, and CHEM 263 (or corequisite). Survey of monera with emphasis on the bacteria: their morphology, cultivation and chemical characteristics. Relationships of microorganisms to humans and their environment. Laboratory. (Formerly 3100:331)

**BIOL:342 Flora & Taxonomy (3 Credits)**

Prerequisite: BIOL 112 with a C- or better. Origins of Ohio flora, ecological and evolutionary relationships. Survey of local flowering plant families, collection and identification of flora. Laboratory and field trips. (Formerly 3100:342)

**BIOL:343 Diversity of Plants (3 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217. A broad survey of the traditional plant "branches" of the tree of life. Diversity, structure, and function of fungi, algae, and land plants. (Formerly 3100:343)

**BIOL:344 Diversity of Plant Laboratory (2 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217. Corequisite: BIOL 343. A broad laboratory survey of the traditional plant "branches" of the tree of life. Students will have hands-on experience with fungi, algae, and land plants. (Formerly 3100:344)

**BIOL:345 Biology of Vascular Plants (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. A lecture and laboratory course which presents an overview of the anatomy, morphology, development and evolution of vascular plants. (Formerly 3100:345)

**BIOL:363 Foundations of Physiology I (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Fundamentals of physiology including integrating systems (neurophysiology, sensory processes, and endocrinology), movement, and muscle. For all pre-professional students and Biology majors. (Formerly 3100:363)

**BIOL:364 Foundations of Physiology Laboratory I (2 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Corequisite: BIOL 363. Laboratory experiments in animal physiology. (Transport processes, neurophysiology, endocrinology, muscle physiology.) Presentation of results in written scientific format. (Formerly 3100:364)

**BIOL:365 Histology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Cellular structure of organs in relation to their functional activity, life history, comparative development. Laboratory. (Formerly 3100:365)

**BIOL:367 Genomics (3 Credits)**

Prerequisites: BIOL 111 and BIOL 112. Study of genomes from all branches of life to develop a deeper understanding of functional genomics, genomic architecture, and impacts (ethical and social) of advances in genomics. (Formerly 3100:367)

**BIOL:401 Human Anatomy for Biology Majors (4 Credits)**

Prerequisite: BIOL 112 with a C- or better. Organizing principles and patterns found in human organs and systems. Laboratory integrates creative, analytical and virtual approaches to translate concept into practical application of anatomy. (Formerly 3100:401)

**BIOL:404 Digital Skills for Biologists (3 Credits)**

This course teaches students with no prior experience the fundamentals of programming, electronics, 3D printing, actuation and robotics for application to biological experiments. (Formerly 3100:404)

**BIOL:406 Principles of Systematics (3 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 211, and BIOL 316. The science of identifying, naming, and classifying the diversity of life. Topics include: nomenclature, types, techniques of data collection, and methods of phylogenetic reconstruction. (Formerly 3100:406)

**BIOL:418 Field Ecology (4 Credits)**

Prerequisite: BIOL 217 (statistics strongly recommended). Introduction to sampling methods, design of experiments and observations, and computer analysis; some local natural history. Laboratory. (Formerly 3100:418)

**BIOL:421 Tropical Field Biology (4 Credits)**

Prerequisites: Completion of courses BIOL 111 and BIOL 112 with a grade of C- or better, or equivalent. Ecology of coral reefs, tide pools, mangroves, intertidal zones, terrestrial flora and fauna, island biogeography. Taught at a field station in the tropics. Field trips involved; transportation costs. (Formerly 3100:421)

**BIOL:422 Conservation Biology (3 Credits)**

Prerequisite: BIOL 217. Explores the factors affecting survival of biodiversity, and how to develop practical approaches to resolve complicated conservation issues. (Formerly 3100:422)

**BIOL:423 Population Biology (3 Credits)**

Prerequisites: BIOL 211 and BIOL 217. Discussions of animal and plant ecology and evolutionary biology from a species and population level perspective. Includes topics in population ecology and population genetics. (Formerly 3100:423)

**BIOL:426 Wetland Ecology (4 Credits)**

Prerequisite: BIOL 217. Wetland ecology; principles and conservation. Field studies will be conducted at Bath Nature Preserve. Laboratory. (Formerly 3100:426)

**BIOL:427 Freshwater Ecology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better, or by permission. The course explores the diversity of aquatic life and key characteristics of freshwater ecosystems with emphasis on the Laurentian Great Lakes. Includes field trips, laboratory. (Formerly 3100:427)

**BIOL:428 Biology of Behavior (3 Credits)**

Prerequisites: BIOL 211, BIOL 217, and BIOL 316. Biological basis of behavior, ethology, and behavioral ecology. An evolutionary perspective is emphasized. (Formerly 3100:428)

**BIOL:429 Biology of Behavior Laboratory (1 Credit)**

Prerequisite or corequisite: BIOL 428 and permission of instructor. Individualized, directed study to provide the student with first-hand experience in observing, describing and interpreting animal behavior. (Formerly 3100:429)

**BIOL:430 Community/Ecosystem Ecology (3 Credits)**

Prerequisite: BIOL 217. An examination of the components, processes, and dynamics in communities and ecosystems. Includes reading and discussion of primary literature. (Formerly 3100:430)

**BIOL:433 Medical Microbiology (4 Credits)**

Prerequisite: BIOL 331. Pathogenic microorganisms, including bacteria, viruses, fungi, helminthes, and how they cause disease; host-pathogen interactions and the function of the immune response in controlling disease. Laboratory. (Formerly 3100:433)

**BIOL:437 Immunology (4 Credits)**

Prerequisite: BIOL 211 and BIOL 311. Nature of antigens, antibody response, and antigen-antibody reactions. Site and mechanism of antibody formations, hypersensitivity, immunologic tolerance and immune diseases considered. Laboratory. (Formerly 3100:437)

**BIOL:439 Advanced Immunology (3 Credits)**

Prerequisite: BIOL 437. Immunology is studied from a historical and current perspective. Topics include T cells, B cells, antigen presentation, HIV, and transplantation. (Formerly 3100:439)

**BIOL:440 Mycology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Structure, life history, classification of representative fungi with emphasis on the importance of fungi to humans. Laboratory. (Formerly 3100:440)

**BIOL:443 Phycology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Examination of the major groups of algae with emphasis on life histories and their relationship to algal form and structure. Laboratory. (Formerly 3100:443)

**BIOL:444 Field Marine Phycology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Collection and identification of tropical marine algae on San Salvador Island, The Bahamas. Discussion of characteristics and ecology of major groups of Caribbean algae. Laboratory. (Formerly 3100:444)

**BIOL:451 General Entomology (4 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217. Structure, physiology, life cycles, economic importance and characteristics of orders and major families of insects. Laboratories parallel lectures. (Formerly 3100:451)

**BIOL:453 Invertebrate Zoology (4 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217. Invertebrate groups, their classification, functional morphology, adaptive radiation and life history. A phylogenetic approach is used. Laboratories parallel lectures. (Formerly 3100:453)

**BIOL:454 Parasitology (4 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better. Principles of parasitism; host parasite interactions; important human and veterinary parasitic diseases; and control measures. Laboratories parallel lectures. (Formerly 3100:454)

**BIOL:455 Ichthyology (4 Credits)**

Prerequisites: BIOL 217. Study of fishes; incorporates aspects of evolution, anatomy, physiology, natural history, and commercial exploitation of fishes. Laboratory incorporates field-based exercises and fish taxonomy. (Formerly 3100:455)

**BIOL:456 Ornithology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Introduction to biology of birds: classification, anatomy, physiology, behavior, ecology, evolution, natural history and field identification. Laboratory and field trips. (Formerly 3100:456)

**BIOL:457 Herpetology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Survey of the diversity, ecology and evolution of amphibians and reptiles. Special emphasis is given to Ohio species. Laboratory. (Formerly 3100:457)

**BIOL:458 Vertebrate Zoology (4 Credits)**

Prerequisite: BIOL 316 or permission. Biology of vertebrates, except birds evolution, ecology, behavior, systematics and anatomy. Laboratory with field trips. (Formerly 3100:458)

**BIOL:460 Medical Histology (4 Credits)**

Prerequisite: BIOL 311. 100% online course. Structure of human cells and tissues and their identification. Functional organization of the human cell and tissues. (Formerly 3100:460)

**BIOL:463 Exercise Physiology (3 Credits)**

Prerequisite: BIOL 363 or instructor permission. Through lecture, reading and critical analysis of current literature, physiologic mechanisms of exercise in animals will be explored. (Formerly 3100:463)

**BIOL:465 Advanced Cardiovascular Physiology (3 Credits)**

Prerequisite: BIOL 202, or BIOL 363, or BIOL 473. Study of biological mechanisms involved in heart attack, strokes, fluid balance, hypertension and heart disease. Controversial issues in each area will be examined and current research presented. (Formerly 3100:465)

**BIOL:466 Vertebrate Embryology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Lectures focus on development of model vertebrate organisms, and cellular and molecular mechanisms underlying animal development. (Formerly 3100:466)

**BIOL:467 Comparative Vertebrate Morphology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. An introduction to the comparative morphology of major vertebrates. The laboratories consist of dissections of representative vertebrates. (Formerly 3100:467)

**BIOL:468 The Physiology of Reproduction (3 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, or BIOL 202. Study of the physiological mechanisms of reproduction throughout the animal kingdom with emphasis upon mammalian endocrinological control. Controversial issues and current research will be examined. (Formerly 3100:468)

**BIOL:469 Respiratory Physiology (3 Credits)**

Prerequisite: BIOL 202, or BIOL 363, or BIOL 473. Study of mechanisms determining gas exchange including mechanics, ventilation, blood flow, diffusion, and control systems. Emphasis is given to normal human lung function. (Clinical aspects are not considered in detail.) (Formerly 3100:469)

**BIOL:470 Lab Animal Regulations (1 Credit)**

Required of anyone working with animals, and covers government regulations, care of animals and a lab to teach basic animal handling and measurement techniques. (Formerly 3100:470)

**BIOL:471 Physiological Genetics (4 Credits)**

Prerequisite: BIOL 211 or equivalent and [BIOL 202, or BIOL 363, or BIOL 473]. The integrative study of how genetics and physiology influence complex systems from molecular to behavioral in plants and animals. Laboratory. (Formerly 3100:471)

**BIOL:472 Biological Mechanisms of Stress (3 Credits)**

Prerequisite: BIOL 202, or BIOL 363, or BIOL 473. Study of mechanisms from molecular to behavioral of how stress influences body systems and signals. The latest research and experimental issues are discussed. (Formerly 3100:472)

**BIOL:473 Foundations of Physiology II (3 Credits)**

Prerequisite: BIOL 363. Continuing fundamentals of physiology including metabolism and temperature, respiration and circulation, and osmoregulation. Adaption to extreme environments is emphasized. (Formerly 3100:473)

**BIOL:474 Foundations of Physiology Laboratory II (1 Credit)**

Prerequisite: BIOL 364; corequisite BIOL 473. Laboratory experiments in animal physiology (respiration, circulation, metabolism, osmoregulation). Presentation of results in scientific format and as oral reports. (Formerly 3100:474)

**BIOL:475 Comparative Biomechanics (3 Credits)**

Investigation of how physical constraints on biological materials, structural mechanics and locomotion relate to the survival and evolution of living organisms. (Formerly 3100:475)

**BIOL:478 Renal Physiology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. The study of how the kidneys affect other body systems and how, in turn, they are affected by these systems. (Formerly 3100:478)

**BIOL:480 Molecular Biology (3 Credits)**

Prerequisite: BIOL 211 and BIOL 311. Fundamentals of molecular biology, including recombinant DNA technology, applications in biotechnology, medicine, and genetic engineering. Mechanisms of gene regulation. (Formerly 3100:480)

**BIOL:481 Advanced Genetics (3 Credits)**

Prerequisite: BIOL 211. Nature of the gene; genetic codes; hereditary determinants; mutagenesis and genes in population. Lecture and seminar. (Formerly 3100:481)

**BIOL:482 Neurobiology (3 Credits)**

Prerequisites: Completion of BIOL 111 and BIOL 112 with a grade of "C-" or better. History of Neuroscience; organization, function and development of the central nervous system; electrophysiological properties of nerve cells; learning and memory; molecular basis for mental diseases. (Formerly 3100:482)

**BIOL:483 Research Techniques in Neuroscience (3 Credits)**

Prerequisite: [BIOL 112, or BIOL 202, or BIOL 320] with a C or better. Discover how the most cutting edge neuroscience research techniques are designed and implemented to further our understanding of the brain and visual system. (Formerly 3100:483)

**BIOL:485 Cell Physiology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better and CHEM 401. Explores molecular and biochemical aspects of energy metabolism, inter and intracellular signaling, growth and death of cells. Emphasizes up-to-date scientific literature. (Formerly 3100:485)

**BIOL:486 Cell Physiology Laboratory (2 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better and CHEM 401. Corequisite: BIOL 485. Practice of modern cell physiology laboratory techniques. Emphasis on student directed original research. (Formerly 3100:486)

**BIOL:494 Workshop in Biology (1-3 Credits)**

(May be repeated) Prerequisite: Permission of instructor. Group studies of special topics in biology. May not be used to meet undergraduate or graduate major requirements in biology. May be used for elective credit only. (Formerly 3100:494)

**BIOL:495 Special Topics in Biology (1-3 Credits)**

Prerequisite: Permission. Special courses offered occasionally in areas where no formal course exists. (Formerly 3100:495)

**BIOL:496 Internship in Biology (1-3 Credits)**

(May be repeated for maximum of 6 credits) Prerequisites: Permission of department and a minimum 3.0 GPA in Biology courses (20 credits minimum). Work experience to focus on career applications in Biology. Maximum 3 credits will count towards Biology electives. (Formerly 3100:496)

**BIOL:497 Biological Problems (1-3 Credits)**

(May be repeated for a total of 6 credits) Prerequisites: Permission of department, 2.0 GPA or better in Biology coursework, and currently in the College of Arts & Sciences. Advanced level work, usually consisting of laboratory investigations. A maximum of 4 credits may apply toward the major degree requirements. (Formerly 3100:497)

**BIOL:499 Senior Honors Program in Biology (1-3 Credits)**

(May be repeated for a total of five credits) Prerequisites: senior standing in Honors College and approval of honors preceptor. Open only to biology and natural sciences divisional majors in Honors College. Independent study leading to completion of approved senior honors. (Formerly 3100:499)

## Biology, BS

### Bachelor of Science in Biology (310000BS)

More on the Biology major (<https://www.uakron.edu/biology/academics/undergraduate/>)

The following information has official approval of **The Department of Biology** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Biology Core Requirement	47-50
	Biology Electives	19
	Additional Credits for Graduation *	6-3
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirements

Code	Title	Hours
Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.		
<b>Foreign Language</b>		<b>14</b>
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Biology Core Requirements

Code	Title	Hours
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
BIOL:211	General Genetics	3
BIOL:217	General Ecology	3
BIOL:311	Cell & Molecular Biology	4
BIOL:316	Evolutionary Biology	3

CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:266	Organic Chemistry Laboratory II	2
MATH:149	Precalculus Mathematics	3-4
or MATH:154	Technical Mathematics IV	
or MATH:215	Concepts of Calculus	
or MATH:221	Analytic Geometry-Calculus I	
STAT:250	Statistics for Everyday Life	2-4
or STAT:260	Basic Statistics	
or STAT:261	Introductory Statistics I	
STAT:262	Introductory Statistics II	2
Total Hours		47-50

## Biology Electives

Code	Title	Hours
<b>Complete 19 credits:</b> <sup>1</sup>		<b>19</b>
BIOL 3xx/4xx		
Total Hours		19

<sup>1</sup> Credits must be at the 300/400 level and must not be used in the core.

## Biology, Minor Minor in Biology (310000M)

### Program Contact

*Dr. Stephen Weeks*

*Professor and Chair, Department of Biology*

*330-972-6954*

*scweeks@uakron.edu*

The following information has official approval of the **Department of Biology** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Biology" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		21
Electives		2-3
Total Hours		23-24

## Required Courses

Code	Title	Hours
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
BIOL:211	General Genetics	3
BIOL:217	General Ecology	3
BIOL:316	Evolutionary Biology	3
BIOL:311 or BIOL:331	Cell & Molecular Biology Microbiology	4
Total Hours		21

## Electives

Code	Title	Hours
<b>Select any 300/400 level course for 2-3 credits</b>		<b>2-3</b>
BIOL 3xx	300-level Biology Elective	
BIOL 4xx	400-level Biology Elective	
Total Hours		2-3

## Biomedical Science, BS

### Bachelor of Science in Biomedical Science (390002BS)

More on the Biomedical Science major (<https://www.uakron.edu/biology/academics/undergraduate-major-information/biology-undergraduate-degree.dot>)

The biomedical science major provides for a broad background in science with concentrations in biology, chemistry, math and physics.

This major is designed with the appropriate coursework to prepare and ensure your maximal success on entrance tests like the MCAT, and for your success in professional school in general.

#### You'll be prepared to:

- analyze and interpret scientific material
- present scientific or health care-related information clearly and persuasively
- imagine and evaluate alternative ideas
- use research to more effectively address scientific problems

The following information has official approval of **The Department of Biology** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Biology Requirements		34
Chemistry Requirements		25
Math and Physics Requirements		16
Program Requirements		12
Total Hours		121

## Recommended General Education Courses

**Code**                      **Title**    **Hours**

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:221	Analytic Geometry-Calculus I	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
	or COMM:106 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
PSYC:100	Introduction to Psychology	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirements

**Code**                      **Title**    **Hours**

Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

Upper-level (300/400) courses both in and outside of the student's major;  
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Biology Requirements

Code	Title	Hours
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
BIOL:211	General Genetics	3
BIOL:212	Genetics Laboratory	1
BIOL:316	Evolutionary Biology	3
BIOL:363	Foundations of Physiology I	3
BIOL:364	Foundations of Physiology Laboratory I	2
BIOL:485	Cell Physiology	3
BIOL:486	Cell Physiology Laboratory	2
BIOL 3xx/4xx	Biology Electives	9
Total Hours		34

## Chemistry Requirements

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:264	Organic Chemistry Lecture II	3
CHEM:266	Organic Chemistry Laboratory II	2
CHEM:401	Biochemistry Lecture I	3
CHEM:402	Biochemistry Lecture II	3
Total Hours		25

## Math and Physics Requirements

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
STAT:261	Introductory Statistics I	2
STAT:262	Introductory Statistics II	2
PHYS:261	Physics for Life Sciences I	4
PHYS:262	Physics for Life Sciences II	4
Total Hours		16

## Program Requirements

Code	Title	Hours
ANTH:309	Medicine & the Humanities	3
or ANTH:457	Medical Anthropology	
or SOCIO:342	Sociology of Health & Illness	
or SOCIO:450	Sociology of Mental Illness	
PHIL:361	Biomedical Ethics	3
PSYC:100	Introduction to Psychology	3

SOCIO:100	Introduction to Sociology	3
Total Hours		12

## Recommended Sequence

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
BIOL:111	Principles of Biology I	4
MATH:149	Precalculus Mathematics	4
ENGL:111	English Composition I	3
Hours		15

### Spring Semester

CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
MATH:221	Analytic Geometry-Calculus I	4
BIOL:112	Principles of Biology II	4
ENGL:112	English Composition II	3
Hours		16

### 2nd Year

#### Fall Semester

CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
BIOL:211	General Genetics	3
BIOL:212	Genetics Laboratory	1
PHYS:261	Physics for Life Sciences I	4
PSYC:100	Introduction to Psychology	3
Hours		16

#### Spring Semester

CHEM:264	Organic Chemistry Lecture II	3
CHEM:266	Organic Chemistry Laboratory II	2
BIOL:316	Evolutionary Biology	3
PHYS:262	Physics for Life Sciences II	4
SOCIO:100	Introduction to Sociology	3
Hours		15

### 3rd Year

#### Fall Semester

CHEM:401	Biochemistry Lecture I	3
BIOL:363	Foundations of Physiology I	3
BIOL:364	Foundations of Physiology Laboratory I	2
STAT:261	Introductory Statistics I	2
STAT:262	Introductory Statistics II	2
PHIL:361	Biomedical Ethics	3
Hours		15

#### Spring Semester

CHEM:402	Biochemistry Lecture II	3
BIOL:485	Cell Physiology	3
BIOL:486	Cell Physiology Laboratory	2
ANTH:309	Medicine & the Humanities	3
COMM:105	Introduction to Public Speaking	3
Hours		14



**4th Year****Fall Semester**

300/400 Biology Elective	3
300/400 Biology Elective	3
Humanities Requirement	3
Arts Requirement	3
Free Electives	3
Hours	15

**Spring Semester**

300/400 Biology Elective	3
Complex Issues Requirement	3
Free Electives	8
Hours	14
Total Hours	120

## Chemistry

Chemistry is an experimental science that seeks to understand the structure and function of molecules. Chemists synthesize new materials, and study their properties and how they interact with other compounds. The B.S. degrees offered by the department prepare students for independent laboratory work and research. The B.A. degree is less strongly focused on research and prepares students for professional degrees like medicine, dentistry and pharmacy.

### Admission, Retention and Graduation

- The student must maintain a minimum 2.00 grade point average
- The student must obtain a grade of C- or better in all required chemistry courses

### Introduction

In Northeast Ohio, there is a growing demand for professionals trained in polymer chemistry. The polymer industry is one of the major industrial sectors of the economy of Ohio. The BS/MS Polymer Chemistry degree was instituted to prepare students for jobs in this area. The program provides a quality undergraduate science degree coupled with a graduate degree from one of the premier polymer programs in the country.

Students who are admitted to this program can complete the undergraduate phase of the course of study in three years and then immediately begin graduate studies in polymer science. Under rare circumstances, a student can complete the undergraduate phase in four years after approval of the advisers. A student not proceeding to the graduate program in Polymer Science may complete the degree requirements for the BS Natural Sciences - Polymer Chemistry Concentration.

Students earn a Bachelors degree in Natural Science from the Buchtel College of Arts and Sciences (<https://www.uakron.edu/bcas/>) that is heavily weighted toward chemistry. They will be assigned an adviser in the Department of Chemistry (<https://www.uakron.edu/chemistry/>) and a co-adviser in the Department of Polymer Science (<https://www.uakron.edu/cpspe/>) who will advise them throughout their undergraduate program. Once the undergraduate degree is completed students begin studies to earn a Masters of Science from the College of Polymer Science and Polymer Engineering (<https://www.uakron.edu/cpspe/>) that will require two years of courses and research.

## Admission, Retention, and Graduation

- Honors Students who express interest will be admitted into the 3+2 program after an interview
- Students must have a 3.70 grade point average in all undergraduate science and math classes at the end of the first semester in the third year
- Students who earn a grade less than a C- in any required science or math class will have to repeat the course and earn a grade of C- or better

## Cooperative Education Program in Chemistry

### Qualifications

Arrangements for entry into the program are on an individual basis and are initiated by the student during the second year of undergraduate study. Full-time B.S. chemistry majors at The University of Akron must meet the following requirements:

- Satisfactory completion of 60 credits with a quality point average of at least 2.3 in chemistry courses and on schedule in their curriculum.
- Acceptance by a cooperative education coordinator or director following a series of interviews
- Part-time students must have completed 60 credits with a 2.3 average and be on schedule in their curriculum
- Transfer students must have preparation equivalent to the minimum requirements for The University of Akron students and must have completed at least one semester of full-time study at The University of Akron

Placement in an industrial or other position is not guaranteed, and foreign students should recognize that many companies require U.S. citizenship or possession of a permanent visa. In any case, final acceptance of a student for any position is the decision of the employer.

### Schedule

The work-study schedule for students in the co-op program is as follows:

Fall	Spring	Summer
School	School	Vacation/School
School	School	Vacation/School/Work
School	Work	School
Work	School	Work
School	School	

### Admission to Program

Interested students should attend a Cooperative Education orientation session. Students will be expected to remain with their employer for all co-op work periods in order to provide a progression of experience and responsibility. Employment must have approval of the department and the Cooperative Education director, but the University does not guarantee employment.

### Registration

Students register for Cooperative Work Periods in the same manner that a student registers for any other University courses. The course is: BCAS:301 Cooperative Education.

A registration fee for each work period is charged to offset the expenses of administering the Co-op Program. Upon completion of a work period, a statement will appear on the student's official transcript listing the course number and title. In place of a grade, "credit" or "no credit" will be given, depending upon the student's satisfactory or unsatisfactory completion of the following:

- Work performance as evaluated by the employer
  - Submission of a written Work Report and its approval by the Cooperative Education staff
  - Submission of a Cooperative Work Period Summary Form
- Biochemistry, BS (p. 92)
  - Chemistry, BA (p. 93)
  - Chemistry, BS (p. 95)
  - Chemistry, Minor (p. 96)
  - Chemistry, Polymer Option, BS (p. 97)

## Chemistry (CHEM)

### **CHEM:100 Chemistry & Society (3 Credits)**

Qualitative introduction to chemistry using current world problems and commercial products, such as the ozone layer, nuclear fission, polymers and drugs, to introduce chemical principles. (Formerly 3150:100)

### **CHEM:101 Chemistry for Everyone (4 Credits)**

Integrated, hands-on, laboratory instruction in the fundamental concepts of chemistry for general education and middle-level licensure for pre-service and in-service teachers. (Formerly 3150:101)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### **CHEM:110 Introduction to General, Organic & Biochemistry I (Lecture) (3 Credits)**

Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation. (Formerly 3150:110)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

### **CHEM:111 Introduction to General, Organic & Biochemistry I (Laboratory) (1 Credit)**

Prerequisite/Corequisite: CHEM 110. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry. (Formerly 3150:111)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### **CHEM:112 Introduction to General, Organic & Biochemistry II (Lecture) (3 Credits)**

Prerequisite: CHEM 110. Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation. (Formerly 3150:112)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

### **CHEM:113 Introduction to General, Organic & Biochemistry II (Laboratory) (1 Credit)**

Prerequisite/Corequisite: CHEM 112. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry. (Formerly 3150:113)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### **CHEM:114 Introduction to General, Organic & Biochemistry (Lecture) (4 Credits)**

Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation. (Formerly 3150:114)

### **CHEM:115 Introduction to General, Organic & Biochemistry (Laboratory) (1 Credit)**

Pre/Corequisite: CHEM 114. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry. (Formerly 3150:115)

### **CHEM:151 Principles of Chemistry I (3 Credits)**

Prerequisite: placement in MATH 149 or MATH 154 or permission. Introduction to basic facts and principles of chemistry including atomic and molecular structure, states of matter and thermodynamics. For chemistry majors, pre-medical students and most other science majors. Discussion (day sections). (Formerly 3150:151)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

### **CHEM:152 Principles of Chemistry I Laboratory (1 Credit)**

Pre/Corequisite: CHEM 151. Laboratory course applying principles of thermodynamics, chemical analysis and laboratory practice. (Formerly 3150:152)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### **CHEM:153 Principles of Chemistry II (3 Credits)**

Pre/Corequisite: CHEM 151. Continuation of 151, 152, including aqueous solution theory, chemical kinetics, equilibrium, electrochemistry and nuclear chemistry. For chemistry majors, premedical students and most other science majors. Discussion (day sections). (Formerly 3150:153)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

### **CHEM:154 Qualitative Analysis (2 Credits)**

Prerequisite: CHEM 152; pre/corequisite: CHEM 153. Laboratory course applying principles of chemical equilibrium to inorganic qualitative analysis. (Formerly 3150:154)

### **CHEM:199 Introductory Seminar in Chemistry (1 Credit)**

Basic concepts in chemistry practice including written and oral communication skills, computer skills, professional ethics, environmental issues, chemical literature, degree options, and career considerations. (Formerly 3150:199)

### **CHEM:263 Organic Chemistry Lecture I (3 Credits)**

Sequential. Prerequisite: CHEM 153 or permission. Structure and reactions of organic compounds, mechanism of reactions. (Formerly 3150:263)

### **CHEM:264 Organic Chemistry Lecture II (3 Credits)**

Sequential. Prerequisite: CHEM 263 or permission. Structure and reactions of organic compounds, mechanism of reactions. (Formerly 3150:264)

**CHEM:265 Organic Chemistry Laboratory I (2 Credits)**

Sequential. Prerequisite: CHEM 154; pre/corequisite: CHEM 263. Laboratory experiments to develop techniques in organic chemistry and illustrate principles. Discussion. (Formerly 3150:265)

**CHEM:266 Organic Chemistry Laboratory II (2 Credits)**

Sequential. Prerequisite: CHEM 265. Laboratory experiments to develop techniques in organic chemistry and illustrate principles. Discussion. (Formerly 3150:266)

**CHEM:305 Physical Chemistry for the Biological Sciences (4 Credits)**

Prerequisites: CHEM 264, MATH 222, and [PHYS 262 or PHYS 292]. Chemical thermodynamics, kinetics, molecular structure and spectra. Accepted for the BS degree in Biochemistry. (Formerly 3150:305)

**CHEM:313 Physical Chemistry Lecture I (3 Credits)**

Prerequisites: CHEM 264, MATH 223, and PHYS 291. Gases, thermodynamics, thermochemistry, solutions, dilute solutions, chemical equilibrium, phase rule, chemical kinetics, electrochemistry, electrolytic equilibria. (Formerly 3150:313)

**CHEM:314 Physical Chemistry Lecture II (3 Credits)**

Prerequisites: CHEM 264, and MATH 335, and PHYS 292. Atomic and molecular structure and spectroscopy. (Formerly 3150:314)

**CHEM:370 Biochemistry Laboratory (2 Credits)**

Prerequisite: CHEM 266. An integrated laboratory experience covering the isolation, characterization and analysis of enzymes and DNA, protein synthesis and purification, enzyme kinetics, biochemical databases and statistical treatment of data. (Formerly 3150:370)

**CHEM:380 Advanced Chemistry Laboratory I (2 Credits)**

Prerequisite: CHEM 266. A laboratory experience that focuses on the synthetic and spectroscopic techniques of modern inorganic chemistry, including bio-inorganic and organometallic compounds. (Formerly 3150:380)

**CHEM:381 Advanced Chemistry Laboratory II (2 Credits)**

Prerequisite CHEM 266; corequisite: CHEM 314 or CHEM 305 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, and instrumental techniques. (Formerly 3150:381)

**CHEM:399 Internship in Chemistry (1-3 Credits)**

Prerequisites: minimum GPA of 2.5; permission of the Department. Work experience focused on career applications of the discipline of Chemistry. (May repeat for a maximum of six credits.) (Formerly 3150:399)

**CHEM:401 Biochemistry Lecture I (3 Credits)**

Prerequisite: CHEM 264. Biochemistry of amino acids, carbohydrates, lipids, and nucleic acids: structure/function relations. Enzymes as catalysts: kinetics and regulation. Cofactors. (Formerly 3150:401)

**CHEM:402 Biochemistry Lecture II (3 Credits)**

Prerequisite: CHEM 401. Overview of metabolism; thermodynamics; carbohydrate, fatty acid, amino acid, and nucleoside anabolism and catabolism; hormonal control of metabolism. Photosynthesis. (Formerly 3150:402)

**CHEM:406 Biochemistry of Gene Expression (3 Credits)**

Prerequisites: BIOL 311 and CHEM 401. DNA, RNA, and protein synthesis, translation and transcription. Gene function and expression, cell cycle and cancer, genetic engineering, gene silencing, gain of function studies. (Formerly 3150:406)

**CHEM:410 Special Readings in Analytical Chemistry (1-3 Credits)**

Prerequisite: Junior standing or higher. Selected topics in advanced analytical chemistry for which no course exists. (May be repeated) (Formerly 3150:410)

**CHEM:411 Special Readings in Inorganic Chemistry (1-3 Credits)**

Prerequisite: Junior standing or higher. Selected topics in advanced inorganic chemistry for which no course exists. (May be repeated) (Formerly 3150:411)

**CHEM:412 Special Readings in Organic Chemistry (1-3 Credits)**

Prerequisite: Junior or greater standing. Selected topics in advanced organic chemistry for which no course exists. (May be repeated) (Formerly 3150:412)

**CHEM:413 Special Readings in Physical Chemistry (1-3 Credits)**

Prerequisite: Junior or greater standing. Selected topics in advanced physical chemistry for which no course exists. (May be repeated) (Formerly 3150:413)

**CHEM:415 Special Readings in Biochemistry (1-3 Credits)**

Prerequisite: Junior or greater standing. Selected topics in advanced biochemistry for which no course exists. (May be repeated) (Formerly 3150:415)

**CHEM:423 Analytical Chemistry I (3 Credits)**

Prerequisite: CHEM 154 and CHEM 263. Theoretical principles of quantitative and instrumental analysis. (Formerly 3150:423)

**CHEM:424 Analytical Chemistry II (3 Credits)**

Prerequisite: CHEM 154 and CHEM 263. Instrumental analysis with emphasis on newer analytical tools and methods. (Formerly 3150:424)

**CHEM:463 Advanced Organic Chemistry (3 Credits)**

Prerequisite: CHEM 264. Introduction to study of mechanisms of organic reactions. (Formerly 3150:463)

**CHEM:472 Advanced Inorganic Chemistry (3 Credits)**

Prerequisites: CHEM 314 or CHEM 305. Concepts of atomic structure integrated in systematic classification of elements. Periodic table. Chemistry of the representative elements. Transition elements including coordination compounds, organometallics and metal carbonyls. (Formerly 3150:472)

**CHEM:480 Advanced Chemistry Laboratory III (2 Credits)**

Prerequisite: CHEM 381; or Corequisite: CHEM 305; or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instrumental techniques, and inorganic chemistry. (Formerly 3150:480)

**CHEM:490 Workshop in Chemistry (1-3 Credits)**

(May be repeated) Group studies of special topics in chemistry. May not be used to meet undergraduate or graduate major requirements in chemistry. (Formerly 3150:490)

**CHEM:497 Honors Project in Chemistry (2 Credits)**

(May be repeated for a total of eight credits) Prerequisites: Junior or senior standing in Honors College and permission of department honors preceptor. Independent research leading to completion of honors thesis under guidance of honors project adviser. (Formerly 3150:497)

**CHEM:498 Special Topics in Chemistry (1-3 Credits)**

Special Topics in Chemistry. (Formerly 3150:498)

**CHEM:499 Research Problems in Chemistry (1-2 Credits)**

(May be repeated for a total of eight credits) Prerequisite: Permission. Assignment of special problems to student, designed as an introduction to research problems. (Formerly 3150:499)

# Biochemistry, BS

## Bachelor of Science in Biochemistry (315002BS)

More on the Biochemistry major (<https://www.uakron.edu/chemistry/undergraduate.dot>)

The following information has official approval of **The Department of Chemistry** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Chemistry Requirements	33-35
	Biology Requirements	24
	Physics Requirements	8
	Mathematics Requirements	8
	Biochemistry Electives	8
	<b>Total Hours</b>	<b>129-131</b>

### General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	

Diversity	
	Domestic Diversity
	Global Diversity
Integrated and Applied Learning	
<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society
	Capstone
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

### College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
	<i>Foreign Language</i>	<b>14</b>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	
	202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

- Upper-level (300/400) courses both in and outside of the student's major;
- or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

### Chemistry Requirements <sup>1</sup>

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:266	Organic Chemistry Laboratory II	2
CHEM:370	Biochemistry Laboratory	2
CHEM:401	Biochemistry Lecture I	3
CHEM:402	Biochemistry Lecture II	3
CHEM:480	Advanced Chemistry Laboratory III <sup>3</sup>	2
<b>Select one of the following:</b>		<b>4-6</b>
	CHEM:305 Physical Chemistry for the Biological Sciences	
	-or-	
	CHEM:313 Physical Chemistry Lecture I & CHEM:314 and Physical Chemistry Lecture II	
<b>Total Hours</b>		<b>33-35</b>

- <sup>1</sup> Complete with a grade of C- or better
- <sup>2</sup> Biochemistry majors meet the prerequisite requirements for this course

## Biology Requirements

Code	Title	Hours
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
BIOL:211	General Genetics	3
BIOL:212	Genetics Laboratory	1
BIOL:311	Cell & Molecular Biology	4
BIOL:480	Molecular Biology	3
BIOL:485	Cell Physiology	3
BIOL:486	Cell Physiology Laboratory	2
Total Hours		24

## Physics Requirement

Code	Title	Hours
<b>Select one of the following:</b>		
PHYS:261 & PHYS:262	Physics for Life Sciences I and Physics for Life Sciences II	8
-or-		
PHYS:291 & PHYS:292	Elementary Classical Physics I and Elementary Classical Physics II	8
Total Hours		8

## Mathematics Requirement

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
Total Hours		8

## Biochemistry Electives

Code	Title	Hours
<b>Select at least eight credits of the following:</b>		
BIOL:331	Microbiology	
BIOL:437	Immunology	
BIOL:481	Advanced Genetics	
BIOL:497	Biological Problems	
CHEM:199	Introductory Seminar in Chemistry	
CHEM:380	Advanced Chemistry Laboratory I <sup>1</sup>	
CHEM:381	Advanced Chemistry Laboratory II <sup>1</sup>	
CHEM:399	Internship in Chemistry	
CHEM:423	Analytical Chemistry I	
CHEM:424	Analytical Chemistry II	
CHEM:463	Advanced Organic Chemistry	
CHEM:472	Advanced Inorganic Chemistry	
CHEM:497	Honors Project in Chemistry <sup>2</sup>	
CHEM:499	Research Problems in Chemistry <sup>2</sup>	
STAT:401	Probability and Statistics for Engineers	
PLYS:407	Polymer Science	
PLYS:497	Honors Project in Polymer Science	

Code	Title	Hours
PLYS:499	Research Problems in Polymer Science	8
Total Hours		8

- <sup>1</sup> Biochemistry majors meet the prerequisite requirements for this course.
- <sup>2</sup> Course may be repeated for up to eight credits.

## Chemistry, BA

### Bachelor of Arts in Chemistry (315000BA)

More on the Chemistry major (<https://www.uakron.edu/chemistry/undergraduate.dot>)

## Program Description

Chemistry is an experimental science that seeks to understand the structure and function of molecules. Chemists synthesize new materials, and study their properties and how they interact with other compounds. The BS degrees offered by the department prepare students for independent laboratory work and research. The BA degree is less strongly focused on research and prepares students for professional degrees like medicine, dentistry and pharmacy.

## Admission, Retention and Graduation

The student must maintain a minimum 2.00 grade point average. The student must obtain a grade of C- or better in all required chemistry courses.

The following information has official approval of **The Department of Chemistry** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
College of Arts & Sciences Requirements		14
Chemistry Requirements		31-33
Physics Requirements		8

Mathematics Requirements	8
Advanced Chemistry Electives	5
Additional Credits for Graduation *	20-18
<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Foreign Language</i>		<b>14</b>
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Chemistry Requirements <sup>1</sup>

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:266	Organic Chemistry Laboratory II	2
CHEM:380	Advanced Chemistry Laboratory I	2
CHEM:423	Analytical Chemistry I	3
CHEM:424	Analytical Chemistry II	3
<b>Select one of the following:</b>		<b>4-6</b>
CHEM:305	Physical Chemistry for the Biological Sciences	
<i>-or-</i>		
CHEM:313 & CHEM:314	Physical Chemistry Lecture I and Physical Chemistry Lecture II	
<b>Total Hours</b>		<b>31-33</b>

<sup>1</sup> If a grade of less than C- is earned in a required chemistry course, the student must successfully repeat that course within a year.

## Physics Requirements

Code	Title	Hours
<b>Select one of the following:</b>		<b>8</b>
PHYS:261 & PHYS:262	Physics for Life Sciences I and Physics for Life Sciences II	
<i>-or-</i>		
PHYS:291 & PHYS:292	Elementary Classical Physics I and Elementary Classical Physics II	
<b>Total Hours</b>		<b>8</b>

## Mathematics Requirements

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
<b>Total Hours</b>		<b>8</b>

## Advanced Chemistry Electives

Code	Title	Hours
<b>Select at least five credits of the following:</b>		<b>5</b>
CHEM:199	Introductory Seminar in Chemistry	
CHEM:381	Advanced Chemistry Laboratory II	
CHEM:399	Internship in Chemistry <sup>1</sup>	
CHEM:401	Biochemistry Lecture I	
CHEM:402	Biochemistry Lecture II	
CHEM:463	Advanced Organic Chemistry	
CHEM:472	Advanced Inorganic Chemistry	
CHEM:480	Advanced Chemistry Laboratory III	
CHEM:497	Honors Project in Chemistry	
CHEM:498	Special Topics in Chemistry <sup>2</sup>	

CHEM:499	Research Problems in Chemistry <sup>2</sup>	
PLYS:403	Polymer Chemistry	
PLYS:404	Polymer Physics	
PLYS:405	Polymer Science Laboratory	
Total Hours		5

<sup>1</sup> May be repeated for a total of six credits.

<sup>2</sup> May be repeated for a total of eight credits.

## Chemistry, BS

### Bachelor of Science in Chemistry (315000BS)

More on the Chemistry major (<https://www.uakron.edu/chemistry/undergraduate.dot>)

### Program Description

Chemistry is an experimental science that seeks to understand the structure and function of molecules. Chemists synthesize new materials, and study their properties and how they interact with other compounds. The BS degrees offered by the department prepare students for independent laboratory work and research. The BA degree is less strongly focused on research and prepares students for professional degrees like medicine, dentistry and pharmacy.

### Admission, Retention and Graduation

The student must maintain a minimum 2.00 grade point average. The student must obtain a grade of C- or better in all required chemistry courses.

The following information has official approval of **The Department of Chemistry** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14

Chemistry Requirements	40	
Physics Requirements	8	
Mathematics Requirements	15	
Advanced Chemistry Electives	7	
Additional Credits for Graduation *	2	
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Foreign Language</i>		<b>14</b>
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Chemistry Requirements <sup>1</sup>

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:266	Organic Chemistry Laboratory II	2
CHEM:313	Physical Chemistry Lecture I	3
CHEM:314	Physical Chemistry Lecture II	3
CHEM:380	Advanced Chemistry Laboratory I	2
CHEM:381	Advanced Chemistry Laboratory II	2
CHEM:423	Analytical Chemistry I	3
CHEM:424	Analytical Chemistry II	3
CHEM:472	Advanced Inorganic Chemistry	3
CHEM:480	Advanced Chemistry Laboratory III	2
Total Hours		40

<sup>1</sup> If a grade of less than C- is earned in a required chemistry course, the student must successfully repeat that course within a year.

## Physics Requirements

Code	Title	Hours
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		8

## Mathematics Requirements

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
Total Hours		15

## Advanced Chemistry Electives

Code	Title	Hours
<b>Select at least seven credits of the following:</b>		
CHEM:399	Internship in Chemistry <sup>1</sup>	7
CHEM:401	Biochemistry Lecture I	
CHEM:402	Biochemistry Lecture II	
CHEM:463	Advanced Organic Chemistry	
CHEM:497	Honors Project in Chemistry <sup>2</sup>	
CHEM:498	Special Topics in Chemistry <sup>2</sup>	
CHEM:499	Research Problems in Chemistry <sup>2</sup>	
PLYS:403	Polymer Chemistry	

PLYS:404	Polymer Physics	
PLYS:405	Polymer Science Laboratory	
Total Hours		7

<sup>1</sup> May be repeated for a total of six credits.

<sup>2</sup> May be repeated for a total of eight credits.

## Chemistry, Minor Minor in Chemistry (315000M)

### Program Contact

*Dr. Chris Ziegler*  
Professor, Chemistry  
330-972-7365  
ziegler@uakron.edu

The following information has official approval of the **Department of Chemistry** and **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Chemistry" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		13
Electives		6
Total Hours		19

## Required Courses

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
Total Hours		13

## Electives

Code	Title	Hours
<b>Select 6 credits of 300/400 level Chemistry courses</b>		
CHEM 3XX	300-level Chemistry Elective <sup>1</sup>	6
CHEM 4XX	400-level Chemistry Elective <sup>1</sup>	
Total Hours		6



<sup>1</sup> For additional 300/400 level chemistry courses, a premed, medical technology or biology student might take CHEM:401 Biochemistry Lecture I, CHEM:402 Biochemistry Lecture II (three credits each). An engineering or physics major might select CHEM:313 Physical Chemistry Lecture I, CHEM:314 Physical Chemistry Lecture II (three credits each). Analytical or instrumental courses might be attractive to students in other fields. Students who intend to minor in chemistry should seek advice from the Chemistry Department about the 300/400 level courses that would be most relevant to their interests.

Note: Chemical engineering majors automatically fulfill the requirements for a minor in chemistry.

## Chemistry, Polymer Option, BS

### Bachelor of Science in Chemistry, Polymer Option (315001BS)

More on the Chemistry, Polymer Option major (<https://www.uakron.edu/chemistry/undergraduate.dot>)

The following information has official approval of **The Department of Chemistry** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Chemistry Requirements	38
	Polymer Requirements	9
	Physics Requirements	8
	Mathematics Requirements	15
	Additional Credits for Graduation *	2
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	

*Writing: 6 credit hours*

**Breadth of Knowledge** **22**

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

**Total Hours** **34**

## College of Arts & Sciences Requirements

**Code** **Title** **Hours**

**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

*Foreign Language* **14**

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Chemistry Requirements <sup>1</sup>

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:266	Organic Chemistry Laboratory II	2
CHEM:313	Physical Chemistry Lecture I	3
CHEM:314	Physical Chemistry Lecture II	3
CHEM:380	Advanced Chemistry Laboratory I	2
CHEM:381	Advanced Chemistry Laboratory II	2
CHEM:423	Analytical Chemistry I	3
CHEM:424	Analytical Chemistry II	3

CHEM:472	Advanced Inorganic Chemistry	3
Total Hours		38

<sup>1</sup> If a grade of less than C- is earned in a required chemistry course, the student must successfully repeat that course within a year.

## Polymer Requirements

Code	Title	Hours
PLYS:403	Polymer Chemistry	3
PLYS:404	Polymer Physics	3
or PLYS:405	Polymer Science Laboratory	
CHEM:499	Research Problems in Chemistry	1-9
or PLYS:499	Research Problems in Polymer Science	
Total Hours		7-15

## Physics Requirements

Code	Title	Hours
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		8

## Mathematics Requirements

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
Total Hours		15

## Communication

The School of Communication offers students a liberal arts education combined with professional and practical experience to meet the social, professional and personal challenges of the 21st century marketplace. Steeped in the tradition of free, accountable, and effective expression of thoughts and ideas, the broad-based curriculum equips students to think critically, write and speak eloquently, work in groups effectively, develop creatively, act ethically and interface proactively with converged media platforms.

Students choose from three academic concentrations: Strategic and Organizational Communication, Public Relations and Media Studies. Additionally, students are encouraged to participate in internships that lead to careers in media, business, sales and marketing, public relations, journalism and conference planning.

Additional information about the school, its faculty and its programs is available at <http://www.uakron.edu/schlcomm> (<http://www.uakron.edu/schlcomm/>)

Requirements for transferring into the School of Communication:

- Admission to the Buchtel College of Arts and Sciences and a 2.5 GPA or above

## Exit Requirement

To graduate with a degree from the School of Communication, a student must attain a minimum 2.0 GPA overall, a minimum 2.30 GPA for all courses taken in the School of Communication and have completed one of the following courses with a grade of C or better.

Code	Title	Hours
COMM:105 & COMM:106	Introduction to Public Speaking and Effective Oral Communication	6
ENGL:111	English Composition I	3
ENGL:112	English Composition II	3
ENGL:113	African American Language and Culture I: College Composition	3
or ENGL:114	African American Language and Culture II: College Composition	

- Business and Professional Communication and Leadership, Certificate (p. 103)
- Converged Media, Minor (p. 103)
- Interpersonal Group Communication, Minor (p. 104)
- Media Production, Minor (p. 104)
- Media Studies, BA (p. 105)
- News, Minor (p. 107)
- Organizational Communication, Minor (p. 108)
- Organizational Supervision, BS (p. 108)
- Professional Social Media, Certificate (p. 110)
- Public Communication, Minor (p. 111)
- Public Relations, BA (p. 111)
- Public Relations, Minor (p. 114)
- Strategic & Organizational Communication, BA (p. 114)
- Supervision and Management, Certificate (p. 117)

## Interdisciplinary Programs

- Applied Political Communication, Certificate (p. 331)

## School of Communication (COMM)

### COMM:101 Introduction to Communication (3 Credits)

Survey of the field of communication. Topics will focus on the history, as well as the theories, constructs, and career opportunities of all sub disciplines. (Formerly 7600:101)

### COMM:105 Introduction to Public Speaking (3 Credits)

Introduction to principles and practice of speaking by reading examples of speeches, studying techniques and methods employed and applying them in a variety of speaking situations. (Formerly 7600:105)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Speaking

### COMM:106 Effective Oral Communication (3 Credits)

Principles of communication in speaker-audience, group and informal settings, and application of the principles in speeches, group discussions and other oral and written assignments. (Formerly 7600:106)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Speaking

**COMM:107 Essentials of Management Technology (3 Credits)**

Survey of management principles for business and other organizations. Emphasizes the basic management functions including planning, organizing, staffing, influencing, and control. (Formerly 2420:103)

**COMM:108 Introduction to Business (3 Credits)**

Survey of business emphasizing the nature of business and including entrepreneurship concepts, form, marketing, management, human resources, financial resources and production. (Formerly 2420:104)

**COMM:117 Small Business Development (3 Credits)**

Prerequisite: COMM 211 with a grade of C or better or permission. Introduction to small business and entrepreneurship: opportunities and qualifications for establishing, financing, operating and developing managerial policies and procedures for small business (Formerly 2420:117)

**COMM:125 Essentials of Personal Finance (3 Credits)**

Consumer decision making including credit and budgets, time value of money, major purchases, insurance, investments, tax planning, retirement and estate planning. (Formerly 2420:125)

**COMM:133 Essentials of Marketing Technology (3 Credits)**

Survey of marketing including its environment, buyer behavior, target market selection, product decision, distribution decisions, promotion decisions, pricing decisions and marketing management. (Formerly 2520:101)

**COMM:140 Keyboarding (2 Credits)**

Fundamentals in the operation of the keyboard; application emphasis on individual student needs such as resumes, application letters and forms, term reports, abstracting, etc. (Formerly 2420:140)

**COMM:202 Elements of Human Resource Management (3 Credits)**

Prerequisite: COMM 107 with a grade of C or better. Provides students with an overview of human resource management functions. Includes planning, EEO/AA, selection, development, legal environment, compensation, labor relations, appraisal systems and career planning. (Formerly 2420:202)

**COMM:204 Services Marketing (3 Credits)**

Prerequisites: COMM 260 and COMM 219. Corequisite: COMM 205. Focuses on quality customer service and its role in marketing. Evaluation of customers' needs and expectations, interpretation of customer data and creation of service strategies. (Formerly 2520:204)

**COMM:205 Retailing Fundamentals (3 Credits)**

Presents basic principles and practices of retailing operations, including site selection, buying, pricing and promotion practices. Use is made of extensive projects and investigations and actual retail operations. (Formerly 2520:202)

**COMM:206 Retail Promotion & Advertising (3 Credits)**

Prerequisite: COMM 205 or permission. Studio course in retail display and promotion techniques. Window, interior and point of purchase categories; principles of design as applied to commercial art; function in visual design, elements of design, color theory, lettering, printing process, layout to camera-ready art. (Formerly 2520:206)

**COMM:209 Principles of Sales (3 Credits)**

Prerequisite: COMM 133 or permission. Study of basic principles of selling, emphasizing individual demonstrations and sales projects. Includes review of sales function as integral part of marketing process. (Formerly 2520:212)

**COMM:210 Multiplatform Production (3 Credits)**

A basic introduction to theory and practice of single camera, photography, graphic and web production. (Formerly 7600:210)

**COMM:211 Essentials of Financial Accounting (3 Credits)**

Explores accounting concepts, basic accounting cycle, financial statement preparation and interpretation. Coverage of revenues, receivables, inventory, long-term assets/liabilities, debt/equity financing and financial ratios. (Formerly 2420:211)

**COMM:212 Basic Accounting II (3 Credits)**

Prerequisite: COMM 211 with a grade of C or better. Accounting as it applies to partnerships and corporations. Includes stocks, bonds, cash flows, financial statement analysis, and specialized accounting software. (Formerly 2420:212)

**COMM:213 Essentials of Management Accounting (3 Credits)**

Prerequisite: COMM 211 with a grade of C or better. Study of the interpretation and use of accounting data by management in decision making and the planning and controlling of business activities. (Formerly 2420:213)

**COMM:214 Essentials of Intermediate Accounting (3 Credits)**

Prerequisite: COMM 212 with a grade of C or better. Study of development of financial accounting theory and its application to problems of financial statement generation, account valuation, analysis of working capital, and determination of net income. (Formerly 2420:214)

**COMM:215 Computer Applications for Accounting Cycles (3 Credits)**

Prerequisites: COMM 212, COMM 213, and COMM 270 all with grades of C or better. Develops the skills of computer accounting as used in today's marketplace through hands on experience with general ledger accounting software. (Formerly 2420:215)

**COMM:216 Survey of Cost Accounting (3 Credits)**

Prerequisite: COMM 213 with a grade of C or better. Provides student with conceptual understanding of how accounting information is developed and used for product costing, decision making and managerial planning and control. (Formerly 2420:216)

**COMM:217 Survey of Taxation (3 Credits)**

Survey course of basic tax concepts, research, planning, and preparation of returns for individuals. Federal, state and local taxes are discussed. (Formerly 2420:217)

**COMM:218 Automated Bookkeeping (2 Credits)**

Corequisite: COMM 212. Provides experience with accounting software packages to include the processing of general ledger, accounts receivable, accounts payable, and payroll transactions. (Formerly 2420:218)

**COMM:219 Introduction to Public Relations (3 Credits)**

Introduction to public relations is a survey course that provides students with foundational information related to the study and practice of public relations. (Formerly 7600:219)

**COMM:220 Applied Accounting (3 Credits)**

Prerequisites: COMM 212, COMM 213, and COMM 270 all with grades of C or better. An applied orientation focusing on all accounting functions through adjusted trial balance and basic payroll skills. Emphasis on skills required for the Certified Bookkeeping designation. (Formerly 2420:220)

**COMM:221 Entrepreneurship Projects (3 Credits)**

Prerequisites: COMM 107, COMM 108, COMM 117, COMM 212, COMM 243, and COMM 270 all with grades of C or better. Requires the student to research, design, and complete a comprehensive business plan which will become the blueprint for a new or existing business. (Formerly 2420:227)

**COMM:222 Marketing Projects (3 Credits)**

Prerequisite: COMM 260. Students will prepare marketing projects by applying knowledge and skills learned in previous marketing courses. (Formerly 2520:221)

**COMM:226 Interviewing (3 Credits)**

Study and practical application of selected interviewing concepts associated with job interviewing, journalistic interviewing, and life review interviewing. (Formerly 7600:226)

**COMM:227 Non-Verbal Communication (3 Credits)**

Focused study of the principal aspects of nonverbal communication in public, group and interpersonal settings. (Formerly 7600:227)

**COMM:228 ZTV (1 Credit)**

Participation in the operations of the University television station.

\*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:228)

**COMM:230 WZIP-FM (1 Credit)**

Participation in the operations of the University radio station. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:230)

**COMM:231 Forensics (1 Credit)**

Participation in the operations of the University forensics team. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:231)

**COMM:232 Buchtelite (1 Credit)**

Participation in the operations of the University newspaper. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:232)

**COMM:233 Tel-Buch (1 Credit)**

Participation in the operations of the University year book. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:233)

**COMM:240 Marketing Internship (3 Credits)**

Prerequisites: COMM 133, COMM 260, COMM 205, and COMM 219. On-the-job work experience in a marketing environment in which students apply learned skills and concepts to practical business situations. Periodic reports and projects required as appropriate. (Formerly 2520:240)

**COMM:243 Survey in Finance (3 Credits)**

Prerequisites: 2420:170 and COMM 211 with grades of C or better. Survey of field including instruments, procedures, practices and institutions. Emphasis on basic principles. (Formerly 2420:243)

**COMM:244 Business Management Accounting Internship (3 Credits)**

Prerequisites: [COMM 212 and COMM 213] or [COMM 215 and COMM 216] with grades of C or better. An accounting field experience exposing the student to the actual accounting environment and general workplace. (Formerly 2420:245)

**COMM:245 Argumentation (3 Credits)**

Study of process of developing, presenting and defending inferences and arguments in oral communication setting. Includes study and practice of evidence, reasoning, case construction, refutation and rebuttal. (Formerly 7600:245)

**COMM:246 Business Management Internship (3 Credits)**

Prerequisites: [COMM 107, COMM 108, COMM 212, COMM 280 all with grades of C or better], ENTRE 201, SOWK 230, and sophomore or greater standing. A management field experience exposing the student to the actual management environment and general workplace. (Formerly 2420:246)

**COMM:250 Problems in Business Management (3 Credits)**

Prerequisites: COMM 107, COMM 108, COMM 212, COMM 243, COMM 270, and COMM 133 all with grades of C or better. Capstone course studies the development of solutions and the formulation of policies to solve business problems, emphasizes case studies, group projects, oral and written presentations. (Formerly 2420:250)

**COMM:254 Sales Management Technology (3 Credits)**

Prerequisite: COMM 219. Process relating to the formulation, implementation, and control of a strategic sales program. Students will learn how to select, evaluate, and motivate a sales force. (Formerly 2520:254)

**COMM:260 Principles of Advertising (3 Credits)**

Prerequisite: COMM 133 or MKTG 205. Focuses on principles and functions of advertising, creation and evaluation of advertisements, research of target market, message selection strategy, and media placement options. (Formerly 2520:203)

**COMM:263 Professional Communications and Presentations (3 Credits)**

Application of the principles of communication in speeches, business presentations, group discussions, and business documents. (Formerly 2420:263)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Speaking

**COMM:270 Business Software Applications (3 Credits)**

Prerequisite: CISS 105; Wayne College students - COMM 125, 2540:241, and 2540:253. Use of business application software and critical thinking skills to solve business problems. Word processing, spreadsheets, database, presentation software, integration of applications, and the Internet. (Formerly 2420:270)

**COMM:274 Introduction to the Media Industries (3 Credits)**

An introduction to the media industries concentrating on industry structure and business models with a particular emphasis on media convergence and distribution. (Formerly 7600:274)

**COMM:280 Essentials of Business Law (3 Credits)**

History of the law and the judicial system, torts and criminal law affecting business, contracts with emphasis on sales under the UCC, and commercial paper. (Formerly 2420:280)

**COMM:290 Special Topics: Business Management Technology (1-3 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in business management technology. (May be repeated for a total of four credits) (Formerly 2420:290)

**COMM:300 Newswriting Across the Media (3 Credits)**

Prerequisite: completion of General Education English Composition Requirement with a grade of C or better or permission. Concentration on what constitutes news, legal and ethical aspects of what to print/broadcast and writing news stories for print and broadcast media. (Formerly 7600:300)

**COMM:301 Advanced Newswriting (3 Credits)**

Prerequisite: Admitted to a four year degree granting college and COMM 300. Advanced course in writing and editing news, features and analysis for print media. Behavioral approach to communication of information and ideas. (Formerly 7600:301)

**COMM:303 Public Relations Writing (3 Credits)**

Prerequisite or Corequisite: COMM 219. Introduction of writing skills required by public relations practitioners emphasizing different approaches for specific publics and specific media. (Formerly 7600:303)

**COMM:304 Information Gathering & Editing (3 Credits)**

Prerequisite: Ability to type. Editing stories and photographs and writing headlines for print and online. Gathering information from primary and secondary sources. (Formerly 7600:304)

**COMM:305 Communication Theory (3 Credits)**

Prerequisite: COMM 101. Examination of the theoretical foundations of the communication discipline. Historical roots, major theory building perspectives and a review of contemporary theories and applications in communication contexts. (Formerly 7600:305)

**COMM:307 Principles of Social Media (3 Credits)**

This course provides students with a thorough understanding of social media as it relates to the tools, history, theories, ethics and practice of communication. (Formerly 7600:209)

**COMM:309 Public Relations Publications (3 Credits)**

Preparation of publications used as communication tools in public relations, advertising and organizations. Emphasis upon design, layout and technology. (Formerly 7600:309)

**COMM:317 Topics in Media Production (3 Credits)**

Variable topics in media production including audio, video, digital. Repeatable with a change in topic, maximum 9 credits. (Formerly 7600:317)

**COMM:324 Interpersonal Communication (3 Credits)**

Theory and practice in interpersonal communication concepts and principles. Special topics in communication apprehension, assertive communication, communication dyads and triads, and transactional communication. (Formerly 7600:235)

**COMM:325 Intercultural Communication (3 Credits)**

Study of human communication processes between individuals in culturally diverse contexts, both domestically and internationally, with an emphasis on analysis and application. (Formerly 7600:325)

**Gen Ed:** - Domestic Diversity

**COMM:330 Principles of Organizational Supervision (3 Credits)**

Competencies required for successful transition from individual contributor to supervisor. Emphasis on working effectively with others and self-development as a leader. (Formerly 2420:300)

**COMM:331 Information Design (3 Credits)**

Prerequisites: [ENGL 111 and ENGL 112] or equivalent. Principles of visual rhetoric and practice in communicating with text and graphics. Examines the role of design in a variety of workplace communication documents. (Formerly 2420:301)

**COMM:333 Ethics and Law in Business (3 Credits)**

Prerequisite: Junior or greater standing. Workplace ethical principles and legal issues such as liability, safety, quality, honesty, and confidentiality. Case studies and projects explore global, legal, and technological issues affecting employee interaction in the workplace. (Formerly 2420:302)

**COMM:334 Leadership Principles & Practices (3 Credits)**

Pre/Corequisite: COMM 330. Contemporary perspectives and issues in leadership and supervision. Development of effective leadership characteristics. (Formerly 2420:310)

**COMM:335 Corporate Social Responsibility and Leadership (3 Credits)**

Pre/Corequisite: COMM 330 with a C or better. Theory and best practices in corporate social responsibility, community service and leadership in local, national and global settings. Identify leadership opportunities for future contributions. (Formerly 2420:311)

**COMM:336 Global Business Communication (3 Credits)**

Prerequisite: Completion of 48 credit hours. Emphasis on organizational and interpersonal communication needed in an integrated world economy. Provides an overview of business communication to effectively conduct global business and negotiations. (Formerly 2420:312)

**COMM:344 Small Group Communication (3 Credits)**

Prerequisite: Junior or higher standing. This course explores the dynamics of small group communication. Students will learn how to become effective members of groups by practicing course concepts and theories in assignments. (Formerly 7600:344)

**COMM:345 Advanced Presentational Communication (3 Credits)**

Prerequisite: COMM 105 or COMM 263. Continued development of audience analysis, research, style, and delivery to improve oral communication skills for a variety of civic and organizational purposes. (Formerly 7600:345)

**COMM:352 Persuasion (3 Credits)**

Emphasis on understanding persuasion theory and practice. Includes information analysis of motivational appeals and introduction to propaganda analysis. (Formerly 7600:252)

**COMM:355 Freedom of Speech (3 Credits)**

Discussion and analysis of the Constitution's free speech guarantee; contemporary issues in freedom of speech; role of the media in free speech issues. (Formerly 7600:355)

**COMM:356 Rhetorical Criticism (3 Credits)**

Prerequisite: COMM 360. Identifies principal textual and contextual elements of public discourse and presents various theories and models to be applied in studying rhetorical acts. (Formerly 7600:356)

**COMM:360 Theories of Rhetoric (3 Credits)**

Theories of Rhetoric exposes students to 2,000 years of thought on rhetoric and meaning. Students explore the relationship between knowledge, truth and rhetoric. (Formerly 7600:360)

**COMM:364 Legal Issues in Media (3 Credits)**

Concentration on government regulations and legal requirements in production of broadcasting, film, and print media. Particular emphasis on copyright. (Formerly 7600:284)

**COMM:368 Basic Audio & Video Editing (3 Credits)**

Prerequisite: Admitted to a four year degree granting college. A basic practical introduction to audio and video editing and the Avid Editing system in the MediaNet environment. (Formerly 7600:368)

**COMM:378 Topics in Media History (3 Credits)**

Prerequisite: Admitted to a four year degree granting college. In-depth study of topics in media history and genre. Repeatable with a change in topic (9 credits maximum). (Formerly 7600:378)

**COMM:384 Communication Research (3 Credits)**

Prerequisites: COMM 101 with a grade of C or better. Fundamental concepts of communication research methods, and the analysis, application, and interpretation of data in communication and media operations. (Formerly 7600:384)

**COMM:398 Honors Project Preparatory (1 Credit)**

Prerequisite: junior standing, honors students only. This course prepares honors students to begin work on their senior honors project. Students will learn how to do background research, literature reviews, work with human subjects, and School of Communication requirements. At the end of the semester, students will have their proposal ready for submission to the Honors College. (Formerly 7600:398)

**COMM:404 Public Relations Cases (3 Credits)**

Prerequisite or corequisite: COMM 219. Application of principles of public relations profession in an actual organizational setting. (Formerly 7600:404)

**COMM:405 Media Copywriting (3 Credits)**

Prerequisite: COMM 309. Selected communication theories and research techniques used to plan, write and analyze commercial messages. Emphasis will be placed on selection of audience, medium, appeal, writing style and evaluation of efforts. (Formerly 7600:405)

**COMM:406 Public Relations Theory (3 Credits)**

Prerequisite: COMM 219. Study and practical application of communication concepts, theories and skills relevant to public relations programs in businesses and nonprofit organizations. (Formerly 7600:406)

**COMM:408 Women, Minorities & News (3 Credits)**

Prerequisites: COMM 300 and admission to a four year degree granting college. From a professional journalism perspective, this course provides historical analysis of diversity in the newsroom and the news. Students produce new content that addresses diversity. (Formerly 7600:408)

**COMM:409 Public Relations Strategic Campaigns (3 Credits)**

Prerequisite: COMM 219. This course allows students to apply knowledge of public relations practice, history, theories, ethics and strategic planning to create real-world public relations campaigns. (Formerly 7600:409)

**COMM:429 Advanced Strategic Social Media (3 Credits)**

Prerequisite: COMM 307. Students will learn and apply knowledge of professional social media including theories, ethics, policy, and best practices to solve real-world social media problems. (Formerly 7600:429)

**COMM:430 Leading Project Teams (3 Credits)**

Prerequisite: COMM 334 with the grade of C or better. Examines and applies the operational and human aspects of project team management from conception to completion. (Formerly 2420:401)

**COMM:431 Operational Assessments and Improvements (3 Credits)**

Prerequisites: [STAT 250 or STAT 260] and COMM 334 with a grade of C or better. Methods for conducting business process assessments and evaluating results in organizations. (Formerly 2420:402)

**COMM:432 Human Resources Development (3 Credits)**

Prerequisite: COMM 334 with a grade of C or better. Overview of current theories and best practices in human capital development. (Formerly 2420:420)

**COMM:435 Organizational Communication (3 Credits)**

Prerequisite: COMM 101 or COMM 330. Overview of theories and approaches for understanding communication flow and practices in organizations, including interdepartmental, networks, superior-subordinate, formal and informal communication. (Formerly 7600:435)

**COMM:436 Analyzing Organizational Communication (3 Credits)**

Prerequisites: [COMM 384 or COMM 331] and COMM 435, or permission. Methodology for in-depth analysis and application of communication in organizations; team building; conflict management, communication flow. Individual and group projects; simulations. (Formerly 7600:436)

**COMM:437 Training Methods in Communication (3 Credits)**

Prerequisite: COMM 345 or COMM 435 or permission. Principles and concepts in the design and delivery of communication training programs; integration of theory and methodology; presentation skills; matching methods and learner needs. (Formerly 7600:437)

**COMM:438 Health Communication (3 Credits)**

Prerequisite: Admitted to a four year degree granting college. The course presents an overview of health communication theory and research issues in interpersonal, small group, organizational, public relations, and mass media contexts. (Formerly 7600:438)

**COMM:439 Independent Study: Communication (1-12 Credits)**

(May be repeated for a total of 12 credits) Prerequisites: Admitted to a four year degree granting college except CAST, permission of faculty. Directed independent readings, research, projects and productions. Written proposal must be submitted before permission is granted. Appropriate documentation of work required. (Formerly 7600:439)

**COMM:444 Communication & Conflict (3 Credits)**

Prerequisite: COMM 101 or COMM 330. Explores roles of communication & conflict in personal and work relationships. Emphasis placed on application of theories and strategies for conflict resolution from a communication perspective. (Formerly 7600:444)

**COMM:450 Special Topics in Communication (3 Credits)**

(May be repeated for a total of nine credits) Special interest topics in mass communication, journalism, or communication, supplementing courses listed in University Bulletin. See department for current listing of offerings. (Formerly 7600:450)

**COMM:457 Rhetoric in Contemporary Culture (3 Credits)**

Prerequisite: COMM 360 & COMM 356. Rhetoric in Contemporary Culture serves as an advanced course in rhetorical criticism. Students apply critical methods to contemporary issues surrounding political, popular, and vernacular discourses. (Formerly 7600:457)

**COMM:459 Leadership and Communication (3 Credits)**

Prerequisite: Admitted to a four year degree granting college except CAST. Theories of leadership and communication across public, organizational, small group, interpersonal, and political contexts. Assessments tools provided. Guest speakers. (Formerly 7600:459)

**COMM:468 Advanced Audio and Video Editing (3 Credits)**

Prerequisite: COMM 368. A study of film and video editing. It provides practical experience and exposure to the various creative approaches and techniques of film / video editing. (Formerly 7600:468)

**COMM:472 Video Production (3 Credits)**

Prerequisite or corequisite: COMM 368. Theory and practice of digital video; development of professional skills in lighting, use of lenses, visual composition and sound recording for Single Camera applications (Formerly 7600:372)

**COMM:474 Media Theory (3 Credits)**

Prerequisites: COMM 101. A review of mass communication theories and their applications in addressing major issues relevant to media content, media audience and media effects. (Formerly 7600:474)

**COMM:475 Political Communication (3 Credits)**

Students explore the relationship between politicians, citizens, and media. Topics include media coverage, campaign technologies, advertising, debates, engagement, rhetoric, and attitudes. (Formerly 7600:475)

**COMM:480 Communication Internship (3-6 Credits)**

Prerequisites: 24 credits in Communication, 2.3 GPA in Communication and permission. Supervised experience and on-the-job training. Written permission prior to the semester enrolled is necessary. Repeatable up to a maximum 6 credits. (Formerly 7600:480)

**COMM:481 Film as Art: An Introduction to the Film Form (3 Credits)**

A study of the role and function of Cinematography, Editing, Sound, and Mise-en-scene as they shape the meaning of the film, within the context of the traditional / non-traditional narratives and the documentary structure. (Formerly 7600:481)

**COMM:485 Honors Project in Communication (3 Credits)**

Prerequisites: COMM 398, approval of honors preceptor. Independent study project leading to completion of honors research, creative or service project. (Formerly 7600:485)

**COMM:486 Media Management & Leadership (3 Credits)**

Prerequisite: COMM 384. An intensive overview of media management and leadership principles and applications of these principles in addressing issues related to entrepreneurship, ethics, globalization and media convergence. (Formerly 7600:486)

**COMM:487 Advanced Topics in Media Writing (3 Credits)**

Prerequisite: COMM 300. Advanced study in media writing. Topics include: script writing, broadcast newswriting, new media writing, etc. Repeatable with a change in topic, maximum 12 credit hours. (Formerly 7600:487)

**COMM:490 Communication Workshop (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Admitted to a four year degree granting college. Group study or group projects investigating a particular phase of media not covered by other courses in curriculum. (Formerly 7600:490)

**COMM:498 Senior Seminar in Organizational Supervision (3 Credits)**

Prerequisite: COMM 431 with a grade of C or better. Integration and application of professional knowledge, skills, and technologies to organizational issues. (Formerly 2420:421)

**COMM:499 Capstone in Communication (3 Credits)**

Prerequisites: [COMM 101 or COMM 330] and [COMM 384 or COMM 331] and senior standing. Capstone in communication integrates theories, concepts, and skills: provides interdisciplinary work, and applied focus; and culminates in a project, paper, or production. Topics vary. (Formerly 7600:499)

## Business and Professional Communication and Leadership, Certificate

### Certificate in Business and Professional Communication and Leadership (202100CW)

The undergraduate certificate in Business and Professional Communication and Leadership is open to students of any major, as well as working professionals and serves as formal training in the areas of written, presentational, and leadership communication in the workplace. Students will refine their communication skills to be more polished communicators and leaders in organizational settings.

The following information has official approval of **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Workplace Communication" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		12
Total Hours		12

## Required Courses

Code	Title	Hours
BUSN:230	Business Communication	3
COMM:459	Leadership and Communication	3
or COMM:334	Leadership Principles & Practices	
COMM:435	Organizational Communication	3
COMM:345	Advanced Presentational Communication	3
or COMM:309	Public Relations Publications	
or COMM:429	Advanced Strategic Social Media	
or COMM:436	Analyzing Organizational Communication	
or COMM:437	Training Methods in Communication	
or ENGL:390	Professional Writing I	
Total Hours		12

## Converged Media, Minor

### Minor in Converged Media (C60110M)

Students will gain hands-on experience with emerging technology tools to become responsible media content developers and information brokers. Specifically, the Converged Media Minor (CM) will provide students with the knowledge and the skills to: (1) develop digital media literacy; (2) gather information and create content; (3) write for accuracy, thoroughness, authenticity, and efficiency; (4) design and distribute content for print, audio, video, and the web; and (5) apply media ethics.

**Program Contact**

Juan Contreras  
Professor of Practice  
JEC37@uakron.edu

The following information has official approval of the **School of Communication** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
COMM:307	Principles of Social Media	3
COMM:210	Multiplatform Production	3
COMM:300	Newsriting Across the Media	3
COMM:304	Information Gathering & Editing	3
COMM:317	Topics in Media Production <sup>1</sup>	3
COMM:317	Topics in Media Production <sup>1</sup>	3
Total Hours		18

<sup>1</sup> COMM:317 Topics in Media Production should be taken once for Studio and once for Audio (for a total of six credits).

## Interpersonal Group Communication, Minor

### Minor in Interpersonal/Group Communication (C60107M)

Students in the Interpersonal and Group Communication minor study how messages are created and delivered for maximum effectiveness both interpersonally and within a group setting. Like other Communication minors, 18 hours are required.

#### Program Contact

Dr. Mary Triece  
mtriece@uakron.edu  
330-972-6222

The following information has official approval of the **School of Communication** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Communication - Interpersonal/Group Communication" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Communication - Interpersonal/Group Communication may only be awarded at the time a student receives a Baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
COMM:101	Introduction to Communication	3
COMM:324	Interpersonal Communication	3

COMM:344	Small Group Communication	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 9 credits of the following (at least 3 credits must be 300/400 level):</b>		
COMM:226	Interviewing	
COMM:227	Non-Verbal Communication	
COMM:245	Argumentation	
COMM:352	Persuasion	
COMM:305	Communication Theory	
COMM:325	Intercultural Communication	
COMM:444	Communication & Conflict	
COMM:450	Special Topics in Communication <sup>1</sup>	
Total Hours		9

<sup>1</sup> Prior to enrolling in COMM:450 Special Topics in Communication, approval must be given by School Director.

## Media Production, Minor

### Minor in Media Production (C60105M)

#### Program Contact

Juan Contreras  
jec37@uakron.edu (pipps@uakron.edu)  
330-972-5870

The following information has official approval of the **School of Communication** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Communication - Media Production" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Communication - Media Productions may only be awarded at the time a student receives a Baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
COMM:368	Basic Audio & Video Editing	3
COMM:472	Video Production	3
COMM:481	Film as Art: An Introduction to the Film Form	3
Total Hours		9



## Electives

Code	Title	Hours
<b>Select 9 credits of the following:</b>		<b>9</b>
COMM:228	ZTV	
COMM:230	WZIP-FM	
COMM:274	Introduction to the Media Industries	
COMM:364	Legal Issues in Media	
COMM:317	Topics in Media Production	
COMM:468	Advanced Audio and Video Editing	
Total Hours		9

## Media Studies, BA

### Bachelor of Arts in Media Studies (C60104BA)

More on the Media Studies major (<https://www.uakron.edu/schlcomm/ugrad-programs/media-studies/>)

The University of Akron's media studies program prepares students with real experience for a career in video production, radio/television and journalism.

There is always more than meets the eye in the media industry, and our media studies program is no different. Student's will study every aspect of the media industry – from business, law and theory to writing for different media platforms and producing audio and video content.

#### Program Contact

Juan Contreras

jec37@uakron.edu (pipps@uakron.edu)

330-972-5870

The following information has official approval of **The School of Communication** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
College of Arts & Sciences Requirements		12-24
Communication Core		15
Media Studies Core		12
Media Studies Electives		9
School of Communication Elective		3
Minor Requirement		18
Additional Credits for Graduation *		17-5
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include either 1) the demonstration of ability to use another language by completion of the second year of a foreign language, or 2) the completion of a certificate program outside of the Communication department</b>		
<i>Foreign Language</i>		<b>14</b>
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		

SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	
-or-		
Certificate program <sup>1</sup>		12-24

<sup>1</sup> Please see your advisor for a list of available certificate programs

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Communication Core <sup>1</sup>

Code	Title	Hours
COMM:101	Introduction to Communication	3
COMM:210	Multiplatform Production	3
COMM:245	Argumentation	3
COMM:384	Communication Research	3
<i>Select one of the following:</i>		3
COMM:398	Honors Project Preparatory or COMM:48 Communication Internship or COMM:48 Honors Project in Communication or COMM:49 Capstone in Communication	
Total Hours		15

<sup>1</sup> Grade of C or better is required in Communication Core courses.

## Media Studies Core

Code	Title	Hours
COMM:274	Introduction to the Media Industries	3
COMM:364	Legal Issues in Media	3
COMM:300	Newswriting Across the Media	3
COMM:474	Media Theory	3
Total Hours		12

## Media Studies Electives

Code	Title	Hours
<b>Select nine credits of the following:</b>		
COMM:307	Principles of Social Media	
COMM:303	Public Relations Writing	
COMM:304	Information Gathering & Editing	
COMM:309	Public Relations Publications	
COMM:317	Topics in Media Production <sup>1</sup>	
COMM:345	Advanced Presentational Communication	
COMM:355	Freedom of Speech	
COMM:368	Basic Audio & Video Editing	
COMM:472	Video Production	
COMM:378	Topics in Media History <sup>1</sup>	
COMM:405	Media Copywriting	
COMM:408	Women, Minorities & News	

COMM:437	Training Methods in Communication	
COMM:468	Advanced Audio and Video Editing	
COMM:475	Political Communication	
COMM:481	Film as Art: An Introduction to the Film Form	
COMM:486	Media Management & Leadership	
COMM:487	Advanced Topics in Media Writing	

Total Hours 9

<sup>1</sup> May be repeated with a change in topic for a maximum 9 credit hours

## School of Communication Elective

Code	Title	Hours
<b>Select three credits from any COMM course:</b>		
COMM xxx <sup>1</sup>		3
COMM:325	Intercultural Communication (Recommended, not required)	
<i>The following courses DO NOT satisfy this requirement:</i>		
COMM:105	Introduction to Public Speaking	
COMM:106	Effective Oral Communication	
Total Hours		3

<sup>1</sup> Co-curricular activities (Forensics, WZIP, ZTV, Buchtelite) are limited to a total of three credits to be applied to the School of Communication elective.

## Minor Requirement

Code	Title	Hours
<b>Completion of a Minor or Second Major (not in Communication) or earned Associate Degree</b>		
Total Hours		18

## Recommended Sequence

<b>1st Year</b>		
<b>Fall Semester</b>		
COMM:101	Introduction to Communication <sup>5</sup>	3
ENGL:111	English Composition I	3
	Beginning Language 1 or Certificate Course I <sup>3</sup>	3-4
COMM:105 or COMM:106	Introduction to Public Speaking <sup>4,5</sup> or Effective Oral Communication	3
STAT:260 or STAT:250	Basic Statistics <sup>2</sup> or Statistics for Everyday Life	3-4
Hours		15-17
<b>Spring Semester</b>		
ENGL:112	English Composition II <sup>1</sup>	3
	Beginning Language II or Certificate Course II <sup>3</sup>	3-4
COMM:210	Multiplatform Production <sup>5</sup>	3
	Natural Science Requirement	3
	Social Science Requirement	3
Hours		15-16

**2nd Year****Fall Semester**

COMM:245	Argumentation <sup>5</sup>	3
	Natural Science with lab Requirement	4
	Intermediate Language I or Certificate Course III	3
	Social Science Requirement	3
COMM:325	Intercultural Communication <sup>6</sup>	3
Hours		16

**Spring Semester**

	Intermediate Language II or Certificate Course IV	3
COMM:274	Introduction to the Media Industries	3
	Arts/Humanities Requirement	3
COMM:364	Legal Issues in Media	3
	Global Diversity Requirement	3
Hours		15

**3rd Year****Fall Semester**

COMM:300	Newsriting Across the Media	3
COMM:384	Communication Research	3
	Media Studies Elective <sup>9</sup>	3
	Arts/Humanities Requirement	3
	Minor Requirement <sup>8</sup>	3
Hours		15

**Spring Semester**

	Arts/Humanities Requirement	3
	Minor Requirement <sup>8</sup>	3
	Minor Requirement <sup>8</sup>	3
	Global Diversity Requirement	3
	Certificate Course V or Upper Level Electives <sup>9</sup>	3
Hours		15

**4th Year****Fall Semester**

COMM:474	Media Theory	3
	Media Studies Elective <sup>9</sup>	3
	Minor Requirement <sup>8,9</sup>	3
	Minor Requirement <sup>8,9</sup>	3
	Certificate Course V or Upper Level Elective	3
Hours		15

**Spring Semester**

	Communication Elective <sup>6</sup>	3
	Complex Issues Requirement	3
	Minor Requirement <sup>8,9</sup>	3
	Certificate Course VI or Upper Level Elective	3
	Certificate Course VII or Upper Level Elective <sup>10</sup>	3

Select one of the following: 3

COMM:499	Capstone in Communication	
COMM:485	Honors Project in Communication	

COMM:480	Communication Internship	
Hours		18
Total Hours		124-127

- <sup>1</sup> ENGL:222 Technical Report Writing is an option for the second semester writing requirement.
- <sup>2</sup> Any course that meets the General Education Mathematics, Statistics, and Logic requirement may be taken.
- <sup>3</sup> Demonstration of ability to use another language by completion of the second year of a foreign language or sign language is required through coursework, AP, CLEP, or Oral Proficiency Interview. See your advisor for placement. Please note that all four semesters must be completed in the SAME language and it's recommended you begin your first language course as soon as possible.
- <sup>4</sup> COMM:105 Introduction to Public Speaking and COMM:106 Effective Oral Communication are the required courses to meet the General Education Speaking requirement.
- <sup>5</sup> A grade of "C" or better is required **in order to graduate**.
- <sup>6</sup> The School of Communication recommends COMM:325 Intercultural Communication to meet both a Communication elective and the Domestic Diversity course requirement.
- <sup>8</sup> A student must complete one of the following: (1) A university approved minor from the Undergraduate Bulletin, (2) an earned Associate's or Bachelor's degree, or (3) a second major not in Communication.
- <sup>9</sup> Degree requirements in Arts & Sciences require a minimum of 40 credits of 300/400 level courses (excluding workshops). In order to meet this requirement, courses in the minor area of study should be at the upper level. In order to assist students in graduating on time, only students in a degree granting college may take upper level (300/400) Communication courses. General electives can be any course not already required.
- <sup>10</sup> This course is not needed if a foreign language is taken instead of the a certificate program.

## News, Minor

### Minor in News (C60007M)

**Program Contact**

Juan Contreras  
 jec37@uakron.edu (pipps@uakron.edu)  
 330-972-5870

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The following courses constitute a "Minor in Communication - News" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Communication - News may only be awarded at the time a student receives a Baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
COMM:274	Introduction to the Media Industries	3
COMM:364	Legal Issues in Media	3
COMM:300	Newsriting Across the Media	3
COMM:304	Information Gathering & Editing	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select 6 credits of the following:</b>		<b>6</b>
COMM:317	Topics in Media Production <sup>1</sup>	
COMM:487	Advanced Topics in Media Writing <sup>1</sup>	
Total Hours		6

<sup>1</sup> COMM:317 Topics in Media Production and COMM:487 Advanced Topics in Media Writing may be repeated with a change of topic.

## Organizational Communication, Minor

### Minor in Organizational Communication (C60101M)

Students who minor in Organizational Communication learn about for-profit corporations and non-profit service groups by examining the communication that occurs both within and between these types of organizations. Like other Communication minors, 18 credits are required.

#### Program Contact

Dr. Mary Triece  
mtriece@uakron.edu  
330-972-6222

The following information has official approval of the **School of Communication** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Communication - Organizational Communication" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Communication - Organizational Communication may only be awarded at the time a student receives a Baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
COMM:101	Introduction to Communication	3
COMM:435	Organizational Communication	3
COMM:436	Analyzing Organizational Communication	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 9 credits of the following (at least 6 must be 300/400 level):</b>		<b>9</b>
COMM:324	Interpersonal Communication	
COMM:305	Communication Theory	
COMM:325	Intercultural Communication	
COMM:344	Small Group Communication	
COMM:345	Advanced Presentational Communication	
COMM:437	Training Methods in Communication	
COMM:444	Communication & Conflict	
COMM:450	Special Topics in Communication <sup>1</sup>	
Total Hours		9

<sup>1</sup> Prior to enrolling in COMM:450 Special Topics in Communication, approval must be given by School Director.

## Organizational Supervision, BS

### Bachelor of Science in Organizational Supervision (242010BS)

More on the Organizational Supervision major (<https://www.uakron.edu/schlcomm/ugrad-programs/bos/>)

#### Program Contact

Dr. Andrea Meluch  
Assistant Professor  
alm133@uakron.edu  
330-972-5189

#### Program Information

The baccalaureate program in organizational supervision is designed specifically for students with an earned associate degree from an accredited institution or junior standing (60+ credits) at The University of Akron. The program prepares students to gain communication and leadership skills necessary for professional and career advancement.

#### Requirements for Admission

The baccalaureate program in organizational supervision is an articulated degree (or degree completer) that is designed specifically for students

with an earned Associates Degree from an accredited institution or junior standing (60+ credits).

## Career Information

The program prepares students for positions at the supervisory level of large organizations, as small business owners/managers, or as team leaders for organizations. Graduates of the BOS degree might be able to get jobs as management analysts, human resources managers, sales managers, community service managers, and consultants in various areas of the business world, including human resources, training and sales, or to find work in the nonprofit sector or in government.

For additional information, please visit the Career Center at the Student Union, room 211 or visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) (<http://www.bls.gov>).

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Bachelor of Organizational Supervision Core	18
	Bachelor of Organizational Supervision Electives	15
	Additional Required Courses	7
	Additional Credits for Graduation *	46
	<b>Total Hours</b>	<b>120</b>

\* Baccalaureate degree require a total of 120 credits. The remainder of credits must come from a previously earned Associate degree or additional electives. Please meet with an academic advisor for more information.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		

<b>Academic Foundations</b>	<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Students must also complete a minimum of 34 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Bachelor of Organizational Supervision Core

Code	Title	Hours
COMM:330	Principles of Organizational Supervision	3
COMM:331	Information Design	3
COMM:334	Leadership Principles & Practices	3
	or COMM:459 Leadership and Communication	
COMM:325	Intercultural Communication	3
COMM:324	Interpersonal Communication	3
COMM:435	Organizational Communication	3
<b>Total Hours</b>		<b>18</b>

## Bachelor of Organizational Supervision Electives <sup>1</sup>

Code	Title	Hours
<b>15 credits from the list below:</b>		
COMM:333	Ethics and Law in Business	
COMM:335	Corporate Social Responsibility and Leadership	
COMM:430	Leading Project Teams	
COMM:431	Operational Assessments and Improvements	
COMM:432	Human Resources Development	
	or HRM:341 Human Resource Management	
COMM:344	Small Group Communication	

COMM:345	Advanced Presentational Communication	
COMM:355	Freedom of Speech	
COMM:360	Theories of Rhetoric	
COMM:436	Analyzing Organizational Communication	
COMM:437	Training Methods in Communication	
COMM:444	Communication & Conflict	
COMM:480	Communication Internship	
COMM:499	Capstone in Communication	
PSYC:380	Industrial/Organizational Psychology	
Total Hours		15

<sup>1</sup> Students will select five courses from the electives list to fulfill the 15-credit hour elective requirement.

## Additional Required Courses <sup>2</sup>

Code	Title	Hours
STAT:250	Statistics for Everyday Life	3-4
or STAT:260	Basic Statistics	
ECON:100	Introduction to Economics	3
Total Hours		6-7

<sup>2</sup> The statistics and economics courses fulfill Math and Social Sciences General Education requirements in addition to being required for the Bachelor of Organizational Supervision major.

## Recommended Sequence

### 3rd Year

Fall Semester	Hours	
STAT:250	Statistics for Everyday Life	3-4
or STAT:260	or Basic Statistics	
COMM:330	Principles of Organizational Supervision	3
COMM:331	Information Design	3
COMM:334	Leadership Principles & Practices	3
PSYC:100	Introduction to Psychology <sup>1,2</sup>	3
Hours		15-16

### Spring Semester

ECON:100	Introduction to Economics <sup>1,2</sup>	3
COMM:324	Interpersonal Communication	3
COMM:435	Organizational Communication	3
	BOS Elective	3
	BOS Elective	3
Hours		15

### 4th Year

Fall Semester	Hours	
COMM:325	Intercultural Communication <sup>1</sup>	3
or COMM:344	or Small Group Communication	
	BOS Elective	3
	BOS Elective	3
	BOS Elective	3
	Gen Ed requirement (if necessary) <sup>1</sup>	3
Hours		15

### Spring Semester

Complex Issues Requirement <sup>1</sup>	3
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General Education Requirement (if necessary) <sup>1</sup>	3	
General Education Requirement (if necessary) <sup>1</sup>	3	
General Education Requirement (if necessary) <sup>1</sup>	3	
General Education Requirement (if necessary) <sup>1</sup>	3	
Hours		15
Total Hours		60-61

<sup>1</sup> All students pursuing a bachelor's degree at the University of Akron must complete the General Education requirements. Students transferring to the Bachelors of Organizational Supervision who have not completed these requirements prior to acceptance into the program should meet with an academic advisor to review remaining courses.

<sup>2</sup> All students will be required to take ECON:100 Introduction to Economics and PSYC:100 Introduction to Psychology for their General Education - Social Science requirements.

### Program Notes:

- All students will be required to complete a minimum of 34 credit hours of 300/400 level courses.
- Students will be required to complete all necessary prerequisites and to meet the general education requirements for all baccalaureate students at The University of Akron. There are no exceptions to prerequisites for the BOS courses.
- If a student has not completed Statistics as part of an Associate degree or General Education requirements, student must take this course even if they have met the math requirement for the General Education requirements.
- Students in Junior standing (at least 60 credits) who have not earned an Associates degree will be required to complete an undergraduate certificate or minor towards completion in their BOS degree.
- A 2.0 GPA is required to graduate from the program.

## Professional Social Media, Certificate Certificate in Professional Social Media (C60108C)

The Professional Social Media Certificate is open to students of any major, as well as professionals. It serves as formal training and evidence of your preparation in the subject.

You will learn to generate content, use analytics to measure success, and create a complete social media campaign for a real client as your final project for the course, Advanced Strategic Social Media, giving you a hands-on experiential learning opportunity.

"The number of jobs that request or require skills and knowledge in social media is continuously growing, yet there are still very few educational credentials available to help students demonstrate a mastery of this expertise that organizations need. This certificate is a concrete way for current students and professionals already in the field to obtain formal training in social media, as well as gain evidence of their preparation."

Julie Cajigas, Associate Professor of Practice in the School of Communication

#### Program Contact

Julie A Cajigas  
Associate Professor of Practice,  
School of Communication  
330-972-6914  
julieca@uakron.edu

The following information has official approval of the **School of Communication** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Professional Social Media" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		12
Total Hours		12

## Required Courses

Code	Title	Hours
COMM:307	Principles of Social Media	3
COMM:210	Multiplatform Production	3
COMM:429	Advanced Strategic Social Media	3
COMM:487	Advanced Topics in Media Writing <sup>1</sup>	3
Total Hours		12

<sup>1</sup> In order to complete the certificate, COMM:487 Advanced Topics in Media Writing must be taken with the "New Media" course topic designation. The prerequisite will be waived for certificate students.

## Public Communication, Minor

### Minor in Public Communication (C60102M)

Building on the written and presentational skills offered in this minor, students who specialize in Public Communication often go on to graduate and/or law school. Like all the other Communication minors, 18 credits are required.

#### Program Contact

Dr. Mary Triece  
mtriece@uakron.edu  
330-972-6222

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The following courses constitute a "Minor in Communication - Public Communication" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Communication - Public Communication may only be awarded at the time a student receives a Baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
COMM:101	Introduction to Communication	3
COMM:305	Communication Theory	3
COMM:360	Theories of Rhetoric	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 9 credits of the following (at least 6 credits must be 300/400 level):</b>		<b>9</b>
COMM:231	Forensics <sup>1</sup>	
COMM:245	Argumentation	
COMM:352	Persuasion	
COMM:345	Advanced Presentational Communication	
COMM:355	Freedom of Speech	
COMM:356	Rhetorical Criticism	
COMM:360	Theories of Rhetoric	
COMM:444	Communication & Conflict	
COMM:450	Special Topics in Communication <sup>2</sup>	
COMM:457	Rhetoric in Contemporary Culture	
COMM:475	Political Communication	
Total Hours		9

<sup>1</sup> No more than 3 credits of COMM:231 Forensics will count toward this minor.

<sup>2</sup> Prior to enrolling in COMM:450 Special Topics in Communication, approval must be given by School Director.

## Public Relations, BA

### Bachelor of Arts in Public Relations (C60100BA)

More on the Public Relations major (<https://www.uakron.edu/schlcomm/ugrad-programs/public-relations/>)

Public Relations is all about building and maintaining beneficial relationships between organizations and their stakeholders and customers. The organization's message is the foundation of building

those relationships. As a PR representative, students will create and shape those messages between an organization and its public.

Our PR degree path provides students with real-world experiences through service-learning; exposure to people, organizations and scenarios that foster creativity; and helps develop the critical thinking skills students will use throughout their career in the industry

#### Program Contact

Julia Spiker  
Professor, School of Communication  
330-972-7198  
jspiker@uakron.edu (jec37@uakron.edu)

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	12-24
	Communication Core	15
	Public Relations Core	12
	Public Relations Electives	12
	Minor Requirement	18
	Additional Credits for Graduation *	17-5
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

**Breadth of Knowledge** **22**

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

#### Diversity

Domestic Diversity

Global Diversity

#### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

**Total Hours** **34**

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include either 1) the demonstration of ability to use another language by completion of the second year of a foreign language, or 2) the completion of a certificate program outside of the Communication department</b>		
	<i>Foreign Language</i>	<b>14</b>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	
	202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	
	<i>-or-</i>	
	<i>Certificate program</i> <sup>1</sup>	<b>12-24</b>

<sup>1</sup> Please see your advisor for a list of available certificate programs

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

## Communication Core<sup>1</sup>

Code	Title	Hours
COMM:101	Introduction to Communication	3
COMM:210	Multiplatform Production	3
COMM:245	Argumentation	3
COMM:384	Communication Research	3
	<i>Select one of the following:</i>	<b>3</b>
COMM:480	Communication Internship <sup>2</sup>	
	<i>-or-</i>	
COMM:485	Honors Project in Communication	



-or-

COMM:499	Capstone in Communication	
Total Hours		15

<sup>1</sup> Grade of C or better is required in Communication Core courses.

<sup>2</sup> Students must have 90 credits to qualify.

## Public Relation Core

Code	Title	Hours
COMM:219	Introduction to Public Relations	3
COMM:303	Public Relations Writing	3
COMM:404	Public Relations Cases	3
COMM:409	Public Relations Strategic Campaigns	3
Total Hours		12

## Public Relations Electives

Code	Title	Hours
<b>9 credits from the list below and 3 credits from any COMM course not included in the list:</b>		<b>12</b>
COMM:309	Public Relations Publications	
COMM:487	Advanced Topics in Media Writing (New Media Writing)	
COMM:406	Public Relations Theory	
COMM:429	Advanced Strategic Social Media	
COMM:450	Special Topics in Communication (Crisis Communication or Event Planning)	
<i>The following courses DO NOT satisfy this requirement:</i>		
COMM:105	Introduction to Public Speaking	
COMM:106	Effective Oral Communication	
Total Hours		12

<sup>1</sup> Co-curricular activities (Forensics, WZIP, ZTV, Buchtelite) are limited to a total of three credits to be applied to the Public Relations Electives.

## Minor Requirement

Code	Title	Hours
<b>Completion of a Minor or Second Major (not in Communication) or earned Associate Degree</b>		<b>18</b>
Total Hours		18

## Recommended Sequence

1st Year		
Fall Semester		Hours
COMM:101	Introduction to Communication <sup>5</sup>	3
ENGL:111	English Composition I	3
COMM:105	Introduction to Public Speaking <sup>4,5</sup>	3
or COMM:106	or Effective Oral Communication	
STAT:260	Basic Statistics <sup>2</sup>	3-4
or STAT:250	or Statistics for Everyday Life	
	Beginning Language I or Certificate Course <sup>1,3</sup>	3-4
Hours		15-17

### Spring Semester

ENGL:112	English Composition II <sup>1</sup>	3
COMM:210	Multiplatform Production <sup>5</sup>	3
	Beginning Language II or Certificate Course <sup>2,3</sup>	3-4
Natural Science Requirement		3
Social Science Requirement		3
Hours		15-16

### 2nd Year

#### Fall Semester

COMM:245	Argumentation <sup>5</sup>	3
COMM:325	Intercultural Communication <sup>6</sup>	3
Natural Science with lab Requirement		4
Intermediate Language I or Certificate Course 3		3
Social Science Requirement		3
Hours		16

#### Spring Semester

COMM:219	Introduction to Public Relations	3
Intermediate Language II or Certificate Course 4		3
Public Relations Elective <sup>7</sup>		3
Arts/Humanities Requirement		3
Global Diversity Requirement		3
Hours		15

### 3rd Year

#### Fall Semester

COMM:303	Public Relations Writing	3
COMM:384	Communication Research	3
Arts/Humanities Requirement		3
Public Relations Elective <sup>7</sup>		3
Minor Requirement <sup>8</sup>		3
Hours		15

#### Spring Semester

COMM:404	Public Relations Cases	3
Public Relations Elective <sup>7</sup>		3
Arts/Humanities Requirement		3
Minor Requirement <sup>8</sup>		3
Minor Requirement <sup>8</sup>		3
Hours		15

### 4th Year

#### Fall Semester

COMM:409	Public Relations Strategic Campaigns	3
Public Relations Elective <sup>7</sup>		3
Minor Requirement <sup>8,9</sup>		3
Minor Requirement <sup>8,9</sup>		3
Certificate Course 5 or Upper Level Elective		3
Hours		15

#### Spring Semester

Complex Issues Requirement		3
Minor Requirement <sup>8,9</sup>		3
Certificate Course 6 or Upper Level Elective		3

Certificate Course 7 or Upper Level Elective <sup>10</sup>	3
Select one of the following:	3
COMM:499 Capstone in Communication	
COMM:485 Honors Project in Communication	
COMM:480 Communication Internship	
Hours	15
Total Hours	121-124

- <sup>1</sup> ENGL:222 Technical Report Writing is an option for the second semester writing requirement.
- <sup>2</sup> Any course that meets the General Education Mathematics, Statistics, and Logic requirement may be taken.
- <sup>3</sup> Demonstration of ability to use another language by completion of the second year of a modern language or sign language is required through coursework, AP, CLEP, or Oral Proficiency Interview. See your advisor for placement. Please note that all four semesters must be completed in the SAME language and it's recommended you begin your first language course as soon as possible.
- <sup>4</sup> COMM:105 Introduction to Public Speaking and COMM:106 Effective Oral Communication are the required courses to meet the General Education Speaking requirement.
- <sup>5</sup> A grade of "C" or better is required **in order to graduate**.
- <sup>6</sup> The School of Communication recommends COMM:325 Intercultural Communication to meet both a Communication elective and the Domestic Diversity requirement.
- <sup>7</sup> Public Relations Electives: Complete 12 credits of coursework from COMM:209 Principles of Sales, COMM:309 Public Relations Publications, COMM:325 Intercultural Communication, COMM:405 Media Copywriting, COMM:406 Public Relations Theory, or any 7600 courses not included above and not including COMM 105 and COMM 106.
- <sup>8</sup> A student must complete one of the following: (1) A university approved minor from the Undergraduate Bulletin, (2) An earned Associate's or Bachelor's degree, (3) A second major not in Communication.
- <sup>9</sup> Degree requirements in Arts & Sciences require a minimum of 40 credits of 300/400 level courses (excluding workshops). In order to meet this requirement, courses in the minor area of study should be at the upper level. In order to assist students in graduating on time, only students in a degree granting college may take upper level (300/400) Communication courses. General electives can be any course not already required.
- <sup>10</sup> This course is not needed if a modern language is taken instead of the a certificate program.

## Public Relations, Minor

### Minor in Public Relations (C60100M)

#### Program Contact

Dr. Julia Spiker  
jspiker@uakron.edu  
330-972-7198

The following information has official approval of the **School of Communication** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number

of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Communication - Public Relations" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Communication - Public Relations may only be awarded at the time a student receives a Baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

## Required Courses

Code	Title	Hours
COMM:219	Introduction to Public Relations	3
COMM:406	Public Relations Theory	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 12 credits of the following:</b>		<b>12</b>
COMM:307	Principles of Social Media	
COMM:303	Public Relations Writing	
COMM:309	Public Relations Publications	
COMM:404	Public Relations Cases	
COMM:409	Public Relations Strategic Campaigns	
COMM:450	Special Topics in Communication <sup>1</sup>	
Total Hours		12

- <sup>1</sup> COMM:450 Special Topics in Communication needs to be in Public Relations.

## Strategic & Organizational Communication, BA

### Bachelor of Arts in Strategic & Organizational Communication (C60101BA)

More on the Strategic & Organizational Communication major (<https://www.uakron.edu/schlcomm/ugrad-programs/strategic-organization/>)

UA's strategic and organizational communication program prepares students with the knowledge and skill needed to develop, evaluate and effectively communicate messages in contexts ranging from interpersonal relationships, business applications, public campaigns, advocacy and the law.

Our goal is for students to understand how the broad field of communication impacts organizational success and to learn how to apply technology effectively in communicating with organizations.

**Program Contact**

Heather L. Walter  
 Director & Professor, School of Communication  
 330-972-6486  
 hlwalter@uakron.edu (jec37@uakron.edu)

The following information has official approval of **The School of Communication** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	12-24
	Communication Core	15
	Strategic & Organizational Communication Core	12
	Strategic & Organizational Communication Electives	12
	Minor Requirement	18
	Additional Credits for Graduation *	17-5
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	

Diversity	
	Domestic Diversity
	Global Diversity
Integrated and Applied Learning	
<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society
	Capstone
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include either 1) the demonstration of ability to use another language by completion of the second year of a foreign language, or 2) the completion of a certificate program outside of the Communication department</b>		
<i>Foreign Language</i>		<b>14</b>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	
	202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	
	-or-	
<i>Certificate program</i> <sup>1</sup>		<b>12-24</b>

<sup>1</sup> Please see your advisor for a list of available certificate programs

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

## Communication Core<sup>1</sup>

Code	Title	Hours
COMM:101	Introduction to Communication	3
COMM:210	Multiplatform Production	3
COMM:245	Argumentation	3
COMM:384	Communication Research	3
<i>Select one of the following:</i>		<b>3</b>
COMM:480	Communication Internship <sup>2</sup>	
	-or-	
COMM:485	Honors Project in Communication	
	-or-	
COMM:499	Capstone in Communication	
<b>Total Hours</b>		<b>15</b>

<sup>1</sup> Grade of C or better is required in Communication Core courses.

<sup>2</sup> Students must have 90 credits to qualify.

## Strategic & Organizational Communication Core

Code	Title	Hours
COMM:324	Interpersonal Communication	3
COMM:305	Communication Theory	3
COMM:360	Theories of Rhetoric	3
COMM:435	Organizational Communication	3
Total Hours		12

## Strategic & Organizational Communication Electives

Code	Title	Hours
<b>12 credits from the list below or any COMM courses not included above:</b>		<b>12</b>
COMM:226	Interviewing	
COMM:227	Non-Verbal Communication	
COMM:352	Persuasion	
COMM:325	Intercultural Communication	
COMM:344	Small Group Communication	
COMM:345	Advanced Presentational Communication	
COMM:355	Freedom of Speech	
COMM:356	Rhetorical Criticism	
COMM:436	Analyzing Organizational Communication	
COMM:437	Training Methods in Communication	
COMM:438	Health Communication	
COMM:444	Communication & Conflict	
COMM:475	Political Communication	
COMM xxx <sup>1</sup>		
<i>The following courses DO NOT satisfy this requirement:</i>		
COMM:105	Introduction to Public Speaking	
COMM:106	Effective Oral Communication	
Total Hours		12

<sup>1</sup> Co-curricular activities (Forensics, WZIP, ZTV, Buchtelite) are limited to a total of three credits to be applied to the Strategic & Organizational Communication Electives.

## Minor Requirement

Code	Title	Hours
<b>Completion of a Minor or Second Major (not in Communication) or earned Associate Degree</b>		<b>18</b>
Total Hours		18

## Recommended Sequence

1st Year		
Fall Semester		Hours
ENGL:111	English Composition I	3
COMM:101	Introduction to Communication <sup>5</sup>	3
COMM:105	Introduction to Public Speaking <sup>4,5</sup>	3
or COMM:106	or Effective Oral Communication	
	Beginning Language I or Certificate Course I <sup>3</sup>	3-4

STAT:260	Basic Statistics <sup>2</sup>	3-4
or STAT:250	or Statistics for Everyday Life	
Hours		15-17

Spring Semester		
ENGL:112	English Composition II <sup>1</sup>	3
COMM:210	Multiplatform Production <sup>5</sup>	3
	Beginning Language II or Certificate Course II <sup>3</sup>	3-4
	Natural Science Requirement	3
	Social Science Requirement	3
Hours		15-16

2nd Year		
Fall Semester		
COMM:245	Argumentation <sup>5</sup>	3
COMM:325	Intercultural Communication <sup>6</sup>	3
	Natural Science with lab Requirement	4
	Intermediate Language I or Certificate Course III	3
	Social Science Requirement	3
Hours		16

Spring Semester		
COMM:324	Interpersonal Communication	3
COMM:360	Theories of Rhetoric	3
SLPA:222	Survey of Deaf Culture in America (Sign Language Students only) <sup>3</sup>	2
	Intermediate Language II or Certificate Course IV	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
Hours		17

3rd Year		
Fall Semester		
COMM:384	Communication Research	3
COMM:305	Communication Theory	3
	Strat/Org Communication Elective <sup>6</sup>	3
	Minor Requirement <sup>8</sup>	3
	Arts/Humanities Requirement	3
Hours		15

Spring Semester		
	Strat/Org Communication Elective <sup>6</sup>	3
	Minor Requirement <sup>8</sup>	3
	Minor Requirement <sup>8</sup>	3
	Complex Issues Requirement	3
	Arts/Humanities Requirement	3
Hours		15

4th Year		
Fall Semester		
COMM:435	Organizational Communication	3
	Strat/Org Communication Elective <sup>6</sup>	3
	Minor Requirement <sup>8,9</sup>	3
	Minor Requirement <sup>8,9</sup>	3
	Certificate Course V or Upper Level Elective	3
Hours		15

**Spring Semester**

Strat/Org Communication Elective <sup>6</sup>	3
Select one of the following:	3
COMM:499 Capstone in Communication	
COMM:485 Honors Project in Communication	
COMM:480 Communication Internship	
Minor Requirement <sup>8,9</sup>	3
Certificate Course VI or Upper Level Elective	3
Certificate Course VII or Upper Level Elective <sup>10</sup>	3
<b>Hours</b>	<b>15</b>
<b>Total Hours</b>	<b>123-126</b>

- <sup>1</sup> ENGL:222 Technical Report Writing is an option for the second semester writing requirement.
- <sup>2</sup> Any course that meets the General Education Mathematics, Statistics, and Logic requirement may be taken.
- <sup>3</sup> Demonstration of ability to use another language by completion of the second year of a foreign language or sign language is required through coursework, AP, CLEP, or Oral Proficiency Interview. See your advisor for placement. Please note that all four semesters must be completed in the SAME language and it's recommended you begin your first language course as soon as possible.
- <sup>4</sup> COMM:105 Introduction to Public Speaking and COMM:106 Effective Oral Communication are the required courses to meet the General Education Speaking requirement.
- <sup>5</sup> A grade of "C" or better is required **in order to graduate**.
- <sup>6</sup> The School of Communication recommends COMM:325 Intercultural Communication to meet both a Communication elective and the Domestic Diversity course requirement.
- <sup>8</sup> A student must complete one of the following: (1) A university approved minor from the Undergraduate Bulletin, (2) an earned Associate's or Bachelor's degree, or (3) a second major not in Communication.
- <sup>9</sup> Degree requirements in Arts & Sciences require a minimum of 40 credits of 300/400 level courses (excluding workshops). In order to meet this requirement, courses in the minor area of study should be at the upper level. In order to assist students in graduating on time, only students in a degree granting college may take upper level (300/400) Communication courses. General electives can be any course not already required.
- <sup>10</sup> This course is not needed if a foreign language is taken instead of the a certificate program.

## Supervision and Management, Certificate

### Certificate in Supervision & Management (242303C)

#### \*Admission to program has been suspended\*

The Supervision and Management certificate is aimed at providing knowledge and skills to the new and existing supervisor as well as to the individual who aspires to a supervisory position.

#### Program Contact

Heather L. Walter  
 Director & Associate Professor, School of Communication  
 330-972-6486  
 hlwalter@uakron.edu (jec37@uakron.edu)

The following information has official approval of the **School of Communication** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Supervision and Management" and must be completed with a minimum grade point average of 2.5 overall for the certificate to be noted on the student's record. This certificate may be earned independent of earning a degree.

## Summary

Code	Title	Hours
	Business Management Skills	9
	Electives	5
	<b>Total Hours</b>	<b>14</b>

## Business Management Skills

Code	Title	Hours
	<b>Select 9 credits minimum of the following:</b>	<b>9</b>
COMM:107	Essentials of Management Technology	
COMM:108	Introduction to Business	
COMM:202	Elements of Human Resource Management	
COMM:330	Principles of Organizational Supervision	
AMET:332	Management of Technology Based Operations	
AMET:100	Basic Principles of Manufacturing Management	
AMET:232	Labor Management Relations	
	<b>Total Hours</b>	<b>9</b>

## Electives

Code	Title	Hours
	<b>Select 5 credits of the following:</b>	<b>5</b>
ENGL:224	Writing for Advertising	
ENGL:325	Signs of Professional Writing	
MATH:345	Technical Data Analysis	
COMM:270	Business Software Applications	
COMM:211	Essentials of Financial Accounting	
MCET:310	Economics of Technology	
AMET:241	Introduction to Quality Assurance	
PHIL:241	Technology & Human Values	
SOCIO:243	Contemporary Global Issues	
SOWK:230	Human Relations	
xxxx xxx	Other Supervision/Management related courses approved by faculty of School of Communication	
	<b>Total Hours</b>	<b>5</b>

## Criminal Justice Studies

The Criminal Justice program develops critical thinking, problem solving techniques, effective communications and the ability to use technology while examining crime and the methods used to prevent it, as well as investigate and punish those who violate the law. It provides a professional perspective of the Criminal Justice field, including policing, corrections and security administration.

- Corrections, Certificate (p. 119)
- Corrections, Minor (p. 120)
- Criminal Intelligence Analysis, BS (p. 120)
- Criminal Justice Studies, AAS (p. 121)
- Criminology & Criminal Justice, BS (p. 122)
- Forensic Psychology, Minor (p. 125)
- Forensic Studies, Minor (p. 125)
- Forensic Study of Behaviors, Certificate (p. 126)
- Law Enforcement, Minor (p. 126)

## Criminal Justice Studies (CRJU)

### CRJU:100 Introduction to Criminal Justice (3 Credits)

Overview of criminal justice system, its history, development and evolution within the United States including subsystems of police, courts, corrections. Constitutional limitations, current criminal justice practices human relations, professionalization, prevention. (Formerly 3800:100)

### CRJU:101 Introduction to Security Administration Technology (3 Credits)

Introduces fundamentals such as equipment, technology, design theories, management practices, trends, concerns, and issues in security administration. (Formerly 3800:101)

### CRJU:102 Principles of Criminal Law (3 Credits)

Prerequisite: CRJU 100. This course examines the central principles of criminal law, including its history, philosophy, the elements of major crimes and criminal defenses. (Formerly 3800:102)

### CRJU:103 Introduction to Corrections (3 Credits)

Prerequisite: CRJU 100. Introduction to history and goals of institutional and community corrections. (Formerly 3800:103)

### CRJU:104 Evidence & Criminal Legal Process (3 Credits)

Prerequisite: CRJU 100. Study of evidence law, constitutional perspectives and law enforcement officer's relationship thereto. Court procedures from arrest to incarceration. (Formerly 3800:104)

### CRJU:105 Introduction to Police Studies (3 Credits)

Prerequisite: CRJU 100. Provides a foundation for understanding police role, structure, and function in American society at the local, state, and federal levels. (Formerly 3800:105)

### CRJU:106 Juvenile Justice Process (3 Credits)

Prerequisite: CRJU 100. Examination of juvenile justice system, functions of its various components; adolescent subculture, legislation, causative factors, prevention and treatment methodologies and programs. (Formerly 3800:106)

### CRJU:120 Crime Prevention: Theory, Practice, and Management (3 Credits)

Examines contemporary crime prevention and security strategies used in target hardening. Central theme is the use of community resources to prevent crime. (Formerly 3800:120)

### CRJU:224 Profiling Serial Killers (3 Credits)

Prerequisite: CRJU 100. Introduction to the theories, analyses, and methodology used in profiling serial killers. Actual serial profiles and paradigms of crime scene analyses also examined. (Formerly 3800:224)

### CRJU:225 The Police Experience (3 Credits)

Prerequisites: CRJU 100 and permission. Completion (C or better) and CRJU 100 qualifies a commissioned police officer to test out of certain courses (see adviser). Academic refresher course of basic police academy. (Formerly 3800:225)

### CRJU:226 Interviews, Interrogations, and Hostage Negotiations (3 Credits)

Prerequisite: CRJU 100. An overview of the legal, theoretical, and applied aspects of conducting interviews, interrogations, and hostage negotiations within the field of law enforcement. (Formerly 3800:226)

### CRJU:231 Physical Security: Systems, Design, and Control (3 Credits)

Topics include: controlling and monitoring the access of persons and vehicles, prevention and detection of unauthorized intrusions and surveillance, and safeguarding key assets. (Formerly 3800:231)

### CRJU:232 Legal Issues in Security Administration (3 Credits)

Survey of laws applicable to the security administration function including tort, labor, employment, unemployment, workers' compensation, contract, insurance, cyber, criminal and constitutional law. (Formerly 3800:232)

### CRJU:233 Security Investigations: Principles and Practice (3 Credits)

Overview of investigative methods employed by the security manager. Students will examine legal and ethical duties and issues related to investigation. (Formerly 3800:233)

### CRJU:234 Computer and Information Security (3 Credits)

Examines practical applications of effective information security measures and legal, ethical and privacy issues concerning the storage and use of information in society. (Formerly 3800:234)

### CRJU:235 School Crime and Violence Prevention (3 Credits)

Prerequisites: CRJU 101, CRJU 120. Examines the nature and extent of crime and deviance in American schools. Particular focus is on the use of a systems approach to prevent crime. (Formerly 3800:235)

### CRJU:240 Vice & Organized Crime (3 Credits)

Prerequisites: CRJU 100 and permission. An overview of organizations operating nationally and internationally in a variety of criminal activities with a particular emphasis on narcotics trafficking. (Formerly 3800:240)

### CRJU:245 Homeland Security: Principles and Practice (3 Credits)

Overview of fundamental homeland security concepts and issues such as: intelligence, critical infrastructure protection, hazards, strategy, policy, risk, organizational design and leadership. (Formerly 3800:245)

### CRJU:251 Criminal Investigation (3 Credits)

Prerequisite: CRJU 100. The course provides the student with fundamental investigative skills and the ability to manage a criminal case from initiation through conclusion. (Formerly 3800:251)

### CRJU:253 Basic Forensic Methods (3 Credits)

Introduction to the science, technology and application of forensic methods in the investigation of crime. (Formerly 3800:253)

### CRJU:255 Introduction to Forensic Investigation (3 Credits)

Prerequisite: CRJU 100. This course is designed to introduce the student to the field of forensic science. The emphasis will be on skills and techniques of evidence evaluation. (Formerly 3800:255)

**CRJU:270 Community Corrections (3 Credits)**

Prerequisite: CRJU 100. Examines the corrections component of the criminal justice system. Special focus on the development and use of probation, parole, and other alternative forms of sentencing. (Formerly 3800:270)

**CRJU:275 Legal Aspects of Corrections (3 Credits)**

Examination of the influence of the legal system on corrections, especially United States Supreme Court decisions. (Formerly 3800:275)

**CRJU:286 Courtroom Communication (3 Credits)**

Prerequisite: CRJU 100. Witnessing studies the trial process, emphasizing role of witnesses. Effective communication to juries, applicable evidentiary rules and preparation techniques are taught, preparing students for direct and cross-examination. (Formerly 3800:286)

**CRJU:287 The Legal System and Psychology (3 Credits)**

Prerequisite: CRJU 100. Examination of various areas where law and psychology interface, particularly in criminal cases by examining the expanding role of psychology in justice system and the courtroom. (Formerly 3800:287)

**CRJU:292 Special Topic: Criminal Justice (1-4 Credits)**

(May be repeated for a total of six credits). Prerequisite: Permission. Workshops and special programs in selected areas of criminal justice such as community relations, crime statistics, ethics, survival. (Formerly 3800:292)

**CRJU:296 Current Topics in Criminal Justice (1-3 Credits)**

Prerequisite: CRJU 100. A variety of course topics on current subjects relative to law enforcement and the Criminal Justice System. May be repeated for up to 12 credits. (Formerly 3800:296)

**CRJU:297 Independent Study: Criminal Justice (1-3 Credits)**

Prerequisite: CRJU 100 and permission. Selected topics and special areas of study in Criminal Justice Technology under the supervision of a selected faculty member with whom specific arrangements have been made. (Formerly 3800:297)

**CRJU:298 Applied Ethics in Criminal Justice (3 Credits)**

Prerequisite: CRJU 100. This course deals with ethical considerations which confront justice practitioners and the legal ramifications of misconduct. (Formerly 3800:298)

**CRJU:302 Theory of Criminal Law (3 Credits)**

Prerequisite: CRJU 102. Criminal law is built on a number of core issues. This course examines the principles and doctrines that shape and limit criminal liability and punishment. (Formerly 3800:302)

**CRJU:305 Policing Administration and Management (3 Credits)**

This course prepares students for promotion through the ranks of policing organizations, covering issues of interest to first-line supervisors and mid-level managers. (Formerly 3800:305)

**CRJU:307 Foundations of Crime Analysis (3 Credits)**

Introduction to the profession of crime analysis. Provides an overview of crime analysis techniques. (Formerly 3800:307)

**CRJU:325 Information Privacy (3 Credits)**

This course examines the origins, development and scope of individual control over, or government regulation of, personal information. (Formerly 3800:325)

**CRJU:386 Courtroom Proceedings and Testimony (3 Credits)**

All criminal justice professionals will appear as a witness at some point in their career. This course examines the courtroom process and how to effectively prepare and present testimony before a judge or jury. (Formerly 3800:386)

**CRJU:398 Police Accountability and Risk Management (3 Credits)**

This course focuses on building intelligent and resilient policing organizations that are structured to prevent officer misconduct, hold officers accountable when prevention efforts fail, and support both officer and community justice and wellness. (Formerly 3800:398)

**CRJU:405 Policing Theory and Strategy (3 Credits)**

Students will use social science theory and methods to evaluate police officers, practices and organizations. (Formerly 3800:405)

**CRJU:407 Advanced Crime Analysis (3 Credits)**

Prerequisite: CRJU 307. Introduction to advanced concepts and techniques for all major types of crime analysis: tactical, strategic, operations, administrative, intelligence, and investigative. (Formerly 3800:407)

**CRJU:457 Crime Analysis Applications (3 Credits)**

Prerequisites: CRJU 307 and CRJU 407. Students apply theories, strategies, techniques, and methods with the breadth and quality of work expected of crime analysis professionals. Students should complete all technology core requirements for the Bachelor of Science degree in Criminal Intelligence Analysis before attempting this course. (Formerly 3800:457)

**CRJU:465 Crisis & Trauma: Assessments & Interventions (3 Credits)**

Introduction to the stressors and emotions of dealing with people in crisis situations. Intervention, assessment and prevention strategies to help people in traumatic situations. (Formerly 3800:465)

**CRJU:480 Special Topics in Criminal Justice (1-3 Credits)**

The exact topic for this course will vary each semester. It will cover relevant topics in policing, courts, corrections, or criminology. (Formerly 3800:480)

**CRJU:497 Independent Study and Research (1-3 Credits)**

Prerequisite: Permission of Department. This course allows students to explore a topic of interest in criminal justice with the guidance of a faculty member. (Formerly 3800:497)

## Corrections, Certificate

### Certificate in Corrections (380011C)

**\*Admission to this program has been suspended\***

This certificate introduces the student to a variety of current issues in corrections. This certificate may be earned independent of earning a degree.

**Program Contact**

*Dr. David Licate*

*Professor and Program Coordinator for Criminal Justice Studies*

*330-972-7392*

*licate@uakron.edu*

The following information has official approval of the **Department of Criminal Justice Studies** and **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Criminal Justice Studies - Corrections" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
SOWK:255	Effective Workplace Relationships	3
CRJU:100	Introduction to Criminal Justice	3
CRJU:103	Introduction to Corrections	3
CRJU:270	Community Corrections	3
CRJU:275	Legal Aspects of Corrections	3
SOWK:269	Criminal Justice & Addiction	3
Total Hours		18

## Corrections, Minor

### Minor in Corrections (380011M)

**\*Admission to this program has been suspended\***

#### Program Contact

Dr. David Licate

Professor and Program Coordinator for Criminal Studies

330-972-7392

licate@uakron.edu

The following information has official approval of the **Department of Criminal Justice Studies** and **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Corrections" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
SOWK:255	Effective Workplace Relationships	3
CRJU:100	Introduction to Criminal Justice	3
CRJU:103	Introduction to Corrections	3
CRJU:270	Community Corrections	3
CRJU:275	Legal Aspects of Corrections	3
SOWK:269	Criminal Justice & Addiction	3
Total Hours		18

## Criminal Intelligence Analysis, BS

### Bachelor of Science in Criminal Intelligence Analysis (380002BS)

More on the Criminal Intelligence Analysis major (<https://www.uakron.edu/ccj/criminal-intelligence-analysis/>)

The following information has official approval of **The Department of Criminal Justice Studies** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Foundation Requirements		24
Core Requirement		18-21
Technology Core Requirements		24
Foreign Culture		6
Additional Credits for Graduation *		14-11
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		



Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## College of Arts & Sciences Requirement

Code	Title	Hours
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Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Foundation Requirements

Code	Title	Hours
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### Part I

POLIT:100	Government & Politics in the United States	3
POLIT:480	Policy Problems in Political Science (varies exp-Policy Prob in Criminal Justice)	3
CRJU:100	Introduction to Criminal Justice	3
CRJU:105	Introduction to Police Studies	3
SOCIO:100	Introduction to Sociology	3
SOCIO:330	Criminology	3
SOCIO:433	Sociology of Deviant Behavior	3

### Part II

POLIT:301 or SOCIO:301	Introduction to Political Research Social Research Design	3
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Total Hours	24
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## Core Requirement

Code	Title	Hours
CRJU:307	Foundations of Crime Analysis	3
CRJU:405	Policing Theory and Strategy	3
CRJU:407	Advanced Crime Analysis	3
CRJU:457	Crime Analysis Applications	3
SOCIO:302	Data Analysis	3
SOCIO:401 or POLIT:401 or GEOG:483	Advanced Topics in Research Methods Advanced Topics in Research Methods Spatial Analysis	3-6

Total Hours	18-21
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## Technology Core Requirements

Code	Title	Hours
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### Computer Information Systems

12

CISS:105	Introduction to Computers and Application Software	
CISS:121	Introduction of Logic/Programming	
CISS:145	Introduction to Unix/Linux	
CISS:180	Introduction to Database Management	

<b>Geographic Information Sciences</b> <sup>1</sup>	<b>12</b>
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Select one of the following sequences:

SURV Sequence	
SURV:105	Introduction to Geographic & Land Information Systems
SURV:201	Intermediate Geographic and Land Information Systems
SURV:205	Building Geodatabases
2985:210	Geographic and Land Information Systems Project
GEOG Sequence	
GEOG:405	Geographic Information Systems
GEOG:407	Advanced Geographic Information Systems
GEOG:444	Applications In Cartography & Geographic Information Systems
GEOG:445	GIS Database Design
Total Hours	24

<sup>1</sup> All classes must be taken in same sequence.

## Foreign Culture

Code	Title	Hours
<b>Select at least 6 credits</b> <sup>1</sup>		<b>6</b>
Total Hours		6

<sup>1</sup> At least six credits of coursework which will introduce the student to a foreign culture. Such courses shall be selected from the department approved list.

## Criminal Justice Studies, AAS

### Associate of Applied Science in Criminal Justice Studies (380016AAS)

More on the Criminal Justice Studies major (<https://www.uakron.edu/ccj/>)

## Program Contact

Stephanie Yuhas, JD  
Criminal Justice Studies Department  
330-972-7768  
[syuhhas@uakron.edu](mailto:syuhhas@uakron.edu) ([syuhhas@uakron.edu](mailto:syuhhas@uakron.edu))

## Program Information

The Criminal Justice Studies Associate of Arts degree provides a core foundation in policing, courts, law, and corrections for students new to the field, as well as for those employed as criminal justice professionals. The program features general education courses and a wide variety of electives allowing students to tailor the degree to a specific career path or interest.

## Career Information

- Police Officer - Additional training is required. See your advisor for more information.
- Court Services Officer - also referred to as bailiffs, court services officers provide police services to the courts. They handle security issues and physical disturbances that take place within the courts.

- Parole Officer - Supervises offenders who have been released from jail or prison. Oversee community service or work responsibilities. Oversee recently-freed inmates.
- Probation Officer - Probation officers supervise offenders who are awaiting trial, or serving a sentence in the community, rather than in jail or prison.
- Private Investigators work in the private sector or in police departments. Additional training and certification may be required.
- Crime Scene Technician
- Crime Intelligence Analyst
- Please visit the Bureau of Labor Statistics for updated information <http://www.bls.gov/>

## Bachelor Degree Options

- Criminal Justice Bachelor of Science degree (p. 122)
- Emergency Management and Homeland Security Bachelor of Science degree (p. 608)
- Organization Supervision Bachelor degree (p. 108)

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## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	15
	Criminal Justice Core	12
	Introductory Coursework	6
	Criminology and Criminal Justice Electives	24
	General Electives	3
	<b>Total Hours</b>	<b>60</b>

### General Education Requirements

Code	Title	Hours
	Writing Requirement	6
	Mathematics, Statistics and Logic Requirement	3
	Speaking Requirement	3
	<i>Complete one area:</i>	3
	Arts or Humanities Requirement	
	Natural Science Requirement	
	<b>Total Hours</b>	<b>15</b>

## Criminal Justice Core

Code	Title	Hours
CRJU:100	Introduction to Criminal Justice	3
CRJU:102	Principles of Criminal Law	3
CRJU:103	Introduction to Corrections	3
CRJU:105	Introduction to Police Studies	3
	<b>Total Hours</b>	<b>12</b>

## Introductory Coursework

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
SOCIO:100	Introduction to Sociology	3
	<b>Total Hours</b>	<b>6</b>

## Criminology and Criminal Justice Electives

Code	Title	Hours
<b>Credits may come from the Departments of Criminal Justice, Political Science, and Sociology</b>		
POLIT xxx	Political Science	
CRJU xxx	Criminal Justice	
SOCIO xxx	Sociology	

## General Electives

Code	Title	Hours
<b>Seminars and Workshops do not apply to this requirement</b>		<b>3</b>
XXXX XXX		
	<b>Total Hours</b>	<b>3</b>

## Criminology & Criminal Justice, BS Bachelor of Science in Criminology & Criminal Justice (38001BS)

More on the Criminology & Criminal Justice major (<https://www.uakron.edu/ccj/criminology-and-criminal-justice/>)

The criminology and criminal justice program prepares students for careers in policing, courts, corrections, and criminology at any level of government or in the private sector. This program is also appropriate for students who desire to pursue graduate or law school. Students will take a broad core of criminal justice courses, and then select courses from concentrations in policing, courts, corrections, or criminology. Students have a number of electives to tailor their degrees to particular career paths of interest.

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process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Core Requirement	18
	Foundation Requirements	18-27
	Foreign Culture	6
	Concentration Requirement	18
	Additional Credits for Graduation *	26-17
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Core Requirement

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
CRJU:100	Introduction to Criminal Justice	3
CRJU:102	Principles of Criminal Law	3
CRJU:103	Introduction to Corrections	3
CRJU:105	Introduction to Police Studies	3
SOCIO:100	Introduction to Sociology	3
<b>Total Hours</b>		<b>18</b>

## Foundation Requirements

Code	Title	Hours
<b>Part I</b>		
POLIT:301	Introduction to Political Research	3
or SOCIO:301	Social Research Design	
<b>Part II</b>		
POLIT:361	Politics of the Criminal Justice System	3
POLIT:395	Internship in Government & Politics <sup>1</sup>	2-9
SOCIO:320	Social Inequalities	3
SOCIO:330	Criminology	3
<b>Part III</b>		
POLIT:401	Advanced Topics in Research Methods	3-6
or POLIT:480	Policy Problems in Political Science	
or SOCIO:302	Data Analysis	
or SOCIO:401	Advanced Topics in Research Methods	
<b>Total Hours</b>		<b>17-27</b>

<sup>1</sup> Minimum Internship requirement is three credit hours.

## Foreign Culture

Code	Title	Hours
<b>Foreign Culture <sup>1</sup></b>		<b>6</b>
Select at least six credits		
<b>Total Hours</b>		<b>6</b>

<sup>1</sup> At least six credits of coursework which will introduce the student to a foreign culture. Such courses shall be selected from the department approved list.

## Concentration Requirement

Code	Title	Hours
<b>Select one of the following concentration areas:</b>		<b>18</b>
<b>Policing Concentration</b>		
CRJU:305	Policing Administration and Management	3
CRJU:307	Foundations of Crime Analysis	3
CRJU:405	Policing Theory and Strategy	3
		<i>Complete three courses from the program elective list</i> 9
<b>Courts and Law Concentration</b>		
POLIT:335	Law & Society	3
or SOCIO:441	Sociology of Law	
POLIT:360	The Judicial Process	3
CRJU:302	Theory of Criminal Law	3

<i>Complete three courses from the program elective list</i>		9
<b>Corrections Concentration</b>		
SOCIO:431	Theories and Practices of Correctional Systems	3
or POLIT:450	Administering Prisons, Probation, and Parole	
SOCIO:350	Drugs in Society	3
SOCIO:430	Juvenile Delinquency	3
<i>Complete three courses from the program elective list</i>		9
<b>Criminology Concentration</b>		
SOCIO:433	Sociology of Deviant Behavior	3
SOCIO:441	Sociology of Law	3
or POLIT:335	Law & Society	
<i>Complete four courses from the program elective list</i>		12

## Program Elective List

Code	Title	Hours
<b>Electives in Criminal Justice Studies</b>		
CRJU:302	Theory of Criminal Law	3
CRJU:305	Policing Administration and Management	3
CRJU:307	Foundations of Crime Analysis	3
CRJU:325	Information Privacy	3
CRJU:386	Courtroom Proceedings and Testimony	3
CRJU:405	Policing Theory and Strategy	3
CRJU:407	Advanced Crime Analysis	3
CRJU:457	Crime Analysis Applications	3
CRJU:465	Crisis & Trauma: Assessments & Interventions	3
CRJU:480	Special Topics in Criminal Justice	1-3
<b>Electives in Political Science</b>		
POLIT:334	Law, Mediation, and Violence	3
POLIT:335	Law & Society	3
POLIT:337	Terrorism: Perpetrators, Politics and Response	3
POLIT:339	Terrorism and the Constitution	3
POLIT:360	The Judicial Process	3
POLIT:363	Crime, Punishment, Politics: A Comparative Perspective	3
POLIT:370	Public Administration: Concepts & Practices	3
POLIT:400	Political Extremism & Violence	3
POLIT:403	Media, Crime and Public Opinion	3
POLIT:406	Comparative Constitutional Law	3
POLIT:418	Weapons of Mass Destruction	3
POLIT:419	Homeland Security Policy and Process	3
POLIT:443	Political Scandals & Corruption	3
POLIT:450	Administering Prisons, Probation, and Parole	3
POLIT:461	The Supreme Court & Constitutional Law	3
POLIT:462	The Supreme Court & Civil Liberties	3
POLIT:481	The Challenges of Police Work	3
POLIT:482	Criminal Justice Topic: Current Issues	3
POLIT:483	Constitutional Problems in Criminal Justice	3
<b>Electives in Sociology</b>		
SOCIO:310	Social Problems	3
SOCIO:324	Social Movements	3
SOCIO:350	Drugs in Society	3
SOCIO:360	Social Effects of Crime in the Media	3

SOCIO:415	Women in Prison	3
SOCIO:416	Women and Crime	3
SOCIO:421	Race & Ethnic Relations	3
SOCIO:428	Victim in Society	3
SOCIO:430	Juvenile Delinquency	3
SOCIO:431	Theories and Practices of Correctional Systems	3
SOCIO:433	Sociology of Deviant Behavior	3
SOCIO:441	Sociology of Law	3
SOCIO:450	Sociology of Mental Illness	3
SOCIO:455	Family Violence	3

## Recommended Sequence

THIS PLAN OF STUDY IS INTENDED FOR STUDENTS ADMITTED TO THIS PROGRAM FOR FALL 2017 OR LATER.

1st Year		
Fall Semester		Hours
POLIT:100	Government & Politics in the United States <sup>3</sup>	3
CRJU:100	Introduction to Criminal Justice	3
	Speaking Requirement	3
	English Composition I <sup>1</sup>	3
	Math Requirement <sup>2</sup>	3-4
Hours		15-16
Spring Semester		
CRJU:102	Principles of Criminal Law	3
SOCIO:100	Introduction to Sociology <sup>3</sup>	3
	English Composition II <sup>1</sup>	3
	Natural Science w/ lab Requirement	4
	Arts/Humanities Requirement	3
Hours		16
2nd Year		
Fall Semester		
CRJU:103	Introduction to Corrections	3
CRJU:105	Introduction to Police Studies	3
SOCIO:301	Social Research Design	3
or POLIT:301	or Introduction to Political Research	
	Natural Science Requirement	3
	Arts/Humanities Requirement	3
Hours		15
Spring Semester		
SOCIO:302	Data Analysis	3-6
or POLIT:480	or Policy Problems in Political Science	
or POLIT:401	or Advanced Topics in Research Methods	
SOCIO:320	Social Inequalities	3
	Humanities/Arts Requirement	3
	Open Elective <sup>4</sup>	3
	Open Elective <sup>4</sup>	3
Hours		15-18
3rd Year		
Fall Semester		
SOCIO:330	Criminology	3

	Concentration Requirement <sup>5</sup>	3
	Concentration Elective <sup>5</sup>	3
	Open Elective <sup>4</sup>	3
	Open Elective <sup>4</sup>	3
	Hours	15
<b>Spring Semester</b>		
POLIT:361	Politics of the Criminal Justice System	3
	Global Diversity Requirement	3
	Concentration Requirement <sup>5</sup>	3
	Concentration Elective <sup>5</sup>	3
	Open Elective <sup>4</sup>	3
	Hours	15
<b>4th Year</b>		
<b>Fall Semester</b>		
	Concentration Requirement/Elective <sup>5</sup>	3
	Foreign Culture Requirement <sup>6</sup>	3
	Critical Thinking Requirement	3
	Open Elective <sup>4</sup>	3
	Hours	12
<b>Spring Semester</b>		
POLIT:395	Internship in Government & Politics	2-9
	Concentration Elective <sup>5</sup>	3
	Foreign Culture Requirement <sup>6</sup>	3
	Open Elective <sup>4</sup>	3
	Hours	11-18
	Total Hours	114-125

<sup>1</sup> ENGL:111 English Composition I and ENGL:112 English Composition II are the recommended classes to meet the General Education Writing requirement. ENGL:222 Technical Report Writing can be used to fulfill the English Composition II requirement.

<sup>2</sup> While a variety of mathematics and statistics courses can be taken to meet this requirement, it is strongly recommended that students take a statistics course.

<sup>3</sup> POLIT:100 Government & Politics in the United States and SOCIO:100 Introduction to Sociology are required and will fulfill the General Education Social Science requirement.

<sup>4</sup> Open electives can be any course not already required by your major and Upper Level (300/400) electives can be any course in or outside your major excluding workshops.

<sup>5</sup> For the Criminology and Criminal Justice Degree, students select a concentration area. Each of these requires 18 credits, with 2-3 required courses and 3-4 elective courses from the Program Electives List.

<sup>6</sup> There is no language requirement for the Criminology and Criminal Justice degree. However, students who complete the first year of a foreign language will fulfill the Foreign Cultures requirement. If students elect not to complete the first year of a foreign language, 6 credits from coursework designed to introduced the student to a foreign culture are required. An approved list of courses is available from the program advisors.

## Forensic Psychology, Minor

### Minor in Forensic Psychology (380021M)

The Forensic Psychology Minor provides an educational foundation in the application of psychological theory and methods in criminal justice.

#### Program Contact

Stephanie Yuhas, JD

Criminal Justice Studies Department

330-972-7768

syuhas@uakron.edu

The following information has official approval of the **Department of Criminal Justice Studies** and **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Forensic Psychology" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Forensic Psychology may only be awarded at the time a student receives a baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		20
Electives		4
Total Hours		24

## Required Courses

Code	Title	Hours
PSYC:100	Introduction to Psychology	3
PSYC:110	Quantitative Methods in Psychology	4
PSYC:410	Psychological Tests & Measurements	4
CRJU:100	Introduction to Criminal Justice	3
CRJU:286	Courtroom Communication	3
CRJU:287	The Legal System and Psychology	3
Total Hours		20

## Electives

Code	Title	Hours
<b>Select one of the following:</b>		
PSYC:320	Biopsychology	
PSYC:420	Abnormal Psychology	
PSYC:430	Psychological Disorders of Children	
Total Hours		4

## Forensic Studies, Minor

### Minor in Forensic Studies (380020M)

The Forensic Studies Minor is designed for individuals interested in the application of scientific methods to the criminal legal process. The minor

provides the student with a foundation in forensic methods, professional communication, evidence and the investigative process. The minor is appropriate for anyone with an interest in forensics, including students majoring in chemistry, biology, nursing, computer science, or accounting.

#### Program Contact

Stephanie Yuhas, JD  
Criminal Justice Studies Department  
330-972-7768  
syuhas@uakron.edu

The following information has official approval of the **Department of Criminal Justice Studies** and **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Forensic Studies" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Forensic Studies may only be awarded at the time a student receives a baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Law-Related Course		3
Skill-Related Course		3
Total Hours		18

## Required Courses

Code	Title	Hours
CRJU:100	Introduction to Criminal Justice	3
CRJU:251	Criminal Investigation	3
CRJU:253	Basic Forensic Methods	3
CRJU:255	Introduction to Forensic Investigation	3
Total Hours		12

## Law-Related Course

Code	Title	Hours
<b>Complete one course:</b>		<b>3</b>
CRJU:102	Principles of Criminal Law	
CRJU:104	Evidence & Criminal Legal Process	
CRJU:286	Courtroom Communication	
Total Hours		3

## Skill-Related Course

Code	Title	Hours
<b>Complete one course:</b>		<b>3</b>
EMHS:280		
EMHS:281		
CRJU:234	Computer and Information Security	
Total Hours		3

# Forensic Study of Behaviors, Certificate

## Certificate in Forensic Study of Behaviors (380022C)

### \*Admission to this program has been suspended\*

This certificate program is intended for individuals who wish to enhance their knowledge of behavioral sciences in criminal justice settings. This certificate is independent of a degree and is designed for individuals in one of the following categories:

1. Criminal justice majors who wish to specialize in the study of behaviors within the criminal justice field
2. Non-criminal justice majors who want an introduction to the discipline of criminal justice
3. Professionals employed in the field who would like to further develop their expertise in this area

#### Program Contact

Stephanie Yuhas, JD  
Criminal Justice Studies Department  
330-972-7768  
syuhas@uakron.edu

The following information has official approval of the **Department of Criminal Justice Studies** and **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Forensic Study of Behaviors" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
CRJU:100	Introduction to Criminal Justice	3
CRJU:224	Profiling Serial Killers	3
CRJU:226	Interviews, Interrogations, and Hostage Negotiations	3
CRJU:255	Introduction to Forensic Investigation	3
3800:260	Critical Incident Interventions for Criminal Justice	3
SOCIO:428	Victim in Society	3
Total Hours		18

## Law Enforcement, Minor

### Minor in Law Enforcement (380016M)

### \*Admission to this program has been suspended\*

#### Program Contact

Dr. David Licate  
Professor  
330-972-7392  
licate@uakron.edu

The following information has official approval of the **Department of Criminal Justice Studies** and **The Buchtel College of Arts and Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Criminal Justice Technology-Law Enforcement" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
CRJU:100	Introduction to Criminal Justice	3
CRJU:102	Principles of Criminal Law	3
CRJU:104	Evidence & Criminal Legal Process	3
CRJU:105	Introduction to Police Studies	3
CRJU:251	Criminal Investigation	3
3800:260	Critical Incident Interventions for Criminal Justice	3
Total Hours		18

## Dance, Theatre, and Arts Administration

### Dance

The University of Akron can help you choose the undergraduate dance degree program that best supports your academic, personal and career goals. Both degree programs prepare students for performing, graduate studies in dance, fields related to dance such as arts administration, dance history, physical therapy, dance therapy, dance education, or dance ethnology, as well as teaching in private studios. Students in the Dance Program enjoy exceptional opportunities to study, perform, and collaborate with regionally, nationally, and internationally renowned professionals. The University of Akron Dance Program has been accredited by the National Association of Schools of Dance since 1986. Whatever your goals in dance are, The University of Akron Dance Program can help you develop the necessary skills.

### Arts Administration

The University of Akron Arts Administration Graduate Program is designed to prepare students for successful careers in all disciplines of the non-profit arts. The strength of the program lies in a commitment to balancing theoretical study in the classroom with an application through practical experiences and internships. The M.A. in Arts Administration is awarded after the successful completion of the graduate course

work, the completion of a professional internship experience, and the acceptance of a thesis/project. The curriculum provides students with a philosophical base for decision-making and planning, as well as a comprehensive range of techniques for working effectively in the field.

## Dance, Theatre, and Arts Administration Facilities

Our Center for Dance and Theatre at Guzzetta Hall is world class. It features seven technology-enhanced dance studios, including an alternative/experimental performance venue; a design and lighting studio; scene and costume shops; trainer and physiotherapy facilities; locker rooms; and technology-enhanced classrooms.

Additional information about the school, its faculty, and programs can be accessed at <https://uakron.edu/dtaa/>

### Program Contact

Marc Reed, DMA  
Director, School of Dance, Theatre, and Arts Administration  
Director, School of Music  
330-972-5761  
marcreed@uakron.edu (marcreed@uakron.edu)

- Dance with Business Cognate, BA (p. 132)
- Dance, BFA (p. 133)
- Dance, Minor (p. 135)
- Theatre Arts, Applied Theatre & Business Entrepreneurship, BAT (p. 136)
- Theatre Arts, BA (p. 137)
- Theatre Arts, BAT (p. 139)
- Theatre Arts, Minor (p. 140)
- Theatre Arts, Physical Theatre, BAT (p. 140)
- Theatre Arts, Theatre & Film Studies, BAT (p. 142)
- Theatre, Applied Theatre & Social Entrepreneurship, BAT (p. 143)

## Dance (DNCE)

### DNCE:100 Ballet I (2 Credits)

(May be repeated for a total of four credits) Emphasis on body placement, muscular awareness. (Formerly 7900:124)

### DNCE:101 Ballet II (2 Credits)

Prerequisite: permission or grade of B or better for one semester of DNCE 100. (May be repeated for a total of four credits) Continuation of DNCE 100. Basic exercises of classical ballet. (Formerly 7900:125)

### DNCE:110 Modern I (2 Credits)

(May be repeated for a total of four credits) Exploring the basic principles of modern dance with an emphasis on body alignment and muscular awareness. (Formerly 7900:119)

### DNCE:111 Modern II (2 Credits)

Prerequisite: permission or grade of B or better for one semester in DNCE 110. (May be repeated for a total of four credits) Continuation of DNCE 110. Increasing movement vocabulary, muscular strength and coordination of modern dance. (Formerly 7900:120)

### DNCE:120 Jazz Dance I (2 Credits)

(May be repeated for a total of four credits.) Basic jazz dance technique and jazz dance origins. (Formerly 7900:130)

**DNCE:130 Tap Dance I (2 Credits)**

(May be repeated for a total of four credits.) Basic tap dance technique and terminology. (Formerly 7900:144)

**DNCE:148 Dance Somatics: Alexander Technique (1 Credit)**

Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:105)

**DNCE:149 Dance Somatics: Gyrokinesis (1 Credit)**

Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:104)

**DNCE:150 Dance Somatics: Pilates (1 Credit)**

Prerequisite: DNCE 200 or DNCE 210, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:102)

**DNCE:151 Dance Somatics: Yoga (1 Credit)**

Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:101)

**DNCE:152 Topics in World Dance (1 Credit)**

May be repeated for a total of six credits. Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of various dance genres from world and historical traditions. (Formerly 7900:111)

**DNCE:153 Orientation for Dance (0 Credits)**

Orientation to the dance program and field. Must be taken by all dance majors in their first semester of study. Dance Orientation is a degree requirement and is offered on a credit/noncredit basis. (Formerly 7900:103)

**DNCE:154 Freshman Jury and Interview (0 Credits)**

The passing of the Freshman Jury and interview is a requisite for becoming a BA dance major. It is also a degree requirement. Students may take the Freshman Jury and Interview the following semester if failed the first time. It may not be taken more than twice. Offered on a credit/non credit basis. (Formerly 7910:201)

**DNCE:155 BFA Audition (0 Credits)**

Prerequisite: DNCE 154 or permission. Passing the BFA Audition is a requisite for becoming a BFA dance major. It is also a degree requirement. It may not be taken more than twice. Offered on a credit/noncredit basis. (Formerly 7910:200)

**DNCE:156 Physical Analysis for Dance I (2 Credits)**

Prerequisites: BIOL 200, BIOL 201; NUTR 133. Required for all dance majors. Recommended to be taken in the first two years. Lecture/laboratory. Skeletal and muscular analysis for dance technique. (Formerly 7900:116)

**DNCE:157 Physical Analysis for Dnce II (2 Credits)**

Prerequisite: DNCE 156. Support systems, conditioning injury prevention, rehabilitation, nutrition for dancers. (Formerly 7900:117)

**DNCE:158 Movement Fundamentals (2 Credits)**

Beginning study of Labanotation method of recording movement, and Laban's theories of effort, space, and shape. (Formerly 7900:320)

**DNCE:159 Ballroom Dance I (1 Credit)**

(May be repeated for a total of four credits.) Introduction to the basic patterns and techniques of major ballroom dances. (Formerly 7900:150)

**DNCE:160 Dance As An Art Form (2 Credits)**

Survey of dance for novice observer: aesthetics, philosophies, methods of training. Lecture and discussion of readings, viewing of film, videotape and live performances. (Formerly 7900:115)

**DNCE:200 Ballet III (3 Credits)**

(May be repeated for a total of 6 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 101. Continuation of DNCE 101. Emphasis on barre and developing strength. (Formerly 7900:224)

**DNCE:201 Ballet IV (3 Credits)**

Prerequisite: Permission or grade of B or better for one semester in DNCE 200. Continuation of DNCE 200. Emphasis on the increase of strength and flexibility. (May be repeated for a total of twelve credits) (Formerly 7900:225)

**DNCE:210 Modern III (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 111. Continuation of DNCE 111. Introduction to current modern dance styles and technique. (Formerly 7900:219)

**DNCE:211 Modern IV (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 210. Continuation of DNCE 210. Application of basic modern dance theory of current modern dance styles and techniques. (Formerly 7900:220)

**DNCE:220 Jazz Dance II (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better in DNCE 120. Continuation of basic jazz technique and stylistic range of jazz dance. (Formerly 7900:230)

**DNCE:230 Tap Dance II (2 Credits)**

(May be repeated for a total of four credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 130. Refinement of tap technique and stylistic range of tap dance. (Formerly 7900:145)

**DNCE:265 Viewing Dance (3 Credits)**

To explore dance as an art form through experiential activities, dance literature, film and live performance for non-dance majors. (Formerly 7900:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Arts

**DNCE:290 Special Topics in Dance (1-4 Credits)**

(May be repeated. No more than 10 credits may be applied toward the B.F.A. or B.A.) Prerequisite: Permission. Traditional and nontraditional topics in dance. (Formerly 7920:403)

**DNCE:300 Ballet V (4 Credits)**

(May be repeated for a total of 16 credits) Prerequisite: permission or a grade of B+ or better for one semester in DNCE 201. Theory, vocabulary, structure, placement. Concurrent enrollment in pointe class recommended. (Formerly 7900:122)

**DNCE:301 Ballet VI (4 Credits)**

(May be repeated for a total of 16 credits) Prerequisite: permission or a grade of B+ or better for one semester in DNCE 300. Continuation of DNCE 300, expanding theory on vocabulary, structure, placement. Concurrent enrollment in pointe class recommended. (Formerly 7900:222)



**DNCE:310 Modern V (3 Credits)**

(May be repeated for a total of 6 credits.) Prerequisite: Permission or a grade of B or better for one semester in DNCE 211. The intermediate study of modern dance styles and technique through the application of more complex movement theories, rhythmic patterns, and improvisational studies. (Formerly 7900:228)

**DNCE:311 Modern VI (3 Credits)**

(May be repeated for a total of 6 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 310. Introduction to intermediate theory of current modern dance styles and techniques. (Formerly 7900:229)

**DNCE:320 Jazz Dance III (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 220. Intermediate jazz dance technique and the jazz eras. (Formerly 7900:351)

**DNCE:330 Tap Dance III (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 230. Advancement of tap dance technique through the use of complex combinations, syncopation, routines, and styles. (Formerly 7900:246)

**DNCE:340 Partnering (2 Credits)**

Prerequisite: [DNCE 300 or DNCE 301 or DNCE 400 or DNCE 401] and [DNCE 310 or DNCE 311 or DNCE 410 or DNCE 411] or permission. An exploration of the fundamentals of dance partnering: weight sharing, centering, safety via contact improvisation. (Formerly 7900:333)

**DNCE:349 Learning Theory for Dance (2 Credits)**

Prerequisites: DNCE 160, DNCE 200 (or higher levels of ballet technique); PSYC 100 or EDFN 220; or permission of instructor. Theories of learning and their use in teaching dance. (Formerly 7900:361)

**DNCE:351 History of Ballet (2 Credits)**

Prerequisite: DNCE 160 or DNCE 265 or permission. Development of ballet beginning with its origins in French Courts through the Romantic and Diaghilev Eras to current times. (Formerly 7900:432)

**DNCE:352 Digital Technology for Dance (3 Credits)**

Hands-on exploration of theories and methods used in electronic development of promotional and creative materials. Activities include still and motion image capture, editing, and distribution. (Formerly 7900:274)

**DNCE:353 Instructional Strategies for Dance (2 Credits)**

Prerequisite: DNCE 349. Practical work and development of teaching skills in dance for public and private settings. (Formerly 7900:362)

**DNCE:354 Dance Philosophy and Criticism (3 Credits)**

Prerequisites: HIST 210 or HIST 221, PHIL 101, DNCE 160 and DNCE 351 or DNCE 355. Review of historical dance philosophies, performance, attributes, choreographic and theatrical elements of dance and criticism. (Formerly 7900:445)

**DNCE:355 Dance History: 20th Century (2 Credits)**

Prerequisite: DNCE 160 or DNCE 265 or permission. Development of modern dance as an art form and the further evolution of ballet and concert dance. (Formerly 7900:433)

**DNCE:356 Choreography I (2 Credits)**

Prerequisite: Permission or DNCE 211 or above. Theoretical and practical introduction to principles of choreography: space, time, energy. (Formerly 7900:316)

**DNCE:357 Choreography II (2 Credits)**

Prerequisite: DNCE 356 or permission. Continuation of DNCE 356. Emphasis on musical choices and finding movement specific to the individual choreographer. (Formerly 7900:317)

**DNCE:358 Pointe I (2 Credits)**

(May be repeated for a total of eight credits) Prerequisite: permission or DNCE 300 or above. Corequisite: DNCE 300 or above. Reinforcement of selection principles for pointe shoes, proper holding of foot muscularly and control of heel while ascending and descending from pointe. (Formerly 7900:141)

**DNCE:359 Pointe II (2 Credits)**

(May be repeated for a total of 12 credits) Prerequisite: permission or a grade of B or better for one semester in DNCE 358. Corequisite: DNCE 301 or above. Continuation of DNCE 358. Continued development of strength, coordination and endurance of holding foot muscularly. Further development and emphasis on principles of weight transfer. (Formerly 7900:241)

**DNCE:360 Rhythmic Analysis - Dance (2 Credits)**

Prerequisites: 32 credits and DNCE 101 or DNCE 111, or higher levels of ballet or modern dance technique, or permission. Lecture and application of basic rhythmic structures used in dance and dance instruction. (Formerly 7900:321)

**DNCE:400 Ballet VII (4 Credits)**

(May be repeated for a total of 24 credits.) Prerequisite: Permission or a grade of B+ or better for one semester in DNCE 301 Ballet VI. Continuation of DNCE 301. Emphasis on technique, style, line. Concurrent enrollment in point class is recommended. (Formerly 7900:322)

**DNCE:401 Ballet VIII (4 Credits)**

(May be repeated for a total of 32 credits.) Prerequisite: permission or a grade of B+ or better for one semester in DNCE 400. Continuation of DNCE 400. Advanced level of technique. Concurrent enrollment in pointe class recommended. (Formerly 7900:422)

**DNCE:410 Modern VII (3 Credits)**

(May be repeated for a total of 12 credits.) Prerequisite: permission or a grade of B or better in DNCE 311. Refinement and stylization of modern techniques for performance of modern dance. (Formerly 7900:328)

**DNCE:411 Modern VIII (3 Credits)**

(May be repeated for a total of 12 credits.) Prerequisite: permission or a grade of B or better in DNCE 410 Modern VII. Application of advanced modern dance techniques and styles. (Formerly 7900:329)

**DNCE:420 Jazz Dance IV (2 Credits)**

(May be repeated for a total of eight credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 320. Advanced jazz dance technique and styles for the professional dancer. (Formerly 7900:451)

**DNCE:430 Tap Dance IV (2 Credits)**

(May be repeated for a total of 8 credits.) Prerequisite: Permission or a grade of B or better for one semester in DNCE 330. Advanced tap combinations, styles, routines. (Formerly 7900:347)

**DNCE:440 Pas De Deux I (2 Credits)**

(May be repeated for a total of eight credits) Prerequisites: Permission; concurrent enrollment in a pointe class recommended. Provides student with the beginning understanding and practice of pas de deux. (Formerly 7900:334)

**DNCE:450 Choreography III (2 Credits)**

Prerequisite: DNCE 357 or permission. Continuation of DNCE 357. Emphasis on form and choreographic analysis. (Formerly 7900:416)

**DNCE:451 Choreography IV (2 Credits)**

Prerequisite: DNCE 450 or permission. Continuation of DNCE 450. Expanding into group choreography and longer works. (Formerly 7900:417)

**DNCE:453 Senior Seminar (1 Credit)**

Prerequisite: DNCE 352; senior standing or permission. A forum to develop professional skills to make the transition to a dance career: artistic, academic, or business. (Formerly 7900:471)

**DNCE:454 Seminar & Field Experience in Dance Education (2 Credits)**

Prerequisite: DNCE 353. Corequisite: DNCE 161. Supervised observation and teaching experience in dance education in the field. (Formerly 7900:461)

**DNCE:455 Professional Issues in Dance Education (2 Credits)**

Prerequisite: DNCE 454. Corequisite: DNCE 161. An examination of current issues and goals in dance education. (Formerly 7900:462)

**DNCE:456 Independent Study in Dance (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission and prearrangement with instructor. Individual creative project, research or readings in dance with faculty advisor. (Formerly 7900:497)

**DNCE:457 Honors Research Project in Dance (1-3 Credits)**

May be repeated for a total of six credits. Prerequisite: Approval of department preceptor. Creative project or research supervised by dance preceptor. (Formerly 7900:498)

**DNCE:490 Workshop in Dance (1-3 Credits)**

(May be repeated for a total of eight credits) Prerequisite: Permission. Group study/projects investigating a particular field of dance not covered by other courses. (Formerly 7900:490)

**DNCE:491 Special Topics in Dance (1-4 Credits)**

(May be repeated. No more than 10 credits may be applied toward the B.F.A. or B.A.) Prerequisite: Permission. Traditional and nontraditional topics in dance. (Formerly 7900:403)

## Dance Organizations (DNCEO)

**DNCEO:150 Classical Ballet Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of classical ballet repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:101)

**DNCEO:151 Contemporary Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of contemporary dance repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:103)

**DNCEO:152 Jazz Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of jazz dance repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:104)

**DNCEO:153 Touring Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of any dances prepared for touring purposes. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:111)

**DNCEO:154 Character Ballet Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of character ballet repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:102)

**DNCEO:155 Dance Production Ensemble (1 Credit)**

By permission only. Participation in technical assistance, preparation and performance of student dance productions: theory and laboratory. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:112)

**DNCEO:156 Musical Comedy Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of dance production numbers in a musical comedy. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:105)

**DNCEO:157 Opera Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of dance sequences in an opera. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:106)

**DNCEO:158 Experimental Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of avant-garde dances. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:107)

**DNCEO:159 Ethnic Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of ethnic dance repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:109)

**DNCEO:160 Period Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of dances from specific historical periods such as the Renaissance or Baroque eras. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:110)

**DNCEO:161 Choreographers Workshop (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of student dances. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:108)

**DNCEO:191 Dance Organizations: Workshop (1 Credit)**

By permission only. Participation in a dance workshop as volunteer, participant and/or presenter that forwards and augments the student's dance education and networking skills. (Formerly 7910:113)

## Theatre (THEA)

**THEA:100 Experiencing Theatre (3 Credits)**

Experience the theatre as a live, dynamic art form through an exposure to and participation in University productions. (Formerly 7800:100)

Gen Ed: - Arts

**THEA:103 Theatre Orientation (0 Credits)**

Orientation to the information and strategies necessary to aid new theatre students in their understanding of the field of theatre. (Formerly 7800:103)

**THEA:108 Introduction to the Visual Arts of World Theatre (3 Credits)**

Introduction to the theories and styles of scenic, costume, and lighting design from around the world, including the application of these principles to various media. (Formerly 7800:108)

**THEA:145 Ensemble Theatre Lab (3 Credits)**

An introduction to the techniques of collaborative creation and physical theatre especially space awareness, movement training, and storytelling. (Formerly 7800:145)

**THEA:151 Vocal Dynamics (3 Credits)**

This course is concerned with the various techniques and principles of vocal production in their practical application providing a structure to discover your vocal potential. (Formerly 7800:151)

**THEA:172 Acting I (3 Credits)**

Introductory fundamentals of acting through the investigation of the body as an instrument for the stage, improvisation and basic scene study. (Formerly 7800:172)

**THEA:264 Playscript & Performance Analysis (3 Credits)**

An introduction to various methods of how to read and analyze a play script for theatre production, utilizing theories and tools from Aristotle to today. (Formerly 7800:264)

**Gen Ed:** - Arts

**THEA:265 Basic Stagecraft (3 Credits)**

Basic stagecraft including equipment, construction and handling of two-dimensional scenery and theatrical hardware. Laboratory required. (Formerly 7800:265)

**THEA:274 Digital Technology for Theatre (3 Credits)**

Hands-on exploration of theories and methods used in electronic development of promotional and creative materials. Activities include still and motion image capture, editing and distribution. (Formerly 7800:274)

**THEA:301 Introduction to Theatre Through Film (3 Credits)**

Prerequisite: HIST 210 or HIST 221. A study of the Theatre with emphasis on its cultural and social influences on our society. Does not meet the Humanities requirement for Theatre majors. (Formerly 7800:301)

**THEA:306 Costume Design for the Performing Arts and Media (3 Credits)**

Prerequisites: THEA 108. Costume design and construction techniques, organization and maintenance of wardrobe for stage performance and other types of production. Lab required. (Formerly 7800:306)

**THEA:335 History of Theatre and Dramatic Literature: Origins through 18th Century (3 Credits)**

The history and theory of dramatic literature and theatre practices from their origins through the 18th Century, including select non-western theatre traditions. (Formerly 7800:335)

**Gen Ed:** - Global Diversity

**THEA:336 Scenic Design for Performing Arts & Media (3 Credits)**

Prerequisites: THEA 108. The theory, principles, and practice of scene design for the theatre and other media. Lab required. (Formerly 7800:336)

**THEA:351 Advanced Ensemble Theatre Lab (3 Credits)**

Prerequisites: THEA 145. Advanced training in the techniques and principles of collaborative creation and physical theatre leading toward performance of a devised solo and/or group performance. (Formerly 7800:351)

**THEA:355 Lighting Design and Technology (3 Credits)**

Prerequisites: THEA 108 The art and technique of lighting design for the stage and other media: light plotting, color theory, and special effects. Lab required. (Formerly 7800:355)

**THEA:370 Directing I (3 Credits)**

Prerequisites: THEA 100, THEA 172, and THEA 264. Emphasizes fundamentals of play directing, including responsibilities of director, stage nomenclature, play selection, analysis, and rehearsal techniques. (Formerly 7800:370)

**THEA:373 Acting II (3 Credits)**

Prerequisite: THEA 172. Continuation of THEA 172. Further emphasis on the psychology of the actor and development of performing techniques through scene study. (Formerly 7800:373)

**THEA:374 Acting III (3 Credits)**

Prerequisite: THEA 373. Further in-depth actor training with emphasis on the language and interpretation of classic plays including Shakespeare. (Formerly 7800:374)

**THEA:403 Special Topics: Theatre Arts (1-3 Credits)**

Prerequisite: Permission. Traditional and nontraditional topics in theatre arts. (May be repeated, only 3 credits may apply to Theatre major and on 9 credits toward B.A degree). (Formerly 7800:403)

**THEA:433 Theatre Organization & Production Management (3 Credits)**

Study of successful methods of theatre organization and production stage management of professional and non-professional performing arts operations. (Formerly 7800:433)

**THEA:435 History of Theatre and Dramatic Literature: 1800 to Present (3 Credits)**

The history and theory of dramatic literature and theatre practices from the nineteenth century through the present, including select non-western theatre traditions. (Formerly 7800:435)

**Gen Ed:** - Global Diversity

**THEA:436 Styles of Scenic Design for the Performing Arts and Media (3 Credits)**

Prerequisite: THEA 336. Theatrical and practical exploration of the styles and periods of production design and designers for stage and media. Lab required. (Formerly 7800:436)

**THEA:455 Creating Performance (3 Credits)**

(May be repeated for a total of six credits.) This course introduces devising processes, improvisation, ensemble work, and physical theatre techniques appropriate to the preparation of practical performance projects from sources other than a conventional play. (Formerly 7800:455)

**THEA:461 Directing II (3 Credits)**

Prerequisite: THEA 370. Emphasizes fundamentals of play directing, including responsibilities of director, stage nomenclature, play selection, analysis, and rehearsal techniques. (Formerly 7800:461)

**THEA:467 Multi-Cultural Theatre (3 Credits)**

A detailed examination of contemporary performances, performance texts, and theoretical writings that reference the history and experience of diverse communities of America and the world. (Formerly 7800:467)

**Gen Ed:** - Domestic Diversity

**THEA:471 Senior Seminar (1 Credit)**

Prerequisites: THEA 274, upper class standing, and permission from the theatre advisor. A forum to develop professional skills to make the transition to a theatre career: artistic, academic, business and professional. (Formerly 7800:471)

**THEA:476 Theatre and Community Action (3 Credits)**

This course will explore civic engagement strategies and situations linking theatre and community in which students tackle community issues and concerns utilizing various performative techniques. (Formerly 7800:476)

**THEA:480 Independent Study: Theatre (1-3 Credits)**

Practice, study, and/or research in selected elements of theatre arts and production including preparation and presentation of creative and technological projects. (Formerly 7800:480)

**THEA:490 Workshop in Theatre Arts (1-3 Credits)**

(May be repeated for a total of 6 credits) Prerequisite: advanced standing or permission. Group study or group projects investigating particular phases of theatre arts not covered by other courses in curriculum. (Formerly 7800:490)

**THEA:495 Honors Research Project in Theatre (1-3 Credits)**

Prerequisite: Approval of department preceptor. Creative project or research supervised by theatre preceptor. (Formerly 7800:495)

## Dance with Business Cognate, BA

### Bachelor of Arts in Dance with Business Cognate (C90002BA)

More on the Dance with Business Cognate major (<https://www.uakron.edu/dtaa/dance/degree-programs.dot>)

This BA degree is designed to offer students a broad learning experience in dance, including ballet, modern, tap, and jazz, supplemented by business studies. Core coursework includes choreography, dance history, pedagogy, and physical analysis. This program prepares students for dance studio management, graduate studies in the fields related to dance such as arts administration, dance history, physical therapy, dance therapy, or dance ethnology, as well as teaching in private studios.

Placement into the dance program for the first year of study as a probationary dance major is by audition only. Promotion in levels of dance techniques is by receipt of a "B+" grade or better for one semester for advancement from Ballet IV to V to VI to VII to VIII respectively, and by receipt of a "B" grade or better for one semester in all other technique classes.

To be admitted to the BA program in Dance in the School of Dance, Theatre and Arts Administration, students must complete one year of study as a probationary dance major, demonstrate acceptable work habits, pass the Freshman Jury and Interview and maintain a 2.785 GPA in all dance classes. All students are required to be enrolled in a dance technique class each semester until they satisfy their technique requirements. Completion of two semesters of Ballet V is required for the BA in Dance Studies with a Business Cognate.

The following information has official approval of **The School of Dance, Theatre, and Arts Administration** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade

in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Business Cognate		9
Ballet Technique		14
Modern Technique		9
Jazz and Tap		8
Somatic, World Dance, and Other		7
Dance Lecture Courses		27
Dance Organizations		5
Additional Credits for Graduation *		8
<b>Total Hours</b>		<b>121</b>

\* This major requires a minimum of 121 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
PSYC:100	Introduction to Psychology	
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirement

**Code Title Hours**  
**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;  
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Business Cognate

Code	Title	Hours
<b>Select nine credits of the following business minors:</b>		<b>9</b>
	Entrepreneurship	
	Business Administration for Non-Business Majors	
	Pre-MBA for Non-Business Majors	
	Sales Management	
	Consumer Marketing	
Total Hours		9

## Ballet Technique (Ballet III-V)

Code	Title	Hours
<b>Select 14 credits with two semesters of Ballet V</b>		<b>14</b>
DNCE xxx	Ballet	
DNCE:300	Ballet V	
DNCE:300	Ballet V	
Total Hours		14

## Modern Technique (Modern III-V)

Code	Title	Hours
<b>Select nine credits with one semester of Modern V</b>		<b>9</b>
DNCE xxx	Modern	
DNCE:310	Modern V	
Total Hours		9

## Jazz and Tap

Code	Title	Hours
DNCE:120	Jazz Dance I	2
DNCE:220	Jazz Dance II	2
DNCE:130	Tap Dance I	2
DNCE:230	Tap Dance II	2
Total Hours		8

## Somatics, World Dance, and Other

Code	Title	Hours
DNCE xxx	Dance Somatics	1
DNCE xxx	Dance Somatics	1
DNCE:152	Topics in World Dance	1
DNCE:152	Topics in World Dance	1
DNCE:159	Ballroom Dance I	1
DNCE:340	Partnering	2
Total Hours		7

## Dance Lecture Courses

Code	Title	Hours
DNCE:153	Orientation for Dance	0
DNCE:160	Dance As An Art Form	2
DNCE:156	Physical Analysis for Dance I	2
DNCE:157	Physical Analysis for Dnce II	2
DNCE:352	Digital Technology for Dance	3
DNCE:356	Choreography I	2
DNCE:357	Choreography II	2
DNCE:158	Movement Fundamentals	2
or DNCE:360	Rhythmic Analysis - Dance	
DNCE:349	Learning Theory for Dance	2
DNCE:353	Instructional Strategies for Dance	2
DNCE:351	History of Ballet	2
DNCE:355	Dance History: 20th Century	2
DNCE:354	Dance Philosophy and Criticism	3
DNCE:453	Senior Seminar	1
DNCE:154	Freshman Jury and Interview	0
Total Hours		27

## Dance Organizations

Code	Title	Hours
<b>Select a minimum of five credits of the following:</b>		<b>5</b>
DNCEO:153	Touring Ensemble (two semesters)	
DNCEO:155	Dance Production Ensemble	
DNCEO xxx		
Total Hours		5

## Dance, BFA

### Bachelor of Fine Arts in Dance (C90000BFA)

More on the Dance major (<https://www.uakron.edu/dtaa/dance/degree-programs.dot>)

The BFA dance major is designed for the student who wishes to pursue professional training in dance through an emphasis in ballet and modern dance techniques. This program offers extensive training in technical, performing and choreographic skills and is supported by a core of coursework in dance history, pedagogy, and physical analysis. The BFA in Dance prepares students for performing, graduate studies in performance and choreography, fields related to dance such as arts administration, dance history, physical therapy, dance therapy, dance education, or dance ethnology, as well as teaching in private studios.

Placement into the dance program for the first year of study as a probationary dance major is by audition only. Promotion in levels of dance techniques is by receipt of a "B+" grade or better for one semester for advancement from Ballet IV to V to VI to VII to VIII respectively, and by receipt of a "B" grade or better for one semester in all other technique classes.

To be admitted to the BFA degree program in Dance in the School of Dance, Theatre, and Arts Administration, students must work for one year of study as a probationary dance major, demonstrate acceptable

work habits, pass the Freshman Jury and Interview to gain admittance to the college and status as a BA in Dance major in preparation for auditioning for the BFA program at the end of the sophomore year. BFA students must maintain a 2.875 GPA in all dance classes for a total of two years and may be placed on artistic probation if they demonstrate less acceptable work habits. Full status must be regained to graduate. To graduate with the BFA in Dance, students must complete one full year of Ballet VIII with a minimum of "B" and be enrolled in a ballet technique class each semester until they satisfy their technique requirements and maintain an overall 2.875 GPA in all dance classes.

The following information has official approval of **The School of Dance, Theatre, and Arts Administration** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Ballet Technique	28
	Modern Technique	12
	Jazz and Tap	2
	Somatic, World Dance, and Other	6
	Dance Lecture Courses	31
	Dance Organizations	5
	Additional Major Electives *	8
	<b>Total Hours</b>	<b>126</b>

\* This major requires a minimum of 126 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	

<i>Social Sciences: 6 credit hours</i>	
PSYC:100	Introduction to Psychology
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	

Total Hours 34

## College of Arts & Sciences Requirement

**Code Title Hours**  
**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Ballet Technique

Code	Title	Hours
<b>Select 28 credits with two semesters of Ballet VIII</b>		<b>28</b>
DNCE xxx	Ballet	
DNCE:401	Ballet VIII <sup>1</sup>	
DNCE:401	Ballet VIII <sup>1</sup>	
<b>Total Hours</b>		<b>28</b>

<sup>1</sup> A grade of B or better must be earned.

## Modern Technique

Code	Title	Hours
DNCE:310	Modern V	3
DNCE:311	Modern VI	3
DNCE:410	Modern VII	3
DNCE:411	Modern VIII	3
<b>Total Hours</b>		<b>12</b>

## Jazz and Tap

Code	Title	Hours
<b>Choose one of the following for two credits:</b>		<b>2</b>
DNCE xxx	Jazz I-IV	
-or-		
DNCE xxx	Tap I-IV	
<b>Total Hours</b>		<b>2</b>

## Somatics, World Dance, and Other

Code	Title	Hours
DNCE:151	Dance Somatics: Yoga	1
or DNCE:150	Dance Somatics: Pilates	
or DNCE:149	Dance Somatics: Gyrokinesis	
DNCE:152	Topics in World Dance	1
DNCE:358	Pointe I	2
or DNCE:359	Pointe II	
or DNCE:440	Pas De Deux I	
DNCE:340	Partnering	2
Total Hours		6

## Dance Lecture Courses

Code	Title	Hours
DNCE:153	Orientation for Dance	0
DNCE:160	Dance As An Art Form	2
DNCE:156	Physical Analysis for Dance I	2
DNCE:157	Physical Analysis for Dnce II	2
DNCE:352	Digital Technology for Dance	3
DNCE:356	Choreography I	2
DNCE:357	Choreography II	2
DNCE:360	Rhythmic Analysis - Dance	2
DNCE:349	Learning Theory for Dance	2
DNCE:353	Instructional Strategies for Dance	2
DNCE:450	Choreography III	2
DNCE:451	Choreography IV	2
DNCE:351	History of Ballet	2
DNCE:355	Dance History: 20th Century	2
DNCE:354	Dance Philosophy and Criticism	3
DNCE:453	Senior Seminar	1
DNCE:155	BFA Audition	0
DNCE:154	Freshman Jury and Interview	0
Total Hours		31

## Dance Organizations

Code	Title	Hours
<b>Select a minimum of five credits of the following:</b>		<b>5</b>
DNCEO:155	Dance Production Ensemble	
DNCEO xxx		
Total Hours		5

## Dance, Minor

### Minor in Dance (C90000M)

#### Program Contact

Marc Reed, DMA

Director, School of Dance, Theatre, and Arts Administration

Director, School of Music

330-972-5761

marcreed@uakron.edu

The following information has official approval of the **School of Dance, Theatre, & Arts Administration** and the **Buchtel College of Arts &**

**Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Dance" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Dance may only be awarded at the time a student receives a baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
	Ballet Technique	4
	Modern Dance	4
	Jazz or Tap	2
	Somatics	1
	World Dance or Ballroom	1
	Required	2-3
	Dance Lecture	6
Total Hours		20-21

## Ballet Technique

Code	Title	Hours
<b>Select one to two ballet technique classes for a minimum of 4 credits of the following (see school director for placement):</b>		<b>4</b>
DNCE:100	Ballet I	
DNCE:101	Ballet II	
DNCE:200	Ballet III	
DNCE:201	Ballet IV	
DNCE:300	Ballet V	
DNCE:301	Ballet VI	
DNCE:400	Ballet VII	
DNCE:401	Ballet VIII	
Total Hours		4

## Modern Dance

Code	Title	Hours
<b>Select two modern dance classes for a minimum of 4 credits of the following (see school director for placement):</b>		<b>4</b>
DNCE:110	Modern I	
DNCE:111	Modern II	
DNCE:210	Modern III	
DNCE:211	Modern IV	
DNCE:310	Modern V	
DNCE:311	Modern VI	
DNCE:410	Modern VII	
DNCE:411	Modern VIII	
Total Hours		4

## Jazz or Tap

Code	Title	Hours	
<b>Select one jazz or tap class for a minimum of 2 credits of the following (see school director for placement):</b>			
DNCE:120	Jazz Dance I	2	
DNCE:220	Jazz Dance II		
DNCE:320	Jazz Dance III		
DNCE:420	Jazz Dance IV		
DNCE:130	Tap Dance I		
DNCE:230	Tap Dance II		
DNCE:330	Tap Dance III		
DNCE:430	Tap Dance IV		
Total Hours			2

## Somatics

Code	Title	Hours
<b>Select one of the following:</b>		
DNCE:151	Dance Somatics: Yoga	1
DNCE:150	Dance Somatics: Pilates	
DNCE:149	Dance Somatics: Gyrokinesis	
DNCE:148	Dance Somatics: Alexander Technique	
Total Hours		1

## World Dance or Ballroom

Code	Title	Hours
DNCE:152	Topics in World Dance	1
or DNCE:159	Ballroom Dance I	
Total Hours		1

## Required

Code	Title	Hours
DNCE:160	Dance As An Art Form	2-3
or DNCE:265	Viewing Dance	
Total Hours		2-3

## Dance Lecture

Code	Title	Hours
<b>Select a minimum of 6 credits of Dance Lecture Classes of the following (or others approved by advisor):</b>		
DNCE:356	Choreography I	6
DNCE:360	Rhythmic Analysis - Dance	
DNCE:349	Learning Theory for Dance	
DNCE:351	History of Ballet	
DNCE:355	Dance History: 20th Century	
Total Hours		6

<sup>1</sup> Dance minors must complete at least one semester of DNCE:101 Ballet II and DNCE:111 Modern II or higher.

**Note:** 6 credits must come from 300/400 level courses

## Theatre Arts, Applied Theatre & Business Entrepreneurship, BAT Bachelor of Arts in Theatre, Applied Theatre and Business Entrepreneurship (C80103BAT)

More on the Theatre, Applied Theatre and Business Entrepreneurship major (<https://www.uakron.edu/dtaa/theatre/>)

### \*Admission to this program has been suspended\*

The Applied Theatre and Business Entrepreneurship Option is an interdisciplinary, liberal arts degree that allows the student to specialize in applied theatre and receive a Certificate in Entrepreneurship through the College of Business Administration.

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## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Theatre Core		40
Interdisciplinary Option		28
Electives		18
Total Hours		120

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		



THEA:100	Experiencing Theatre	
THEA:264	Playscript & Performance Analysis	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
	or ECON:244 Introduction to Economic Analysis	
<b>Diversity</b>		
Domestic Diversity		
THEA:467	Multi-Cultural Theatre	
Global Diversity		
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	
	or THEA:435 History of Theatre and Dramatic Literature: 1800 to Present	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Theatre Core

Code	Title	Hours
THEA:100	Experiencing Theatre	3
THEA:103	Theatre Orientation	0
THEA:108	Introduction to the Visual Arts of World Theatre	3
THEA:145	Ensemble Theatre Lab	3
THEA:172	Acting I	3
THEA:264	Playscript & Performance Analysis	3
THEA:265	Basic Stagecraft	3
THEA:274	Digital Technology for Theatre	3
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	3
THEA:370	Directing I	3
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present	3
THEA:471	Senior Seminar	1
THEA:476	Theatre and Community Action	3
THEO xxx	Production Lab <sup>1</sup>	3
THEO xxx	Performance or Production Lab <sup>1</sup>	3
Total Hours		40

<sup>1</sup> Must be taken for a minimum of three semesters.

## Interdisciplinary Option

Code	Title	Hours
<b>Required Theatre Courses</b>		
THEA:433	Theatre Organization & Production Management	3
THEA:455	Creating Performance	3
THEA:461	Directing II	3
THEA:467	Multi-Cultural Theatre	3
THEO:100	Production Laboratory-Design/Technology	1
<b>Entrepreneurship Certificate</b>		
BUS:101		
ENTRE:201	Introduction to Entrepreneurship	3
ENTRE:301	New Venture Creation	3
FIN:300	Introduction to Finance	3
SALES:275	Professional Selling	3
Total Hours		25

## Electives

Code	Title	Hours
<b>Select 18 credits of Free Electives</b>		
Total Hours		18

## Theatre Arts, BA

### Bachelor of Arts in Theatre Arts (C80002BA)

More on the Theatre Arts major (<https://www.uakron.edu/dtaa/theatre/>)

#### \*Admission to this program has been suspended\*

The Bachelor of Arts (Theatre) is a liberal arts degree which introduces the student to all facets of Theatre, Arts, plus 14 credits of a foreign language.

The following information has official approval of **The School of Dance, Theatre, and Arts Administration** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements

### Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
College of Arts & Sciences Requirements		14
Theatre Core		40
Theatre Electives		12

Electives	20
Total Hours	120

## Recommended General Education Courses

### College of

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

#### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

#### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

THEA:100 Experiencing Theatre

THEA:264 Playscript & Performance Analysis

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics  
or ECON:244 Introduction to Economic Analysis

#### Diversity

Domestic Diversity

THEA:467 Multi-Cultural Theatre

Global Diversity

THEA:335 History of Theatre and Dramatic Literature: Origins through 18th Century  
or THEA:435 History of Theatre and Dramatic Literature: 1800 to Present

#### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours	34
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## Arts & Sciences Requirements

Code	Title	Hours
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Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language. 14

*Foreign Language*

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)
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**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Theatre Core

Code	Title	Hours
THEA:100	Experiencing Theatre	3
THEA:103	Theatre Orientation	0
THEA:108	Introduction to the Visual Arts of World Theatre	3
THEA:145	Ensemble Theatre Lab	3
THEA:172	Acting I	3
THEA:264	Playscript & Performance Analysis	3
THEA:265	Basic Stagecraft	3
THEA:274	Digital Technology for Theatre	3
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	3
THEA:370	Directing I	3
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present	3
THEA:471	Senior Seminar	1
THEA:476	Theatre and Community Action	3
THEO xxx	Production Lab <sup>1</sup>	3
THEO xxx	Performance or Production Lab <sup>1</sup>	3
Total Hours		40

<sup>1</sup> Must be taken for a minimum of three semesters.

## Theatre Electives

Code	Title	Hours
<b>Select 12 credits from the following:</b>		<b>12</b>
THEA:151	Vocal Dynamics	
THEA:301	Introduction to Theatre Through Film	
THEA:306	Costume Design for the Performing Arts and Media	
THEA:336	Scenic Design for Performing Arts & Media	
THEA:351	Advanced Ensemble Theatre Lab	
THEA:355	Lighting Design and Technology	
THEA:373	Acting II	
THEA:374	Acting III	
THEA:403	Special Topics: Theatre Arts	
THEA:433	Theatre Organization & Production Management	
THEA:436	Styles of Scenic Design for the Performing Arts and Media	
THEA:455	Creating Performance	
THEA:461	Directing II	
THEA:467	Multi-Cultural Theatre	
THEA:480	Independent Study: Theatre	
THEA:490	Workshop in Theatre Arts	

or THEA:590 Workshop in Theatre Arts

THEA:495	Honors Research Project in Theatre	
Total Hours		12

## Electives

Code	Title	Hours
<b>Select 20 credits of Free Electives</b>		<b>20</b>
Total Hours		20

## Theatre Arts, BAT

### Bachelor of Arts in Theatre Arts (C80002BAT)

More on the Theatre Arts major (<https://www.uakron.edu/dtaa/theatre/>)

#### \*Admission to this program has been suspended\*

The Bachelor of Arts in Theatre Arts (TAG) is a liberal arts degree which introduces the students to all facets of Theatre Arts and allows the student to specialize in one area of theatre such as Acting/Directing or Design/Tech or branch out into an inter-disciplinary specialization such as Communication, Media Arts, or English Literature.

The following information has official approval of **The School of Dance, Theatre, and Arts Administration** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements

### Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Theatre Core		40
Theatre Electives		12
TAG Requirement		14
Electives		20
Total Hours		120

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		

### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

THEA:100 Experiencing Theatre

THEA:264 Playscript & Performance Analysis

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics

or ECON:244 Introduction to Economic Analysis

### Diversity

Domestic Diversity

THEA:467 Multi-Cultural Theatre

Global Diversity

THEA:335 History of Theatre and Dramatic Literature: Origins through 18th Century

or THEA:435 History of Theatre and Dramatic Literature: 1800 to Present

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## College of Arts & Sciences Requirement

**Code Title Hours**

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Theatre Core

Code	Title	Hours
THEA:100	Experiencing Theatre	3
THEA:103	Theatre Orientation	0
THEA:108	Introduction to the Visual Arts of World Theatre	3
THEA:145	Ensemble Theatre Lab	3
THEA:172	Acting I	3
THEA:264	Playscript & Performance Analysis	3
THEA:265	Basic Stagecraft	3
THEA:274	Digital Technology for Theatre	3
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	3
THEA:370	Directing I	3
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present	3

THEA:471	Senior Seminar	1
THEA:476	Theatre and Community Action	3
THEO xxx	Production Lab <sup>1</sup>	3
THEO xxx	Performance or Production Lab <sup>1</sup>	3
Total Hours		40

<sup>1</sup> Must be taken for a minimum of three semesters.

## Theatre Electives

Code	Title	Hours
<b>Choose 12 credits from the following:</b>		<b>12</b>
THEA:151	Vocal Dynamics	
THEA:301	Introduction to Theatre Through Film	
THEA:306	Costume Design for the Performing Arts and Media	
THEA:336	Scenic Design for Performing Arts & Media	
THEA:351	Advanced Ensemble Theatre Lab	
THEA:355	Lighting Design and Technology	
THEA:373	Acting II	
THEA:374	Acting III	
THEA:403	Special Topics: Theatre Arts	
THEA:433	Theatre Organization & Production Management	
THEA:436	Styles of Scenic Design for the Performing Arts and Media	
THEA:455	Creating Performance	
THEA:461	Directing II	
THEA:467	Multi-Cultural Theatre	
THEA:480	Independent Study: Theatre	
THEA:490	Workshop in Theatre Arts	
	or THEA:590 Workshop in Theatre Arts	
THEA:495	Honors Research Project in Theatre	
Total Hours		12

## TAG Requirement

Code	Title	Hours
<b>Select 14 credits from the theatre electives above or from other disciplines, in consultation with an advisor.</b>		<b>14</b>
Total Hours		14

## Electives

Code	Title	Hours
<b>Select 20 credits of Free Electives</b>		<b>20</b>
Total Hours		20

## Theatre Arts, Minor

### Minor in Theatre Arts (C80002M)

**\*Admission to this program has been suspended\***

In order to obtain a Minor in Theatre Arts, the student must successfully complete a minimum of 18 credits; 12 credits of required theatre core courses and 6 credits of theatre electives from 300-400 level courses.

The following information has official approval of the **School of Dance, Theatre, & Arts Administration** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Theatre Arts" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Theatre Arts may only be awarded at the time a student receives a baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
THEA:100	Experiencing Theatre	3
THEA:108	Introduction to the Visual Arts of World Theatre	3
THEA:172	Acting I	3
THEA:264	Playscript & Performance Analysis	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select 6 credits of 300/400 level electives of the following (or others as approved by advisor):</b>		<b>6</b>
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	
THEA:336	Scenic Design for Performing Arts & Media	
THEA:355	Lighting Design and Technology	
THEA:370	Directing I	
THEA:373	Acting II	
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present	
THEA:455	Creating Performance	
THEA:467	Multi-Cultural Theatre	
THEA:476	Theatre and Community Action	
Total Hours		6

## Theatre Arts, Physical Theatre, BAT Bachelor of Arts in Theatre, Physical Theatre (C80102BAT)

More on the Theatre, Physical Theatre major (<https://www.uakron.edu/dtaa/theatre/>)

### \*Admission to this program has been suspended\*

The Physical Theatre Option is an interdisciplinary, liberal arts degree that allows the student to specialize in physical theatre, ensemble methods, and devising performance.

The following information has official approval of **The School of Dance, Theatre, and Arts Administration** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Theatre Core	40
	Interdisciplinary Option	26
	Electives	20
	<b>Total Hours</b>	<b>120</b>

## Recommended General Education Courses

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

Code	Title	Hours
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
THEA:100	Experiencing Theatre	
THEA:264	Playscript & Performance Analysis	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
ECON:200	Principles of Microeconomics	
	or ECON:244 Introduction to Economic Analysis	
	<b>Diversity</b>	
	<i>Domestic Diversity</i>	
THEA:467	Multi-Cultural Theatre	
	<i>Global Diversity</i>	
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	

or THEA:435 History of Theatre and Dramatic Literature: 1800 to Present

### Integrated and Applied Learning

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## College of Arts & Sciences Requirement

Code Title Hours

Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Theatre Core

Code	Title	Hours
THEA:100	Experiencing Theatre	3
THEA:103	Theatre Orientation	0
THEA:108	Introduction to the Visual Arts of World Theatre	3
THEA:145	Ensemble Theatre Lab	3
THEA:172	Acting I	3
THEA:264	Playscript & Performance Analysis	3
THEA:265	Basic Stagecraft	3
THEA:274	Digital Technology for Theatre	3
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	3
THEA:370	Directing I	3
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present	3
THEA:471	Senior Seminar	1
THEA:476	Theatre and Community Action	3
THEO xxx	Production Lab <sup>1</sup>	3
THEO xxx	Performance or Production Lab <sup>1</sup>	3
	<b>Total Hours</b>	<b>40</b>

<sup>1</sup> Must be taken for a minimum of three semesters.

## Interdisciplinary Option

Code	Title	Hours
THEA:351	Advanced Ensemble Theatre Lab	3
THEA:373	Acting II	3
THEA:374	Acting III	3
THEA:455	Creating Performance	3
or THEA:467	Multi-Cultural Theatre	
DNCE xxx	Ballet, Modern, Jazz, or Tap Technique	8
DNCE xxx	Somatics, World Dance, or Ballroom	6
	<b>Total Hours</b>	<b>26</b>

## Electives

Code	Title	Hours
<b>Select 20 credits of Free Electives</b>		<b>20</b>
Total Hours		20

## Theatre Arts, Theatre & Film Studies, BAT

### Bachelor of Arts in Theatre, Theatre and Film Studies (C80101BAT)

More on the Theatre, Theatre and Film Studies major (<https://www.uakron.edu/dtaa/theatre/>)

#### \*Admission to this program has been suspended\*

The Film Studies Option is an interdisciplinary, liberal arts degree that introduces the student to all facets of Theatre Arts and allows the student to specialize in the analysis of film and film history.

The following information has official approval of **The School of Dance, Theatre, and Arts Administration** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Theatre Core		40
Interdisciplinary Option		26
Electives		20
Total Hours		120

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		

<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
THEA:100	Experiencing Theatre	
THEA:264	Playscript & Performance Analysis	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
or ECON:244 Introduction to Economic Analysis		
<b>Diversity</b>		
Domestic Diversity		
THEA:467	Multi-Cultural Theatre	
Global Diversity		
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	
or THEA:435 History of Theatre and Dramatic Literature: 1800 to Present		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Theatre Core

Code	Title	Hours
THEA:100	Experiencing Theatre	3
THEA:103	Theatre Orientation	0
THEA:108	Introduction to the Visual Arts of World Theatre	3
THEA:145	Ensemble Theatre Lab	3
THEA:172	Acting I	3
THEA:264	Playscript & Performance Analysis	3
THEA:265	Basic Stagecraft	3
THEA:274	Digital Technology for Theatre	3
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	3
THEA:370	Directing I	3
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present	3
THEA:471	Senior Seminar	1
THEA:476	Theatre and Community Action	3
THEO xxx	Production Lab <sup>1</sup>	3

THEO xxx	Performance or Production Lab <sup>1</sup>	3
Total Hours		40

<sup>1</sup> Must be taken for a minimum of three semesters.

## Interdisciplinary Option

Code	Title	Hours
<b>Choose 12 credits from the following:</b>		<b>12</b>
THEA:301	Introduction to Theatre Through Film	
THEA:306	Costume Design for the Performing Arts and Media	
THEA:336	Scenic Design for Performing Arts & Media	
THEA:355	Lighting Design and Technology	
THEA:461	Directing II	
THEA:467	Multi-Cultural Theatre	
<b>Choose 14 credits from the following:</b>		<b>14</b>
ENGL:283	Film Appreciation	
ENGL:380	Film Criticism	
ENGL:440	Women and Film	
ENGL:460	Film and Literature	
FREN:413	French Cinema	
ARAB:210	Arabic Culture through Film	
CHIN:210	Chinese Culture Through Film	
JAPN:210	Japanese Culture through Film	
Total Hours		26

## Electives

Code	Title	Hours
<b>Select 20 credits of Free Electives</b>		<b>20</b>
Total Hours		20

## Theatre, Applied Theatre & Social Entrepreneurship, BAT

### Bachelor of Arts in Theatre, Applied Theatre and Social Entrepreneurship (C80104BAT)

More on the Theatre, Applied Theatre and Social Entrepreneurship major (<https://www.uakron.edu/dtaa/theatre/>)

#### \*Admission to this program has been suspended\*

The Applied Theatre and Social Entrepreneurship Option is an interdisciplinary, liberal arts degree that allows the student to specialize in applied theatre and receive a Certificate in Social Entrepreneurship and Conflict Transformation.

The following information has official approval of **The School of Dance, Theatre, and Arts Administration** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of*

*required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Theatre Core		40
Interdisciplinary Option		28
Electives		18
Total Hours		120

## Recommended General Education Courses

**Code**                      **Title**    **Hours**

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
THEA:100	Experiencing Theatre	
THEA:264	Playscript & Performance Analysis	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ANTH:101	Human Cultures	
<b>Diversity</b>		
Domestic Diversity		
THEA:467	Multi-Cultural Theatre	
Global Diversity		
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	
	or THEA:435 History of Theatre and Dramatic Literature: 1800 to Present	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
ANTH:460	Field Methods in Cultural Anthropology	
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

**Code**                      **Title**    **Hours**

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Theatre Core

Code	Title	Hours
THEA:100	Experiencing Theatre	3
THEA:103	Theatre Orientation	0
THEA:108	Introduction to the Visual Arts of World Theatre	3
THEA:145	Ensemble Theatre Lab	3
THEA:172	Acting I	3
THEA:264	Playscript & Performance Analysis	3
THEA:265	Basic Stagecraft	3
THEA:274	Digital Technology for Theatre	3
THEA:335	History of Theatre and Dramatic Literature: Origins through 18th Century	3
THEA:370	Directing I	3
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present	3
THEA:471	Senior Seminar	1
THEA:476	Theatre and Community Action	3
THEO xxx	Production Lab <sup>1</sup>	3
THEO xxx	Performance or Production Lab <sup>1</sup>	3
<b>Total Hours</b>		<b>40</b>

<sup>1</sup> Must be taken for a minimum of three semesters.

## Interdisciplinary Option

Code	Title	Hours
<b>Required Theatre Courses</b>		
THEA:351	Advanced Ensemble Theatre Lab	3
THEA:433	Theatre Organization & Production Management	3
THEA:455	Creating Performance	3
THEA:467	Multi-Cultural Theatre	3
<b>Conflict Transformation and Social Entrepreneurship Certificate</b>		
ANTH:460	Field Methods in Cultural Anthropology	4
POLIT:334	Law, Mediation, and Violence	3
POLIT:333	Social Entrepreneurship	3
	or ENTRE:301 New Venture Creation	
SOCIO:490	Organizations, Community, and Social Action	3
Experiential Learning Component <sup>1</sup>		3
<b>Total Hours</b>		<b>28</b>

<sup>1</sup> Internship or Service Learning Project can be completed in any department with director's approval.

## Electives

Code	Title	Hours
<b>Select 18 credits of Free Electives</b>		<b>18</b>
<b>Total Hours</b>		<b>18</b>

## English

### Statement of Policies—Admission and Graduation

For students enrolled at The University of Akron and for students wishing to transfer directly into Buchtel College of Arts and Sciences from other institutions, the following criteria must be satisfied for admission to the Department of English:

- The student must be admissible to the Buchtel College of Arts and Sciences
- The student must have a minimum grade point average of 2.20 in all university coursework

In order to graduate with an English major, the following requirements must be satisfied:

- The student must achieve a grade of C- or higher in all these required courses:

Code	Title	Hours
ENGL:300	Critical Reading & Writing	3
ENGL:301	English Literature I	3
ENGL:315	Shakespeare: The Early Plays	3
	or ENGL:316 Shakespeare: The Mature Plays	
ENGL:341	American Literature I	3
ENGL:371	Introduction to Linguistics	3
ENGL:492	Senior Seminar	3

- The student must earn a cumulative grade point average of 2.20 in English courses

- Creative Writing, Minor (p. 149)
- English, BA (p. 150)
- English, Minor (p. 152)
- Linguistic Studies, Certificate (p. 152)
- Popular Literature and Film, Minor (p. 153)
- Teaching English as a Second Language, Certificate (p. 154)

## English (ENGL)

### ENGL:110 English Composition I + Workshop (4 Credits)

Prerequisite: Placement. Extensive and varied experience in developing writing skills, with practice in expressive, reflective, and analytic forms of writing. Includes one credit, support-intensive workshop. (Formerly 3300:110)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing First Course

### ENGL:111 English Composition I (3 Credits)

Extensive and varied experience in developing writing skills, with practice in expressive, reflective, and analytic forms of writing. (Formerly 3300:111)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing First Course



**ENGL:112 English Composition II (3 Credits)**

Prerequisite: ENGL 110 or ENGL 111 or ENGL 113. Designed to develop skills in analyzing and writing persuasive arguments. (Formerly 3300:112)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing Second Course

**ENGL:113 African American Language and Culture I: College Composition (3 Credits)**

Discussion, argumentation, and writing related to African American culture and language. An option to ENGL 111 English Composition I. Open to all students. (Formerly 3300:113)

**ENGL:114 African American Language and Culture II: College Composition (3 Credits)**

Prerequisites: ENGL 110 or ENGL 111 or ENGL 113. Composition and discussion topics focus on the structure, history, and culture of African American English. An option to ENGL 112 English Composition II. Open to all students. (Formerly 3300:114)

**ENGL:120 Writing and Editing (1 Credit)**

Examination of the editing process of writing. Focuses on developing a clear, effective, and correct professional writing style appropriate for academic and business documents. (Formerly 2020:120)

**ENGL:123 Writing for Presentations (1 Credit)**

A writing intensive course that focuses on the rhetorical and theoretical challenges and considerations of effective presentations. (Formerly 2020:123)

**ENGL:216 Collaborative Writing (1 Credit)**

Prerequisite: ENGL 111 or equivalent. A writing course that focuses on strategies and techniques for successful collaborative writing in the workplace. (Formerly 2020:216)

**ENGL:220 Writing and Research (1 Credit)**

Prerequisite: ENGL 111 or equivalent. Practical examination of writing effectively and professionally about primary and secondary research sources in the student's choice of several citation methods. (Formerly 2020:220)

**ENGL:222 Technical Report Writing (3 Credits)**

Prerequisite: ENGL 110 or ENGL 111 or equivalent. Prepares students to write the types of reports most often required of technicians, engineers, and scientists. Includes types of reports, memoranda, and letters; techniques of research, documentation and oral presentations. (Formerly 3300:222)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing Second Course

**ENGL:224 Writing for Advertising (3 Credits)**

Prerequisite: ENGL 111 or equivalent. Introduction to the copywriter's role in print, broadcast, and Web advertising. Study of advertising language; practice in writing advertisements and producing collateral copywriting materials. (Formerly 2020:224)

**ENGL:226 Electronic Reference Resources in the Computer Age (3 Credits)**

Prerequisite: ENGL 111. Designed for individuals to broaden their scope and understanding of various electronic research techniques. Study, evaluation, and use of current and emerging technologies will be examined. (Formerly 2020:226)

**ENGL:227 Writing for the World Wide Web (3 Credits)**

Prerequisite: ENGL 111 or equivalent, and familiarity with Internet (or attend Computer Center training seminar) knowledge of word processing software. Introductory course examines spoken and written contexts merging into one "writing space"; provides writing theory and practice for effective e-mail, newsgroup, chat, and web site writing. (Formerly 2020:227)

**ENGL:250 Classic & Contemporary Literature (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, and HIST 210 or HIST 221, or permission of the instructor. Close reading and analysis of fiction, poetry, and drama from the evolving canon of American, British, and World literature. This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English. (Formerly 3300:250)

**ENGL:252 Shakespeare & His World (3 Credits)**

Prerequisite: ENGL 112 or equivalent. An introduction to the works of Shakespeare and their intellectual and social contexts. Each section "places" Shakespeare through compact readings of works by the playwright's contemporaries. This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English. (Formerly 3300:252)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**ENGL:275 Specialized Writing (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. (May be repeated for different topics, with permission) Principles and practice of style, structure and purpose in writing, with special applications to writing demands of a specific career area. (Formerly 3300:275)

**ENGL:276 Introduction to Creative Nonfiction Writing (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112. This course introduces the techniques of Creative Nonfiction through writing exercises that give experience with the form. (Formerly 3300:276)

**ENGL:277 Introduction to Poetry Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112. Practice in writing poems. Study of techniques in poetry, using contemporary poems as models. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing. (Formerly 3300:277)

**ENGL:278 Introduction to Fiction Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112. Practice in writing short stories. Study of various techniques in fiction, using contemporary stories as models. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing. (Formerly 3300:278)

**ENGL:279 Introduction to Script Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112. Practice in writing scripts. Study of various techniques in script writing, using contemporary models for study. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing. (Formerly 3300:279)

**ENGL:280 Poetry Appreciation (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Close reading of a wide selection of British and American poems with emphasis on dramatic situation, description, tone, analogical language, theme and meaning. (Formerly 3300:280)

**ENGL:281 Fiction Appreciation (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents. Close reading of modern masters of short story and novel. Fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English. (Formerly 3300:281)

**Gen Ed:** - Humanities

**ENGL:283 Film Appreciation (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course. Introduction to dramatic choices made by filmmakers in scripting, directing, editing and photographing narrative films; and qualities of reliable film reviews. (Formerly 3300:283)

**Gen Ed:** - Arts

**ENGL:290 Special Topics: Associate Studies (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in associate studies. (Formerly 2020:290)

**ENGL:300 Critical Reading & Writing (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. An introduction to English studies, focusing on critical methods for reading and writing about literature, with attention to research skills and uses of computer technology. (Formerly 3300:300)

**ENGL:301 English Literature I (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Studies in English literature from Old English to 1800, with emphasis upon specific representative works and upon the cultural and intellectual background which produced them. Literature to be read will include both major and minor poetry, prose and drama. (Formerly 3300:301)

**ENGL:315 Shakespeare: The Early Plays (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Introduction to early drama of Shakespeare with close reading of tragedies, histories and comedies. Includes explanatory lectures of both the plays and their backgrounds. (Formerly 3300:315)

**ENGL:316 Shakespeare: The Mature Plays (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Study of Shakespeare's plays after 1598, beginning with mature comedies. Concentration on major tragedies and romances. (Formerly 3300:316)

**ENGL:325 Signs of Professional Writing (1 Credit)**

Prerequisite: ENGL 111 or equivalent. Practical examination of concrete and abstract indicators that lead readers to judge the professional quality of a written text beyond its meaning and correctness. (Formerly 2020:325)

**ENGL:341 American Literature I (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Historical survey of major and minor American writers to 1865. (Formerly 3300:341)

**ENGL:350 Black American Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, or permission of the instructor. Survey of representative black American writers from the 19th Century to present, with particular attention to historical and social backgrounds. (Formerly 3300:350)

**Gen Ed:** - Domestic Diversity

**ENGL:360 Old Testament As Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. History of Hebrews to 586 B.C., as revealed through epic, fiction, saga and poetry, viewed against background of the Asian World. (Formerly 3300:360)

**ENGL:361 The New Testament and Apocrypha as Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. These two bodies of literature read with emphasis on form of gospel and epistle, and concept of apocalypse. Both are viewed against their historical and social backgrounds. (Formerly 3300:361)

**ENGL:362 World Literatures (3 Credits)**

The course is a study of short fiction, poems, plays, and novels of the non-Western world from early antiquity to the present. (Formerly 3300:362)

**Gen Ed:** - Global Diversity

**ENGL:364 Women Writers (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or permission of instructor. A study of the diverse voices of female experiences through literature written by women. (Formerly 3300:364)

**ENGL:366 European Background of English Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. Representative continental texts from Homer to Cervantes, selected both for their excellence and for their important influence on English and American literature. (Formerly 3300:366)

**ENGL:367 The Rhetoric of God (3 Credits)**

Addresses the nature of language and the purpose of rhetoric as applied to the possibility/impossibility of transcendence. Fulfills General Education Global Diversity requirement. (Formerly 3300:367)

**Gen Ed:** - Global Diversity

**ENGL:371 Introduction to Linguistics (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level English course or permission. Scientific introduction to the study of written and spoken linguistic behavior in English. History of English, varieties of English, and acquisition of English also introduced. (Formerly 3300:371)

**ENGL:376 Legal Writing (3 Credits)**

Prerequisite: Completion of ENGL 112 or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. Intensive practice in writing for prelaw students through assignments based on actual legal situations and real cases. Particular attention to stating legal issues, writing persuasively, applying rules of law, and other topics that will help those preparing for law school and the profession. (Formerly 3300:376)

**ENGL:377 Advanced Poetry Writing (3 Credits)**

Prerequisites: ENGL 277, ENGL 111 and ENGL 112. Advanced practice in writing poems, emphasis on shaping publishable works. Survey of market. Class discussion of student poems; individual conference with instructor. (Formerly 3300:377)

**ENGL:378 Advanced Fiction Writing (3 Credits)**

Prerequisites: ENGL 278, ENGL 111 and ENGL 112. Advanced practice in writing short stories, emphasis on shaping publishable works. Survey of market. Class discussion of student stories; individual conference with instructor. (Formerly 3300:378)

**ENGL:379 Advanced Script Writing (3 Credits)**

Prerequisites: ENGL 112 and ENGL 279. This course focuses on writing for the screen and developing the visual imagination. (Formerly 3300:379)

**ENGL:380 Film Criticism (3 Credits)**

Prerequisite: ENGL 112 or any 200-, 300- or 400-level English course. Application of literary critical theory to the study of film. (Formerly 3300:380)

**ENGL:381 Advanced Creative Nonfiction Writing (3 Credits)**

Prerequisite: ENGL 276. This course advances student practice in the craft of Creative Nonfiction through writing exercises and workshop sessions. (Formerly 3300:381)

**ENGL:389 Special Topics: Literature & Language (3 Credits)**

Prerequisite: Completion of ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course. (May be repeated for credit as different topics are offered). Traditional and nontraditional topics in English literature and language, supplementing course listed in this General Bulletin, generally constructed around theme, genre and language study. (Formerly 3300:389)

**ENGL:390 Professional Writing I (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level English course, or permission of the instructor. Designed to help prepare student for a career as professional business writer. Stresses theory and practice of written and oral communication in business organization. Individual and group performance, relating to communication theories, concepts of semantics. Functional writing as well as special needs of business are illustrated by actual cases. Adapting style and organization is practiced. (Formerly 3300:390)

**ENGL:391 Professional Writing II (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level English course, or permission of the instructor. Designed to help prepare student for a career as professional technical writer. Covers principles and practices concerning editing company technical communications, such as specifications, annual reports, promotional brochures for technical products, services, scientific abstracts, proposals. Also treats problems of adapting materials to formats, graphic display of technical information, adaptation of technical material to nontechnical reader. (Formerly 3300:391)

**ENGL:392 Internship in English (1-3 Credits)**

Prerequisite: Minimum GPA of 2.5, permission of the instructor. (May be repeated for a maximum of six credits.) Critical reading and writing focused on career applications of the discipline of English. May count up to three credit hours toward the English major. (Formerly 3300:392)

**ENGL:399 The Gothic Imagination (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course. A loosely chronological study of major British, American, and European authors in the Gothic tradition. Focus on the literary conventions of Gothic fiction, to the "popular" nature of the literature and to its major themes/motifs. (Formerly 3300:399)

**ENGL:400 Anglo Saxon (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level English course, Junior or greater standing, or permission of the instructor. Studies in Old English language and Old English prose and poetry, including Beowulf. (Formerly 3300:400)

**ENGL:403 Development of the Arthurian Legend (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Traces evolution of Arthurian materials from 540 to 1500 and beyond, with emphasis on characters, themes, events and treatments. (Formerly 3300:403)

**ENGL:406 Chaucer (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Close study of Chaucer's major works The Canterbury Tales and Troilus and Criseyde in Middle English. (Formerly 3300:406)

**ENGL:407 Middle English Literature (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112, 64 credits or permission. Study of genres, topics, styles and writers of the Middle English literary works from 12th to 15th Centuries. Readings in Middle English. (Formerly 3300:407)

**ENGL:424 Early English Fiction (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112, 64 credits or permission. Development of English novel before 1830. Focus on works of Defoe, Richardson, Fielding, Smollett, Sterne, Austen and Scott. (Formerly 3300:424)

**ENGL:425 Studies in Romanticism (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Literary, philosophical, psychological and social revolutions of romantic period as reflected in works of such major writers as Wordsworth, Byron and Keats. (Formerly 3300:425)

**ENGL:430 Victorian Poetry & Prose (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Poetry, prose of the late 19th Century, excluding fiction, with attention to Tennyson, Browning, Arnold, Carlyle, Ruskin and other major writers. (Formerly 3300:430)

**ENGL:431 Victorian Fiction (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Reading of at least five major novels of Victorian era, of varying length, by Emily Bronte, Dickens, Eliot, Thackeray and Hardy. Characterization, theme and attitude toward life emphasized. (Formerly 3300:431)

**ENGL:435 20th Century British Poetry (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Concentrated study of major poems of Yeats, Eliot and Auden, with attention also to Hardy, Housman, Spender, C. Day Lewis, Dylan Thomas and others. (Formerly 3300:435)

**ENGL:436 British Fiction: 1900-1925 (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of Conrad, Joyce, D. H. Lawrence and Virginia Woolf, with attention to their innovations in narrative and style, their psychological realism and symbolism. Brief consideration of other important fiction writers of the period, including Wells, Bennett and Mansfield. (Formerly 3300:436)

**ENGL:437 British Fiction Since 1925 (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of important British novelists since 1925, excluding Lawrence, Joyce and Woolf. Attention to development of British short story from 1925 to present. (Formerly 3300:437)

**ENGL:440 Women and Film (3 Credits)**

Prerequisites: [ENGL 111 and ENGL 112] or any 200-, 300- or 400-level English course and Junior or greater standing. This course explores representations of the feminine and treatments of gender issues in mainstream Hollywood films within a critical framework of feminist film theory. (Formerly 3300:440)

**ENGL:448 American Romantic Fiction (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Examination of early American fiction, tracing its genesis, romantic period and germinal movements toward realism. Writers discussed include Cooper, Poe, Hawthorne and Melville. (Formerly 3300:448)

**ENGL:449 American Fiction: Realism & Naturalism (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Examination of American writers of realistic and naturalistic fiction (e.g., Howells, James, Crane, Dreiser), tracing developments in American fiction against background of cultural and historical change. (Formerly 3300:449)

**ENGL:450 Modern American Fiction (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of significant American short and long fiction from World War I to the present. (Formerly 3300:450)

**ENGL:451 American Poetry to 1900 (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of the instructor. Survey of American poetry of the 17th, 18th and 19th Centuries. (Formerly 3300:451)

**ENGL:452 Modern American Poetry (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission, and junior or greater standing. Survey of 20th Century American poetry beginning with Edwin Arlington Robinson and ending with contemporary poets. (Formerly 3300:452)

**ENGL:453 American Women Poets (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of modern poets' uses and revisions of tradition, women's relationships, conceptions of art and of the artist-as-woman, and the debate between "public" and "private" poetry. (Formerly 3300:453)

**ENGL:454 20th Century American Drama (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Examination of major, established playwrights (including O'Neill, Miller and Williams) and sampling of new and rising ones. (Formerly 3300:454)

**ENGL:455 The American Short Story (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. A study of the development of the short story as a particularly American genre, from Washington Irving to the present. (Formerly 3300:455)

**ENGL:456 Thoreau, Emerson, and Their Circle (3 Credits)**

Prerequisite: Junior or greater standing or permission. A study of work and life of Henry David Thoreau, Ralph Waldo Emerson, and other key figures of the American Renaissance. (Formerly 3300:456)

**ENGL:457 Writers on Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112 and Junior standing. A close look at what established writers have to say about the process of writing. Students write response essays and take exams on readings. (Formerly 3300:457)

**ENGL:460 Film and Literature (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of instructor. Analysis of literary texts and their film adaptations. Emphasis on genre, structure, and visual elements as counterparts to written texts. (Formerly 3300:460)

**ENGL:466 Linguistics and Language Arts (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, and a minimum of Junior standing or higher, or permission of the instructor. Foundation course in linguistics with pedagogical implications for second language learners. Fundamental topics (morphology, syntax, semantics, phonetics, pragmatics) and related topics (sociolinguistics, contrastive analysis) covered. (Formerly 3300:466)

**ENGL:467 Modern European Fiction (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200- or 300- or 400-level English course, Junior or greater standing, or permission. Representative European writers from about 1850 to present, in translation. Focus on fiction of such writers as Dostoyevsky, Gide, Camus, Mann, Kafka and Kundera. (Formerly 3300:467)

**ENGL:468 International Poetry (3 Credits)**

Prerequisite: ENGL 112 or equivalent, 64 credits or permission of instructor. Junior standing. This survey of world poetry focuses on the stylistic concerns and social consequences of literature from Latin America, Africa, Asia, Europe, and beyond. (Formerly 3300:468)

**ENGL:469 Eros & Love in Early Western Literature (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. An analysis of the use of sex and love in the literature of the Western World from Greco-Roman times to 1800, with special emphasis on how sexuality and "romantic" love are used as allegorical, satiric, fantastic or realistic devices. (Formerly 3300:469)

**ENGL:470 History of English Language (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level English course, and a minimum of Junior standing or higher, or permission of the instructor. Development of English language, from its beginnings: sources of its vocabulary, its sounds, its rules; semantic change; political and social influences on changes; dialect origins; correctness. (Formerly 3300:470)

**ENGL:471 U.S. Dialects: Black & White (3 Credits)**

Prerequisites: ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course or equivalent, Junior or greater standing, or permission of the instructor. Study of differences in pronunciation, vocabulary and grammar among U.S. language varieties. Origins, regional and social dimensions are explored. Correctness, focusing on black English and Appalachian speech, explored. (Formerly 3300:471)

**ENGL:472 Syntax (3 Credits)**

Prerequisite: [ENGL 371 and ENGL 112] or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level English course or their equivalents, minimum of Junior standing or higher, or permission of the instructor. Principles of syntactic description. Sentence structures are investigated from a variety of languages, with emphasis on English. (Formerly 3300:472)

**ENGL:473 Theoretical Foundations and Principles of ESL (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course and a minimum of Junior standing or higher, or permission. Second language acquisition theories and teaching methodologies surveyed. Second language teaching principles from research in linguistics, psycholinguistics, and second language pedagogy explored. (Formerly 3300:473)

**ENGL:474 African American English (3 Credits)**

Prerequisite: 64 credits or permission. Junior standing. African American English grammatical structure, pronunciations, origins, and cultural role. Comparisons with academic English. Discussion of language correctness, legal status, and role in education. (Formerly 3300:474)

**ENGL:475 Theory of Rhetoric (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of the instructor. Ancient and modern theories of rhetoric, with attention to classical oration, "topics" of rhetoric and their application to teaching of English. (Formerly 3300:475)

**ENGL:477 Sociolinguistics (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, or permission of the instructor. Major sociolinguistic concepts and methodology examined, as well as relationships between language, socio-cultural factors, and education. Issues of Standard English, power, and gender also examined. (Formerly 3300:477)

**ENGL:478 Grammatical Structures of Modern English (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, and a minimum of Junior standing or higher, or permission of the instructor. Contemporary understanding of Modern English sentence structure: parts of speech, sentence types, phrase types, modification, coordination and subordination, parentheticals. Traditional grammar and sentence rhetoric discussed. (Formerly 3300:478)

**ENGL:479 Management Reports (3 Credits)**

Prerequisites: ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course or equivalent, and a minimum of Junior standing or higher, or permission. Study of principles and writing practice in effective business style, specialized structure, and purpose for business reports. (Formerly 3300:479)

**ENGL:482 Senior Honors Project in English (1-3 Credits)**

(May be repeated for a total of six credits). Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor, senior standing in Honors College and approval of honors preceptor; open only to English majors enrolled in Honors College. Independent study leading to completion of senior honors thesis or other original work. (Formerly 3300:482)

**ENGL:484 Fantasy (3 Credits)**

Prerequisites: [ENGL 111 and ENGL 112] or any or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. A study of forms of literature, primarily fiction, based on and controlled by an overt violation of what is generally considered as possibility. (Formerly 3300:484)

**ENGL:485 Science Fiction (3 Credits)**

Prerequisite: 64 credits or permission. Junior standing. A study of twentieth-century British and American science fiction, featuring primary forms of the science fiction story and the work of major authors. (Formerly 3300:485)

**ENGL:486 Learner English (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, or permission of the instructor. Introduction to tools for and practice in analyzing second language learners' production of English. Theory and practice of teaching oral and written English also covered. (Formerly 3300:486)

**ENGL:487 Field Experience: Teaching Second Language Learners (3 Credits)**

Prerequisite: Permission of instructor. Practical experience in which second language teachers-in-training observe, participate in, and practice teaching under the supervision of the instructor and/or an experienced, certified teacher. (Formerly 3300:487)

**ENGL:489 Seminar in English (2-3 Credits)**

Prerequisite: ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course or equivalent, and a minimum of Junior standing or higher, or permission. (May be repeated with different topics.) Special studies, and methods of literary research, in selected areas of English and American literature and language. (Formerly 3300:489)

**ENGL:490 Workshop in English (1-3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of the instructor. (May be repeated with different topics) Group studies of special topics in English. Cannot be used to meet undergraduate or graduate major requirements in English; for elective credit only. (Formerly 3300:490)

**ENGL:492 Senior Seminar (3 Credits)**

Discussion of select literary topic and reflection on student development in the major. Requires independent research and reflection papers. Limited to senior English majors. (Formerly 3300:492)

**ENGL:498 Independent Study in English (1-3 Credits)**

Prerequisite: completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission. Directed study in a special field of interest chosen by student in consultation with instructor. (Formerly 3300:498)

## Creative Writing, Minor

### Minor in Creative Writing (330007M)

The Creative Writing Minor allows students to develop their skills in four areas of writing: Creative Nonfiction, fiction, poetry, and script writing.

**Program Contact**

*Prof. Lisa Rhoades*

*Professor of Instruction, Department of English*

*330-972-8556*

*rhoades@uakron.edu*

The following information has official approval of the **Department of English** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Creative Writing" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Creative Writing may only be awarded at the time a student receives a baccalaureate degree. If a student desires a minor from the same department/school as their major, there is a college requirement for a minimum of nine (9) non-overlapping credits between the minor and the major, as well as between the minor and other minor programs in the department/school. The following English courses are not accepted for any English minors:

- ENGL:111 English Composition I
- ENGL:112 English Composition II
- ENGL:250 Classic & Contemporary Literature
- ENGL:252 Shakespeare & His World
- ENGL:281 Fiction Appreciation

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
ENGL:457	Writers on Writing	3
<b>Select two of the following:</b>		<b>6</b>
ENGL:276	Introduction to Creative Nonfiction Writing	
ENGL:277	Introduction to Poetry Writing	
ENGL:278	Introduction to Fiction Writing	
ENGL:279	Introduction to Script Writing	
<b>Select at least one of the following:</b>		<b>3</b>
ENGL:377	Advanced Poetry Writing	
ENGL:378	Advanced Fiction Writing	
ENGL:379	Advanced Script Writing	
ENGL:381	Advanced Creative Nonfiction Writing	
Total Hours		12

## Electives

Code	Title	Hours
<b>Select two additional courses in any form of creative writing or literature at the 300 or 400 level</b> <sup>1</sup>		<b>6</b>
ENGL 3xx	300-level Creative Writing or Literature Elective	
ENGL 4xx	400-level Creative Writing or Literature Elective	
Total Hours		6

<sup>1</sup> The following courses taken to fulfill specific requirements in the English major cannot also be used to fulfill the 18 hours requirement in this minor: ENGL:300 Critical Reading & Writing, ENGL:301 English Literature I, ENGL:315 Shakespeare: The Early Plays, ENGL:316 Shakespeare: The Mature Plays, ENGL:341 American Literature I, and one course in world or multicultural literature.

## English, BA

### Bachelor of Arts in English (330000BA)

More on the English major (<https://www.uakron.edu/english/academics/undergraduate/majors.dot>)

Our course of study of literature, language, rhetoric, and creative writing fosters the development of critical thinking, skilled communication, appreciation of cultural contexts, informed citizenship, and knowledge of the various literary texts representing human thought and inquiry through the centuries. Students majoring in English studies go on to become successful professionals in their chosen fields. Graduates have taken the department's reputation into the world outside the campus gates and hold careers ranging from positions in successful law practices, to jobs as published authors, technical writers, and journalists.

#### Program Contact

Prof. Lisa Rhoades

Professor of Instruction, Department of English

330-972-8556

rhoades@uakron.edu

The following information has official approval of **The Department of English and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
College of Arts & Sciences Requirements		14
English Core		18
Distribution Requirements		3
400 Level Course Requirements		9
English Electives		18
Additional Credits for Graduation *		24
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.2 cumulative GPA in all ENGL courses is required for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		

Domestic Diversity
Global Diversity
<b>Integrated and Applied Learning</b>
<i>Select one class from one of the following subcategories:</i>
Complex Issues Facing Society
Capstone
<i>Review the General Education Requirements page for detailed course listings.</i>
Total Hours

34

## College of Arts & Sciences Requirements

Code	Title	Hours
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Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.

<i>Foreign Language</i>	14
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101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## English Core <sup>1</sup>

Code	Title	Hours
ENGL:300	Critical Reading & Writing	3
ENGL:301	English Literature I	3
ENGL:315	Shakespeare: The Early Plays	3
or ENGL:316	Shakespeare: The Mature Plays	
ENGL:341	American Literature I	3
ENGL:371	Introduction to Linguistics	3
or ENGL:400	Anglo Saxon	
or ENGL:470	History of English Language	
ENGL:492	Senior Seminar	3
Total Hours		18

<sup>1</sup> Students must achieve a grade of C- or higher in all core courses

## Distribution Requirements

Code	Title	Hours
<b>Complete one course in the following subcategory:</b>		
World or multicultural literature outside the canon of British and American Writers		3
Total Hours		3

## 400-Level Course Requirements

Code	Title	Hours
<b>Complete three 400 Level courses:</b>		
ENGL 4xx		3
ENGL 4xx		3
ENGL 4xx		3
Total Hours		9

## English Electives

Code	Title	Hours
<b>18 credits <sup>1</sup></b>		<b>18</b>
Total Hours		18

<sup>1</sup> Includes Distribution Requirements and 400 Level courses

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
COMM:105 Introduction to Public Speaking or COMM:106 or Effective Oral Communication	3
Beginning Language I	4
Quantitative Reasoning Requirement	3
Arts or Humanities Requirement	3
Hours	16

### Spring Semester

ENGL:112 English Composition II	3
Beginning Language II	4
Natural Science Requirement	3
Social Science Requirement	3
Arts or Humanities Requirement	3
Hours	16

### 2nd Year

Fall Semester	Hours
ENGL:300 Critical Reading & Writing <sup>1</sup>	3
ENGL:341 American Literature I	3
Intermediate Language I	3
Arts or Humanities Requirement	3
Social Science Requirement	3
Hours	15

### Spring Semester

ENGL:278 Introduction to Fiction Writing	3
ENGL:301 English Literature I	3
ENGL:315 Shakespeare: The Early Plays or ENGL:316 or Shakespeare: The Mature Plays	3
Intermediate Language II	3
Natural Science Requirement with Lab	4
Hours	16

### 3rd Year

Fall Semester	Hours
ENGL:279 Introduction to Script Writing	3
ENGL:350 Black American Literature <sup>2</sup>	3

ENGL:362	World Literatures <sup>3</sup>	3
ENGL:371	Introduction to Linguistics	3
	4xx English Elective	3
Hours		15
<b>Spring Semester</b>		
ENGL:276	Introduction to Creative Nonfiction Writing	3
ENGL:379	Advanced Script Writing	3
ENGL:425	Studies in Romanticism	3
ENGL:450	Modern American Fiction	3
	4xx English Elective	3
Hours		15
<b>4th Year</b>		
<b>Fall Semester</b>		
ENGL:381	Advanced Creative Nonfiction Writing	3
ENGL:457	Writers on Writing	3
ENGL:460	Film and Literature	3
	4xx English Elective	3
	Complex Systems Requirement	3
Hours		15
<b>Spring Semester</b>		
ENGL:378 or ENGL:379	Advanced Fiction Writing or Advanced Script Writing	3
ENGL:364	Women Writers	3
ENGL:492	Senior Seminar	3
	4xx English Elective	3
Hours		12
Total Hours		120

<sup>1</sup> Fulfills Tier 3 Critical Thinking tag

<sup>2</sup> Fulfills Tier 3 Domestic Diversity tag

<sup>3</sup> Fulfills Tier 3 Global Diversity tag

## English, Minor

### Minor in English (330000M)

#### Program Contact

*Prof. Lisa Rhoades*

*Professor of Instruction, Department of English*

330-972-8556

rhoades@uakron.edu

The following information has official approval of the **Department of English** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in English" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in English may only be awarded at the time a student receives a baccalaureate degree. If a student desires a minor from the same department/school as their major, there is a college requirement for a minimum of nine (9) non-overlapping credits between the minor and the major, as well as between the minor

and other minor programs in the department/school. The following English courses are not accepted for any English minors:

- ENGL:111 English Composition I
- ENGL:112 English Composition II
- ENGL:250 Classic & Contemporary Literature
- ENGL:252 Shakespeare & His World
- ENGL:281 Fiction Appreciation

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Electives		18
Total Hours		18

## Electives

Code	Title	Hours
<b>Select at least 6 credits from the English Department at the 300 or 400 level</b>		<b>6</b>
ENGL 3xx	300-level English courses	
ENGL 4xx	400-level English courses	
<b>Select 12 additional credits from the English Department</b>		<b>12</b>
ENGL 1xx	100-level English courses	
ENGL 2xx	200-level English courses	
ENGL 3xx	300-level English courses	
ENGL 4xx	400-level English courses	
Total Hours		18

## Linguistic Studies, Certificate

### Certificate in Linguistic Studies (330008C)

Completion of five linguistically oriented courses is required as follows: the foundation course, two core courses and at least two elective courses. Three or more of the courses must be at the 300/400 level. (Subject to approval by the program director, other theoretically oriented linguistics courses may substitute for core courses.)

To obtain the certificate, a student must have at least two semesters of language. A student entering the program should discuss plans with the director.

#### Program Contact

*Dr. Grace Zhang*

*Associate Professor, Department of English*

330-972-5216

wz23@uakron.edu

The following information has official approval of the **Department of English** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.



The following courses constitute a “Certificate in Linguistic Studies” and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student’s record. To obtain the certificate, the student must have at least two semesters of a second language. A student entering the program should discuss plans with the director. Completion of six linguistically oriented courses is required as follows: the foundation course, two core courses and at least three elective courses. Three or more of the courses must be at the 300/400 level.

## Summary

Code	Title	Hours
Foundational Course		3
Core Requirements		6
Electives		6
Total Hours		15

## Foundational Course

Code	Title	Hours
ENGL:371	Introduction to Linguistics	3
or ENGL:466	Linguistics and Language Arts	
Total Hours		3

## Core Requirements

Code	Title	Hours
<b>Complete 2 of the following courses:</b>		<b>6</b>
ENGL:470	History of English Language	
ENGL:477	Sociolinguistics	
ENGL:478	Grammatical Structures of Modern English	
PHIL:481	Philosophy of Language	
SLPA:230	Language Science & Acquisition	
SLPA:430	Aspects of Normal Language Development	
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 2 courses from the following:</b>		<b>6</b>
ANTH:101	Human Cultures	
ANTH:251	Human Diversity	
ENGL:400	Anglo Saxon	
ENGL:473	Theoretical Foundations and Principles of ESL	
CPSC:430	Theory of Programming Languages	
CPSC:440	Compiler Design	
CPSC:460	Artificial Intelligence & Heuristic Programming	
SPAN:403	Advanced Grammar	
PHIL:170	Introduction to Logic	
PHIL:374	Symbolic Logic	
PHIL:418	20th Century Analytic Philosophy	
PHIL:471	Metaphysics	
POLIT:402	Politics and the Media	
POLIT:403	Media, Crime and Public Opinion	
COMM:325	Intercultural Communication	
SLPA:101	American Sign Language I	

SLPA:210	Introduction to Clinical Phonetics	Hours
Total Hours		6

Note: Three or more courses must be at the 300/400-level.

## Popular Literature and Film, Minor Minor in Popular Literature & Film (330009M)

### Program Contact

*Prof. Lisa Rhoades*  
Professor of Instruction, Department of English  
330-972-8556  
rhoades@uakron.edu

The following information has official approval of the **Department of English** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Minor in Popular Literature & Film” and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student’s record. A minor in Popular Literature & Film may only be awarded at the time a student receives a baccalaureate degree. If a student desires a minor from the same department/school as their major, there is a college requirement for a minimum of nine (9) non-overlapping credits between the minor and the major, as well as between the minor and other minor programs in the department/school. The following English courses are not accepted for any English minors:

- ENGL:111 English Composition I
- ENGL:112 English Composition II
- ENGL:250 Classic & Contemporary Literature
- ENGL:252 Shakespeare & His World
- ENGL:281 Fiction Appreciation

The following courses taken to fulfill specific requirements in the English Major cannot also be used to fulfill the 18 hours requirement in this minor:

- ENGL:300 Critical Reading & Writing
- ENGL:301 English Literature I
- ENGL:315 Shakespeare: The Early Plays
- ENGL:316 Shakespeare: The Mature Plays
- ENGL:341 American Literature I
- one course in world or multicultural literature.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Popular Literature or Film Electives		12
Additional Electives		6
Total Hours		18

## Popular Literature or Film Electives

Code	Title	Hours
<b>Select 12 credits of the following:</b>		<b>12</b>
ENGL:380	Film Criticism	
ENGL:389	Special Topics: Literature & Language <sup>1</sup>	
ENGL:399	The Gothic Imagination	
ENGL:440	Women and Film	
ENGL:460	Film and Literature	
ENGL:484	Fantasy	
ENGL:485	Science Fiction	
ENGL:489	Seminar in English <sup>2</sup>	
Total Hours		12

## Additional Electives

Code	Title	Hours
<b>Select 6 credits of the following (or any courses that were not already selected from above):</b>		<b>6</b>
ENGL:283	Film Appreciation	
ENGL:350	Black American Literature	
ENGL:362	World Literatures	
ENGL:364	Women Writers	
ENGL:435	20th Century British Poetry	
ENGL:436	British Fiction: 1900-1925	
ENGL:437	British Fiction Since 1925	
ENGL:450	Modern American Fiction	
ENGL:452	Modern American Poetry	
ENGL:453	American Women Poets	
ENGL:454	20th Century American Drama	
ENGL:455	The American Short Story	
ENGL:457	Writers on Writing	
ENGL:468	International Poetry	
Total Hours		6

<sup>1</sup> For ENGL:389 Special Topics: Literature & Language, choose between American Noir, Detective Fiction, Popular Culture, Stephen King, Jewish Women in Literature, Modern Jewish Novel, AfroAmerican Novel, Literary Ohio.

<sup>2</sup> For ENGL:489 Seminar in English, choose between 20th Century Irish Drama, 20th Century Women Writers, Harlem Renaissance, Holocaust Literature, International Short Story, New Fiction, American Literature Since Civil War, Jewish American Literature, New Poetry, Women's Writing/Lives, Literature of the Occult, Contemporary Gothic Women Writers.

## Teaching English as a Second Language, Certificate

### Certificate in Teaching English as a Second Language (330003C)

This program is intended for both native and non-native speakers of English who seek training in the teaching of English as a second language (ESL) and wish to obtain an initial qualification to teach ESL/EFL (English as a foreign language) in educational settings other than

public schools in Ohio or in countries outside the United States. For Ohio qualification in teaching ESL in the Ohio public school system, see the TESOL Endorsement requirements in this bulletin under the College of Education.

This program is designed to introduce the student to central issues in the theory and practice of teaching English to non-native speakers through courses in modern and applied linguistics, in second language pedagogy, and in related disciplines.

#### Program Contact

*Dr. Grace Zhang*  
Associate Professor, Department of English  
330-972-5216  
wz23@uakron.edu

The following information has official approval of the **Department of English** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Teaching English as a Second Language" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. This program is intended for those who seek training in the teaching of English as a second language (ESL) at the elementary or high school level or who wish to obtain an initial qualification in teaching ESL in order to teach in settings other than the Ohio public school system. For Ohio certification in teaching ESL, see TESOL Validation requirements at [www.uakron.edu/achieve/tesol.dot](http://www.uakron.edu/achieve/tesol.dot) (<http://www.uakron.edu/achieve/tesol.dot>). Students who do not have English as a native language must demonstrate adequate proficiency in English with a valid TOEFL score of at least 550. The awarding of this certificate is not contingent upon completion of a degree program.

## Summary

Code	Title	Hours
Core Requirements		12
Electives		3-4
Total Hours		15-16

## Core Requirements

Code	Title	Hours
ENGL:371	Introduction to Linguistics	3
or ENGL:466	Linguistics and Language Arts	
ENGL:470	History of English Language	3
or ENGL:477	Sociolinguistics	
ENGL:473	Theoretical Foundations and Principles of ESL	3
ENGL:478	Grammatical Structures of Modern English	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select one of the following:</b>		<b>3-4</b>
ENGL:470	History of English Language	
ENGL:477	Sociolinguistics	

ENGL:487	Field Experience: Teaching Second Language Learners
SPAN:403	Advanced Grammar
EDCI:456	Scaffolding Language and Content Learning for English Learners
EDCI:485	Teaching Literacy to English Learners
EDCI:487	Techniques of Teaching English as a Second Language
COMM:325	Intercultural Communication
SLPA:230	Language Science & Acquisition
SLPA:430	Aspects of Normal Language Development
Total Hours	3-4

## Geosciences

Geoscientists focus on problems related to how the Earth works, and our students are given opportunities to build the skills necessary for understanding the Earth System. Through a variety of field and laboratory experiences, our curriculum emphasizes hands-on learning. Students may find employment opportunities in the Earth resources field, environmental consulting, the government sector, or a variety of other career paths.

## Transfer to College of Arts & Sciences

Students should apply to the college upon the attainment of:

- a cumulative GPA of 2.0 or better (includes transfer coursework until 30 credits are earned at UA)
- a major GPA of 2.0 or better (includes transfer coursework until 30 credits are earned at UA)
- 30 credits completed including both required English composition courses and 3 credits of mathematics or statistics that meets the General Education requirement

Students can arrange inter-college transfers through an appointment with their academic advisor; advisor contact information is listed in "My Akron."

## Placement

A student is encouraged to check with his/her major department and with the Career Center, Student Union 211, (330) 972-7747, regarding employment opportunities in the field.

## College of Arts & Sciences

Degree requirements in Arts and Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language or sign language and a minimum of 40 credits of 300/400 level courses (excluding workshops) consisting of either:

- Upper level (300/400) courses both in and outside the student's major
- Any courses outside the major department as specified in and approved by the student's major department chair (permission should be obtained prior to enrollment) except workshops

## Geology Websites

- For careers in Geoscience visit: <http://www.earthscienceworld.org>
- Ask-a-Geologist at <http://walrus.wr.usgs.gov/ask-a-geologist/>
- Geological Survey at <http://www.usgs.gov>

- Association of American State Geologists at <https://www.stategeologists.org/>
- Link to other geology websites: <http://www.uakron.edu/colleges/artsci/depts/geology/links.php>

## Geosciences Contact

Dr. David Steer  
122 Crouse Hall  
330-972-2099  
[steer@uakron.edu](mailto:steer@uakron.edu)

- Environmental Studies, Certificate (p. 158)
- Geology, BS (p. 159)
- Geology, Earth Science, BA (p. 160)
- Geology, Environmental Science, BA (p. 162)

## Geology (GEOL)

### GEOL:100 Earth Science (3 Credits)

Introduction to earth science for non-science majors. Survey of earth in relation to its physical composition, structure, history, atmosphere, oceans; and relation to solar system and universe. (Formerly 3370:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

### GEOL:101 Introductory Physical Geology (4 Credits)

A study of the nature of earth, its materials, and the processes which continue to change it. Laboratory, field trips. (Formerly 3370:101)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### GEOL:102 Introductory Historical Geology (4 Credits)

Prerequisite: GEOL 101 or [GEOL 104 and GEOL 211] or permission. Geologic history of earth, succession of major groups of plants and animals interpreted from rocks, fossils. Laboratory, field trips. (Formerly 3370:102)

**Gen Ed:** - Natural Science w/LAB

### GEOL:103 Natural Science: Geology (3 Credits)

Study of basic principles and investigative techniques in various fields of geology with emphasis on relationship of geologic processes to society. (Formerly 3370:103)

### GEOL:104 Exercises in Physical Geology (1 Credit)

Prerequisite: GEOL 100 or GEOL 103 or GEOL 200 or GEOL 211 or permission of geology adviser. Laboratory exercises on the identification of earth materials and the utilization and interpretation of geologic data and maps. (Formerly 3370:104)

### GEOL:105 Geology for Engineers (3 Credits)

Introduction of physical geology to engineers, including mechanics, hydraulics and case studies that illustrate interactions between geology and engineering. Laboratory, field trips. (Formerly 3370:105)

### GEOL:121 Dinosaurs (1 Credit)

Introductory course exploring the geological occurrence, mode of fossilization, evolutionary development, habits, and sudden extinction of the largest known land vertebrates. (Formerly 3370:121)

**Gen Ed:** - Natural Science

### GEOL:122 Mass Extinctions & Geology (1 Credit)

Catastrophic changes in plants and animals have occurred throughout earth history. The causes of these extinctions have sparked debate which has enlivened the scientific world. (Formerly 3370:122)

**Gen Ed:** - Natural Science

**GEOL:125 Earthquakes: Why, Where, When? (1 Credit)**

Causes and effects of earthquakes, geological settings for earthquakes, seismic measurements, mechanical response of rock to stress, earthquake prediction and precautionary measures. (Formerly 3370:125)

**GEOL:126 Natural Disasters & Geology (1 Credit)**

A study of the earth's natural hazards including earthquakes, landslides, meteorites and tsunamis. (Formerly 3370:126)

**GEOL:127 The Ice Age & Ohio (1 Credit)**

Introductory course covering the effects of the ice age on the geology, vegetation, fauna and economy of Ohio. (Formerly 3370:127)

**GEOL:128 Geology of Ohio (1 Credit)**

Survey of Ohio's geologic setting and history, natural resources, landforms, and their significance in terms of human activity, from early settlement to future economy. (Formerly 3370:128)

**GEOL:129 Medical Geology (1 Credit)**

Abundance and distribution of trace elements in surface and groundwater, soils and rocks. The effects of trace elements to health through dose-response relationships. (Formerly 3370:129)

**GEOL:130 Geologic Record of Climate Change (1 Credit)**

Examines evidence for natural climate changes in geologic past and evaluates the role of modern society in influencing future climate. (Formerly 3370:130)

**Gen Ed:** - Natural Science

**GEOL:132 Gemstones & Precious Metals (1 Credit)**

Introduction to minerals which form gemstones and precious metals. Topics to be covered include physical properties, geologic occurrences, and geographic locations of major deposits. (Formerly 3370:132)

**GEOL:133 Caves (1 Credit)**

Topics include: karst processes and the origin of caverns; carbonate depositional environments and the origin of limestones; environmental problems associated with karst landscapes (Formerly 3370:133)

**Gen Ed:** - Natural Science

**GEOL:134 Hazardous & Nuclear Waste Disposal (1 Credit)**

Disposition of hazardous waste in secured landfill site. Geologic factors which determine the selection of low-level and high-level radioactive waste sites. (Formerly 3370:134)

**GEOL:135 Geology of Energy Resources (1 Credit)**

Topics include the origin of hydrocarbon and coal deposits, global distribution of energy resources, environmental impact of energy consumption. (Formerly 3370:135)

**Gen Ed:** - Natural Science

**GEOL:137 Earth's Atmosphere & Weather (1 Credit)**

Structure and composition of the atmosphere; earth's radiation budget; atmospheric moisture, clouds and precipitation; weather systems and storms, severe weather, Ohio weather. (Formerly 3370:137)

**Gen Ed:** - Natural Science

**GEOL:139 Current Topics in Geology (1 Credit)**

(May be repeated for up to 2 credits.) Special topics offered once or only occasionally in areas where no formal course exists. (Formerly 3370:139)

**GEOL:140 Rocky Mountain National Parks (1 Credit)**

Badlands, Yellowstone, Grand Canyon and other Rocky Mountain National Parks will be used to illustrate basic principles of geology. (Formerly 3370:140)

**GEOL:141 Natural Environment of China (1 Credit)**

Introduction to geographical and geological environments of China. Geography and geology of geoparks will be presented and discussed as examples (Formerly 3370:141)

**GEOL:171 Introduction to the Oceans (3 Credits)**

Provides a basic introduction to the oceans. Topics include formation of the oceans, ocean circulation, waves and tides, marine animals, marine communities, and climate change. (Formerly 3370:171)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**GEOL:200 Environmental Geology (3 Credits)**

Analysis of geologic aspects of the human environment with emphasis on geologic hazards and environmental impact of society's demand for water, minerals and energy. (Formerly 3370:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**GEOL:201 Exercises in Environmental Geology I (1 Credit)**

Pre/Corequisite: GEOL 200. Recognition, and evaluation of environmental problems related to geology through laboratory exercises and demonstrations which apply concepts discussed in introductory geoscience courses. Laboratory. (Formerly 3370:201)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**GEOL:203 Exercises in Environmental Geology II (1 Credit)**

Prerequisite: GEOL 201. Pre/Corequisite: GEOL 200. Recognition and evaluation of environmental problems related to geology. (Continuation of 201) Laboratory. (Formerly 3370:203)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**GEOL:211 Introduction to Environmental Science (3 Credits)**

Interdisciplinary analysis of our relationship with nature and dependence upon the environment, with emphasis on evaluation of current environmental problems and rational solutions. (Formerly 3370:211)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**GEOL:230 Mineral Science (4 Credits)**

Prerequisite: GEOL 101 or [GEOL 104 and GEOL 211]. Corequisites: CHEM 151 and CHEM 152. Crystallography and chemistry of minerals. Topics also covered include physical, chemical and optical properties, occurrences and uses of the common non silicate minerals. Laboratory, field trips. (Formerly 3370:230)

**Gen Ed:** - Natural Science w/LAB

**GEOL:231 Silicate Mineralogy and Petrology (4 Credits)**

Prerequisites: [GEOL 101 and GEOL 230] or appropriate test score. Corequisites: CHEM 151 and CHEM 152. Physical and chemical properties, occurrence, and uses of common silicate minerals, followed by megascopic and microscopic identification, classification, and petrogenesis of rocks. Laboratory. (Formerly 3370:231)

**GEOL:301 Engineering Geology (3 Credits)**

Prerequisite: GEOL 101 or [GEOL 100 and GEOL 104] or [GEOL 104 and GEOL 211] or permission of instructor. Presents quantitative analysis of geologic features and processes and is supported by the study of case histories. Lecture, lab, field study, field trips. (Formerly 3370:301)

**GEOL:310 Geomorphology (3 Credits)**

Prerequisite: GEOL 101 or [GEOL 100 and GEOL 104] or [GEOL 104 and GEOL 211]. Study of landforms as a function of structure, process, and time. Laboratory, field trips. (Formerly 3370:310)

**GEOL:324 Sedimentation & Stratigraphy (4 Credits)**

Prerequisite: GEOL 102. Introduction to sedimentary processes and environments; stratigraphic principles and techniques. Hand specimens, thin sections, and sedimentary sequences studied. Laboratory, field trips. (Formerly 3370:324)

**GEOL:350 Structural Geology (4 Credits)**

Prerequisite: GEOL 101 or [GEOL 100 and GEOL 104] or [GEOL 104 and GEOL 211]. Origins and characteristics of folds, faults, joints and rock cleavage. Structural features of sedimentary, igneous and metamorphic rocks. Laboratory, field trips. (Formerly 3370:350)

**GEOL:355 Contemporary Issues in Environmental Science (3 Credits)**

Prerequisite: GEOL 100, GEOL 101, or GEOL 211. Advanced interdisciplinary analysis of our relationship with nature and dependence upon the environment, with emphasis on evaluation of current environmental problems and rational solutions. (Formerly 3370:355)

**GEOL:360 Paleobiology (4 Credits)**

Prerequisite: GEOL 101 or BIOL 111. Introductory course emphasizing morphology and evolution of major invertebrate groups with consideration of practical applications of paleontology. Laboratory, field trips. (Formerly 3370:360)

**GEOL:371 Oceanography (4 Credits)**

Prerequisite: GEOL 101. Study of the dominant feature of our planet, the oceans, emphasizing ocean basins evolution, and physical, chemical and biological processes in the various marine environments. Field trips. (Formerly 3370:371)

**GEOL:405 Archaeological Geology (3 Credits)**

Prerequisite: GEOL 101. Provides background in geologic principles and techniques relevant to archaeologists. Topics include stratigraphy, absolute dating, locality assessment, zooarchaeology, taphonomy, and remote sensing. Laboratory, field trips. (Formerly 3370:405)

**GEOL:407 Archaeogeophysical Survey (3 Credits)**

Prerequisites: ANTH 110 or GEOL 101 or GEOG 310. Advanced instruction in subsurface geophysical survey techniques in archaeology. Emphasis on magnetic gradiometry and electrical resistivity techniques, image processing and geological and archaeological interpretation. (Formerly 3370:407)

**GEOL:410 Regional Geology of North America (3 Credits)**

Prerequisites: GEOL 101 and GEOL 102. Examination of physiographic provinces of North America emphasizing structure, tectonic setting, stratigraphy and processes responsible for landforms in each province. Laboratory, field trips. (Formerly 3370:410)

**GEOL:411 Glacial Geology (3 Credits)**

Causes and effects of Pleistocene expansion of polar ice masses with emphasis on glacial deposits and world climatic changes. Laboratory, field trips. (Formerly 3370:411)

**GEOL:421 Coastal Geology (3 Credits)**

Prerequisites: GEOL 101 and GEOL 324, or permission of instructor. Study of the origins and evolution of coasts and coastal deposits with particular attention paid to the interaction of waves and currents with sediment, and the development of associated sedimentary features. Field trips. (Formerly 3370:421)

**Gen Ed:** - Complex Issues Facing Society

**GEOL:425 Principles of Sedimentary Basin Analysis (3 Credits)**

Prerequisites: GEOL 324 and GEOL 360, or permission. Primarily the study of depositional systems, regional and global stratigraphic cycles, and sedimentation and plate tectonics. (Formerly 3370:425)

**GEOL:432 Optical Mineralogy - Introductory Petrology (3 Credits)**

Prerequisites: GEOL 230 and GEOL 231. Optical techniques for identification, characterization, and classification of minerals and rocks using the petrographic microscope. Laboratory. (Formerly 3370:432)

**GEOL:433 Advanced Petrology (3 Credits)**

Prerequisite: GEOL 432. Petrogenesis of igneous, metamorphic and sedimentary rocks as determined by microscopic studies of textures and mineral assemblages using thin sections. Laboratory. (Formerly 3370:433)

**GEOL:435 Petroleum Geology (3 Credits)**

Prerequisite: GEOL 350. Natural occurrences of petroleum. Characteristics, origin, entrapment and exploration methods. Laboratory, field trips. (Formerly 3370:435)

**GEOL:436 Coal Geology (3 Credits)**

Prerequisites: GEOL 101 and GEOL 102. Origin, composition and occurrence of coal with emphasis on depositional environments, coalification processes, exploration, evaluation and exploitation. Laboratory, field trips. (Formerly 3370:436)

**GEOL:437 Economic Geology (3 Credits)**

Prerequisites: GEOL 231 and GEOL 350. Study of metallic and nonmetallic mineral deposits emphasizing paragenesis and exploration. Laboratory, field trips. (Formerly 3370:437)

**GEOL:441 Fundamentals of Geophysics (3 Credits)**

Prerequisites: MATH 223 or permission and PHYS 292. Fundamental concepts in solid earth geophysics, planetary physics, geodesy, and geomagnetism. Contributions of geophysics to recent major developments in geoscience. (Formerly 3370:441)

**GEOL:443 Rivers (3 Credits)**

Prerequisite: Permission of department. Study of the geologic and environmental aspects of river systems and related human impacts. Includes mandatory, 0 credit weekend field work. (Formerly 3370:443)

**Gen Ed:** - Complex Issues Facing Society

**GEOL:444 Environmental Magnetism (3 Credits)**

Prerequisite: GEOL 101 or permission. Introduction to the theory and methods of environmental magnetism and the application of environmental magnetism to interpreting sedimentary deposits. (Formerly 3370:444)

**GEOL:445 Environmental and Engineering Geophysics (3 Credits)**

Prerequisite: PHYS 261 or PHYS 291 or permission of instructor. Corequisite: PHYS 262 or PHYS 292 or permission of instructor. Basic subsurface exploration using ground penetrating radar and multi-channel electrical resistivity. Applications in environmental assessment, civil engineering and geotechnical engineering. Field trips. (Formerly 3370:445)

**GEOL:446 Exploration Geophysics (3 Credits)**

Prerequisites: MATH 223 and PHYS 292. Basic principles and techniques of geophysical exploration with emphasis on gravimetric, magnetic, seismic and electrical methods and application to geological problems. Laboratory, field trips. (Formerly 3370:446)

**GEOL:449 Borehole Geophysics (3 Credits)**

Basic principles and techniques of geophysical well logging with emphasis on electrical, radioactive, and sonic measures and their quantitative evaluation. Applications in oil, gas, and groundwater exploration. Laboratory. (Formerly 3370:449)

**GEOL:450 Advanced Structural Geology (3 Credits)**

Prerequisite: GEOL 350. Fundamental and advanced concepts of structural geology with emphasis on current and developing concepts. Laboratory, field trips. (Formerly 3370:450)

**GEOL:451 Field/Lab Studies in Environmental Science (3 Credits)**

Field/Laboratory inquiry into a specific interdisciplinary, environmental science topic. Students complete a research project involving collecting, analyzing and interpreting real world data. (May be repeated once.) (Formerly 3370:451)

**GEOL:452 Geology and Environmental Science Service Learning (1-3 Credits)**

Prerequisite: Permission of instructor. Team service-learning project that involves collection, organization, analysis, and presentation of data. Field trips. (May be repeated for a maximum of four credits.) (Formerly 3370:452)

**Gen Ed:** - Complex Issues Facing Society

**GEOL:453 Geology Field Camp I (3 Credits)**

Prerequisites: GEOL 101, GEOL 102, and permission of instructor. Introduction to collection and interpretation of field data and construction of geologic maps. Student will bear trip expenses. (Formerly 3370:453)

**GEOL:454 Geology Field Camp II (3 Credits)**

Prerequisites: GEOL 231, GEOL 350, GEOL 453, and permission of instructor. Advanced techniques and methods of field geology necessary for detailed geological maps and interpretation. Student will bear trip expenses. (Formerly 3370:454)

**GEOL:455 Field Studies in Geology (1-3 Credits)**

Field trip course emphasizing aspects of geology not readily studied in Ohio. Includes pre-trip preparation and post-trip examination. Student will bear trip expenses. (May be repeated for a total of four credits.) (Formerly 3370:455)

**GEOL:462 Macroevolution (3 Credits)**

Prerequisites: GEOL 360 or BIOL 111. Provides a comprehensive treatment of macroevolutionary theory, focusing on evidence from the fossil record. Topics include genetics, speciation, development, and fossil lineages. Laboratory. (Formerly 3370:462)

**GEOL:463 Environmental Micropaleontology (3 Credits)**

Prerequisite: GEOL 360. Introduction to techniques of micropaleontology as proxy indicators for environmental and climate change. Laboratory. Field trips. (Formerly 3370:463)

**GEOL:465 Geomicrobiology (3 Credits)**

Prerequisites: CHEM 151 and CHEM 153. A course addressing the physiology, ecology, and activities of microorganisms that mediate important biogeochemical processes, and the interdisciplinary approaches to studying them. (Formerly 3370:465)

**GEOL:470 Geochemistry (3 Credits)**

Prerequisites: GEOL 101, GEOL 230, CHEM 151, and CHEM 152. Application of chemical principles to the study of geologic processes. Laboratory, field trips. (Formerly 3370:470)

**GEOL:472 Stable Isotope Geochemistry (3 Credits)**

Prerequisites: GEOL 101, GEOL 102, CHEM 151, CHEM 152, CHEM 153, and MATH 221. Application of stable isotope geochemistry to the study of hydrologic and carbon cycles, modern sedimentary environments, and the interpretation of sedimentary rocks. (Formerly 3370:472)

**GEOL:474 Groundwater Hydrology (3 Credits)**

Prerequisite: GEOL 101 or [GEOL 104 and GEOL 211]. Origin, occurrence, regimen and utilization of groundwater. Qualitative and quantitative presentation of geological and geochemical aspects of groundwater hydrology. Laboratory, field trips. (Formerly 3370:474)

**GEOL:480 Seminar in Environmental Studies (2 Credits)**

Discussion of specific environmental topic(s) from an interdisciplinary viewpoint; resource persons are drawn from the University and surrounding community. (Formerly 3370:480)

**GEOL:481 Analytical Methods in Geology (2 Credits)**

Prerequisites: GEOL 230 and GEOL 231. A survey of analytical methods used to solve geologic problems with emphasis on method selection, proper sample collection, analysis of data quality and data presentation. (Formerly 3370:481)

**GEOL:484 Geoscience Research & Consulting Methods (2 Credits)**

Prerequisite: Must be a Geology Department graduate student or senior major in Geology, or have permission of instructor. Methods for finding, gathering, managing, and evaluating geoscience information. Emphasis on finding data sources (including electronic), creating valid data sets, visualizing data. (Formerly 3370:484)

**GEOL:485 Individual Readings in Geology and Environmental Science (1-3 Credits)**

Prerequisite: Permission of instructor. (May be repeated for a total of 4 credits) Independent study and directed readings on a selected topic to fit an individual student's program. (Formerly 3370:485)

**GEOL:490 Workshop in Geology and Environmental Science (1-4 Credits)**

Group studies of special topics in geology and environmental science. May not be used to meet undergraduate major requirements in the Department. May be used for elective credit only. (May be repeated for up to 4 credits.) (Formerly 3370:490)

**GEOL:491 Internship in Geology and Environmental Science (1-3 Credits)**

Prerequisite: Permission of Department Chair. Supervised professional experience in geology or environmental science. Only three credits may be applied toward a degree in geology. (May be repeated for a total of six credits.) (Formerly 3370:491)

**GEOL:497 Honors Project in Geology (1-3 Credits)**

(May be repeated for a total of six credits.) Prerequisite: permission of department honors preceptor, Honors student only. Exploration of research topics and issues in geology. Selection of research topic and writing of research paper in proper scholarly form under direction of faculty member. (Formerly 3370:497)

**GEOL:498 Special Topics in Geology (1-3 Credits)**

Prerequisite: Permission of instructor. Special lecture courses offered once or only occasionally in areas where no formal course exists. (Formerly 3370:498)

**GEOL:499 Research Problems in Geology (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission. Independent research leading to the completion of a written paper or presentation at a professional meeting.

## Environmental Studies, Certificate

### Certificate in Environmental Studies (337004C)

**Program Contact**

*Dr. Ira Sasowsky*  
Professor, Geosciences  
330-972-5389  
ids@uakron.edu

The following information has official approval of the **Department of Geosciences** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many

factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Environmental Studies" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. To qualify for the certificate program, students must request admission to the program by completing the certificate application form. Contact the Director of the Center for Environmental Studies to develop a program including the core requirements to fulfill remaining electives. To satisfy the requirements, a student must complete the core courses and 11 credits from the list of elective courses or other courses identified as acceptable by the director. Elective courses will be selected from outside the student's academic major.

## Summary

Code	Title	Hours
Required Courses		5
Electives		11
Total Hours		16

## Required Courses

Code	Title	Hours
GEOL:211	Introduction to Environmental Science	3
GEOL:480	Seminar in Environmental Studies	2
Total Hours		5

## Electives

Code	Title	Hours
<b>Electives must be completed from a minimum of three departments and approved by the Director.</b>		11
XXXX:XXX	Electives	
Total Hours		11

## Geology, BS

### Bachelor of Science in Geology (337000BS)

More on the Geology major (<https://www.uakron.edu/geology/academics/undergraduate/geology-program.dot>)

The following information has official approval of **The Department of Geosciences** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Students are encouraged to visit The Department of Geosciences their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

Students are encouraged to visit The Department of Geosciences their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

1st Year		Hours
Fall Semester		
GEOL:101	Introductory Physical Geology	4
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
	English Composition I Requirement <sup>2</sup>	3
	Speech/Oral Communication Requirement	3
Select one of the following:		3-4
	Beginning Language I <sup>3</sup>	
SLPA:101	American Sign Language I	
Hours		17-18

Spring Semester		Hours
GEOL:102	Introductory Historical Geology	4
MATH:222	Analytic Geometry-Calculus II	4
	English Composition II Requirement <sup>2</sup>	3
Select one of the following:		3-4
	Beginning Language II <sup>3</sup>	
SLPA:102	American Sign Language II	
Hours		14-15

2nd Year		Hours
Fall Semester		
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
GEOL:230	Mineral Science	4
HIST:210	Humanities in the Western Tradition from	3
or HIST:221	Ancient Times to 1500	
	or Humanities in the World since 1300	
Select one of the following:		3
	Intermediate Language I	
SLPA:201	American Sign Language III	
Hours		14

Spring Semester		Hours
CHEM:153	Principles of Chemistry II	3
GEOL:231	Silicate Mineralogy and Petrology	4
	Humanities Requirement	3
	Social Science Requirement <sup>4</sup>	2-4
Select one of the following:		3-5
	Intermediate Language II	
SLPA:202	American Sign Language IV	
& SLPA:222	and Survey of Deaf Culture in America	
Hours		15-19

**3rd Year****Fall Semester**

GEOL:350	Structural Geology	4
PHYS:291	Elementary Classical Physics I	4
GEOL 3xx/4xx	Upper Level Geology Electives <sup>5</sup>	3
	Humanities Requirement	3
	Hours	14

**Spring Semester**

GEOL:324	Sedimentation & Stratigraphy	4
GEOL:360	Paleobiology	4
PHYS:292	Elementary Classical Physics II	4
GEOL 3xx/4xx	Upper Level Geology Electives <sup>5</sup>	3
	Social Science Requirement <sup>4</sup>	3
	Hours	18

**Summer Semester**

GEOL:453	Geology Field Camp I	3
GEOL:454	Geology Field Camp II	3
	Hours	6

**4th Year****Fall Semester**

GEOL 3xx/4xx	Upper Level Geology Electives <sup>5</sup>	3
GEOL 3xx/4xx	Upper Level Geology Electives <sup>5</sup>	4
	Domestic Diversity Requirement	2
	Upper Level Electives <sup>6</sup>	4
	Hours	13

**Spring Semester**

	Global Diversity Requirement	2
	Upper Level Electives <sup>6</sup>	12
	Hours	14
	Total Hours	125-131

<sup>1</sup> All Geology majors should take the Math Placement Test. The BS requirement is MATH:221 Analytic Geometry-Calculus I and MATH:222 Analytic Geometry-Calculus II

<sup>2</sup> For English Composition I, ENGL:111 English Composition I or ENGL:113 African American Language and Culture I: College Composition are the recommended classes to the meet the General Education English requirement. For English Composition II, ENGL:112 English Composition II or ENGL:114 African American Language and Culture II: College Composition are the recommended classes to the meet the General Education English requirement. ENGL:222 Technical Report Writing fulfills the English Composition II requirement.

<sup>3</sup> Demonstration of ability to use another language by completion of the second year of a foreign language or sign language is required. See your advisor for placement. Please note that all four semesters must be completed in the SAME language and it's recommended you begin your first language class as soon as possible.

<sup>4</sup> GEOG:100 Introduction to Geography is strongly recommended to meet the Social Sciences general education requirement.

<sup>5</sup> A total of 13 Geology electives at the 300/400 level is required. Please contact a Department of Geology adviser to discuss alternatives.

<sup>6</sup> General electives can be any course not already required by your major and Upper Level (300/400) electives can be any course in or outside your major excluding General Education courses and workshops.

**Alert**

1. By the end of your first 48 credit hours attempted, you must have completed your General Education English, Math, and Communications (Speech) requirements
2. By the end of your first 48 credit hours attempted, you must have declared a major and transferred to (been accepted by) a degree granting college at The University of Akron.

## Geology, Earth Science, BA

### Bachelor of Arts in Geology, Earth Science (337001BA)

More on the Geology, Earth Science major (<https://www.uakron.edu/geology/academics/undergraduate/>)

**Earth Science Fundamentals**

Earth scientists study earth materials, structures and processes and how they've changed through time. This knowledge may be applied to exploration for natural resources — including metals, petroleum and water; understanding natural hazards such as earthquakes, volcanoes and landslides; addressing problems associated with environmental contamination; and investigating Earth's history to understand the evolution of life and global climate change. Earth scientists are employed by natural resource companies, environmental consulting firms, government agencies, nonprofit organizations and universities.

Core courses provide the fundamentals in:

- physical and historical geology
- mineralogy and petrography
- structural geology and plate tectonics
- sedimentology, paleontology and stratigraphy

Degree program can be tailored to a major field of interest by taking additional courses in the supporting sciences and mathematics.

The following information has official approval of **The Department of Geosciences** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Students are encouraged to visit The Department of Geosciences their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

Students are encouraged to visit The Department of Geosciences their freshman year to obtain preliminary information regarding the program



requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

### 1st Year

Fall Semester		Hours
GEOL:101	Introductory Physical Geology <sup>1</sup>	4
	English Composition I Requirement <sup>2</sup>	3
	Social Sciences Requirement <sup>3</sup>	3
	Speech/Oral Communication Requirement	3
Select one of the following:		3-4
	Beginning Language I <sup>4</sup>	
SLPA:101	American Sign Language I	
Hours		16-17

### Spring Semester

GEOL:102	Introductory Historical Geology	4
MATH:149	Precalculus Mathematics <sup>5</sup>	4
	English Composition II Requirement <sup>2</sup>	3
Select one of the following:		3-4
	Beginning Language II <sup>4</sup>	
SLPA:102	American Sign Language II	
Hours		14-15

### 2nd Year

#### Fall Semester

CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
HIST:210 or HIST:221	Humanities in the Western Tradition from Ancient Times to 1500 or Humanities in the World since 1300	3
	Science Elective <sup>6</sup>	3
Select one of the following:		3
	Intermediate Language I	
SLPA:201	American Sign Language III	
Hours		13

#### Spring Semester

GEOL:231	Silicate Mineralogy and Petrology	4
	Science Elective <sup>6</sup>	4
	Domestic Diversity Requirement	2
Select one of the following:		3-5
	Intermediate Language II	
SLPA:202 & SLPA:222	American Sign Language IV and Survey of Deaf Culture in America	
Hours		13-15

### 3rd Year

#### Fall Semester

GEOL:350	Structural Geology	4
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	Humanities Requirement	3
GEOL xxx	Geology electives <sup>7</sup>	6
GEOL 3xx/4xx	Upper level Geology electives <sup>7,8</sup>	3-4
Hours		16-17

#### Spring Semester

GEOL:360	Paleobiology	4
	Social Science Requirement <sup>3</sup>	3
GEOL 3/4xx	Upper level Geology electives <sup>7,8</sup>	3-4
GEOL xxx	Geology electives	3
Hours		13-14

#### Summer Semester

GEOL:453	Geology Field Camp I	3
GEOL:454	Geology Field Camp II	3
Hours		6

### 4th Year

#### Fall Semester

GEOL 3/4xx	Upper level Geology electives <sup>7,8</sup>	3
	Humanities Requirement	3
GEOL xx	Geology electives	3
	Global Diversity Requirement	2
	Upper Level Electives <sup>8</sup>	2
Hours		13

#### Spring Semester

	Upper Level Electives <sup>8</sup>	16-10
Hours		16-10
Total Hours		120

- <sup>1</sup> GEOL:101 Introductory Physical Geology Strongly Preferred, **OR** GEOL:100 Earth Science, **OR** GEOL:200 Environmental Geology, **OR** (by permission only) GEOL:211 Introduction to Environmental Science, **AND** GEOL:104 Exercises in Physical Geology.
- <sup>2</sup> For English Composition I, ENGL:111 English Composition I or ENGL:113 African American Language and Culture I: College Composition are the recommended classes to meet the General Education English requirement. For English Composition II, ENGL:112 English Composition II or ENGL:114 African American Language and Culture II: College Composition are the recommended classes to meet the General Education English requirement. ENGL:222 Technical Report Writing fulfills the English Composition II requirement.
- <sup>3</sup> GEOG:100 Introduction to Geography and ANTH:110 Introduction to Archaeology recommended.
- <sup>4</sup> Demonstration of ability to use another language by completion of the second year of a foreign language or sign language is required. See your advisor for placement. Please note that all four semesters must be completed in the SAME language and it's recommended you begin your first language class as soon as possible.
- <sup>5</sup> All Geology majors should take the Math Placement Test. The B.A. requirement is MATH:149 Precalculus Mathematics.
- <sup>6</sup> B.A. degree requires completion of at least 7 credits from the following and these options can satisfy the upper level requirement for Arts & Sciences as well (300/400 level): BIOL:111 Principles of Biology I, BIOL:112 Principles of Biology II, CHEM:153 Principles of Chemistry II, PHYS:291 Elementary Classical Physics I/PHYS:292 Elementary Classical Physics II, MATH:221 Analytic Geometry-Calculus I, MATH:222 Analytic Geometry-Calculus II.

<sup>7</sup> A total of 18 departmental (GEOL) credits are required, eight of which must be at the 300/400 level. Please contact a Department of Geosciences adviser to discuss alternatives.

<sup>8</sup> **Buchtel College of Arts & Sciences (BCAS)** – requires **40 credits** at the 300/400 level. Please contact an adviser to determine how many additional 300/400 courses you need to complete this requirement.

## Alert

1. By the end of your first 48 credit hours attempted, you must have completed your General Education English, Math, and Communications (Speech) requirements
2. By the end of your first 48 credit hours attempted, you must have declared a major and transferred to (been accepted by) a degree granting college at The University of Akron.

## Geology, Environmental Science, BA Bachelor of Arts in Environmental Science (337004BA)

More on the Environmental Science major (<https://www.uakron.edu/geology/academics/undergraduate/environmental-science-program.dot>)

### Environmental Science Fundamentals

Environmental science is the study of society's relationship with the physical and biological world. This knowledge may be applied to understanding natural hazards such as earthquakes, volcanoes and landslides; addressing problems associated with environmental contamination; and investigating earth's history to understand the global climate change. Environmental scientists are employed by environmental consulting firms, government agencies, nonprofit organizations and universities.

Core courses provide the fundamentals in:

- physical geology
- biology
- chemistry

Degree program can be tailored to a major field of interest by taking additional courses in the supporting sciences and mathematics.

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Students are encouraged to visit The Department of Geosciences their freshman year to obtain preliminary information regarding the program

requirements and to learn more about on-campus opportunities available to students.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

#### 1st Year

Fall Semester		Hours
GEOL:101	Introductory Physical Geology <sup>1</sup>	4
	English Composition I Requirement <sup>2</sup>	3
	Speech/Oral Communication Requirement	3
	Social Science Requirement <sup>4</sup>	3
	Select one of the following:	3-4
	Beginning Language I	
SLPA:101	American Sign Language I <sup>3</sup>	
	Hours	16-17

#### Spring Semester

MATH:149	Precalculus Mathematics <sup>5</sup>	4
	English Composition II Requirement <sup>2</sup>	3
	Social Science Requirement <sup>4</sup>	3
	Select one of the following:	3-4
	Beginning Language II	
SLPA:102	American Sign Language II	
	Hours	13-14

#### 2nd Year

##### Fall Semester

HIST:210 or HIST:221	Humanities in the Western Tradition from Ancient Times to 1500 or Humanities in the World since 1300	3
BIOL:111	Principles of Biology I	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
	Select one of the following:	3
	Intermediate Language I	
SLPA:201	American Sign Language III	
	Hours	14

##### Spring Semester

GEOL:231	Silicate Mineralogy and Petrology	4
BIOL:112	Principles of Biology II	4
	Humanities Elective Requirement	3
	Area Studies/Cultural Diversity Requirement	2
	Select one of the following:	3-5
	Intermediate Language II	
SLPA:202 & SLPA:222	American Sign Language IV and Survey of Deaf Culture in America	
	Hours	16-18

**3rd Year****Fall Semester**

GEOL:452 or GEOL:453	Geology and Environmental Science Service Learning or Geology Field Camp I	1-3
	Humanities Requirement	3
GEOL 3/4xx	Upper level Geology electives <sup>6</sup>	6
GEOL 3/4xx	Upper level Science electives <sup>7</sup>	2
GEOL xxx	Geology elective <sup>6</sup>	3
	Hours	15-17

**Spring Semester**

GEOL:310	Geomorphology	3
xxxx:3/4xx	Upper level Science Elective <sup>7</sup>	3
GEOL 3/4xx	Upper level Geology electives <sup>6</sup>	9
	Hours	15

**Summer Semester**

GEOL:453 or GEOL:452	Geology Field Camp I or Geology and Environmental Science Service Learning	1-3
	Hours	1-3

**4th Year****Fall Semester**

	Area Studies/Cultural Diversity Requirement	2
xxxx:3/4xx	Upper level Science Elective <sup>7</sup>	3
xxxx:3/4xx	Upper level Electives <sup>7,8</sup>	3
	Electives <sup>8</sup>	5
	Hours	13

**Spring Semester**

GEOL 3/4xx	Upper level Geology electives <sup>6</sup>	3
	Upper level Electives <sup>7,8</sup>	5
	Electives <sup>8</sup>	8-0
	Hours	16-8
	Total Hours	119

<sup>1</sup> GEOL:101 Introductory Physical Geology Strongly Preferred, or GEOL:100 Earth Science, or GEOL:200 Environmental Geology or (by permission only) GEOL:211 Introduction to Environmental Science and GEOL:104 Exercises in Physical Geology.

<sup>2</sup> For English Composition I, ENGL:111 English Composition I or ENGL:113 African American Language and Culture I: College Composition are the recommended classes to meet the General Education English requirement. For English Composition II, ENGL:112 English Composition II or ENGL:114 African American Language and Culture II: College Composition are the recommended classes to meet the General Education English requirement. ENGL:222 Technical Report Writing fulfills the English Composition II requirement.

<sup>3</sup> Demonstration of ability to use another language by completion of the second year of a foreign language or sign language is required. See your advisor for placement. Please note that all four semesters must be completed in the **same** language and it's recommended you begin your first language class as soon as possible.

<sup>4</sup> Introduction to Geography and ANTH:110 Introduction to Archaeology recommended.

<sup>5</sup> All Geology majors should take the Math Placement Test. The B.A. requirement is MATH:149 Precalculus Mathematics.

<sup>6</sup> Departmental electives: at least 18 credits with a minimum of 11 credits at the 300/400 level. Up to 8 credits may be selected from the Environmental Studies Certificate electives list. Please contact a Department of Geology & Environmental Science adviser to discuss alternatives.

<sup>7</sup> B.A. degree requires completion of at least 8 credits from the following and these options can satisfy the upper level requirement for Arts & Sciences as well (300/400 level): BIOL:217 General Ecology, CHEM:153 Principles of Chemistry II, CHEM:154 Qualitative Analysis, PHYS:291 Elementary Classical Physics I/PHYS:292 Elementary Classical Physics II, MATH:221 Analytic Geometry-Calculus I, MATH:222 Analytic Geometry-Calculus II.

<sup>8</sup> General electives can be any course not already required by your major and Upper Level (300/400) electives can be any course in or outside your major excluding workshops.

**Alert**

- By the end of your first 48 credit hours attempted, you must have completed your General Education English, Math, and Communications (Speech) requirements;
- By the end of your first 48 credit hours attempted, you must have declared a major and transferred to (been accepted by) a degree granting college at The University of Akron.

**History****About the Department of History**

Students and faculty in the Department of History explore the forces that drove past events and shaped the present. Our faculty members have a wide range of teaching and research interests, from the ancient world to the recent past. We encourage students to design degree programs that enable them to both pursue their own historical interests and obtain a broader understanding of history across time and place.

The department offers nearly a dozen degree programs and certificates. Take a look around our website to learn more about our programs, scholarships, and career opportunities for students of history!

- Classical Studies, Minor (p. 169)
- History Asian Studies, Certificate (p. 170)
- History Middle Eastern Studies, Certificate (p. 170)
- History, BA (p. 171)
- History, Minor (p. 173)

**Classics (CLAS)****CLAS:230 Sports & Society in Ancient Greece and Rome (3 Credits)**

A multimedia survey of ancient Greek and Roman sports, from the Olympics to gladiatorial games, and their connection to ancient and modern society. (Formerly 3200:230)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**CLAS:289 Mythology of Ancient Greece (3 Credits)**

Myth, legend and folktale in ancient Greece, with attention to religion and the transmission of Greek myth to Rome and the West. No foreign language necessary. (Formerly 3200:289)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**CLAS:361 The Literature of Greece (3 Credits)**

Prerequisite: HIST 210 or HIST 221. Major writers of ancient Greece and their influence on later European literature. No foreign language necessary. Required of majors. (Formerly 3200:361)

**CLAS:362 The Literature of Rome (3 Credits)**

Major writers of ancient Rome and their influence on later European literature. No foreign language necessary. Required of majors. (Formerly 3200:362)

**CLAS:363 Women in Ancient Greece and Rome (3 Credits)**

Examine women's lives in ancient Greece and Rome. Read their poetry, see them in ancient theatre, art, and philosophy, and in modern art and film. (Formerly 3200:363)

**CLAS:480 Reading & Research in Classical Studies (1-3 Credits)**

Directed reading and research for individual and small group study in any recognized area of classical studies. (Formerly 3200:480)

**CLAS:499 Honors Project in Classics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and permission. Independent study leading to completion of a senior honors thesis under the supervision of a member of the Department of Classics. (Formerly 3200:499)

**CLAS:550 Select Topics: Ancient Cultures (3 Credits)**

(May be repeated with change of subject) Varied offerings in literature, art and archaeology and religion. No foreign language necessary. (Formerly 3200:550)

## History (HIST)

**HIST:200 Empires of the Ancient World (3 Credits)**

Comparative study of the formation of ancient empires of the Afro-Eurasian world up to the rise of Islam. (Formerly 3400:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities; - Global Diversity

**HIST:210 Humanities in the Western Tradition from Ancient Times to 1500 (3 Credits)**

Prerequisites: [ENGL 112 or ENGL 114 or ENGL 222] and sophomore or greater standing. Introduction to the human condition as manifested in ideas, religions, visual arts and music of Western civilization from ancient Mesopotamia and Egypt through the Italian Renaissance. Can be used to meet major requirements in History. (Formerly 3400:210)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**HIST:211 Humanities in the Western Tradition II (3 Credits)**

Prerequisite: HIST 210. Introduction to the human condition in the past as manifested in the ideas, religions, visual arts and music of Western civilization from the Protestant Reformation to the Present. Cannot be used to meet major requirements in History. (Formerly 3400:211)

**HIST:221 Humanities in the World since 1300 (3 Credits)**

Prerequisites: ENGL 112 or ENGL 114 or ENGL 222 and sophomore standing. Introduction to the human condition as expressed in the ideas, religions, visual arts, and music of the world since 1300. Cannot be used to meet major requirements in History. (Formerly 3400:221)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities; - Global Diversity

**HIST:250 U.S. History to 1877 (3 Credits)**

Historical survey from the Age of Discovery and North American colonization through the creation of the United States to the Civil War and Reconstruction. (Formerly 3400:250)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**HIST:251 U.S. History since 1877 (3 Credits)**

Survey of United States history from the end of Federal Reconstruction to the present. (Formerly 3400:251)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**HIST:285 World Civilizations: China (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:285)

**HIST:286 World Civilizations: Japan (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:286)

**HIST:287 World Civilizations: Southeast Asia (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:287)

**HIST:288 World Civilizations: India (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:288)

**HIST:289 World Civilizations: Middle East (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:289)

**HIST:290 World Civilizations: Africa (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:290)

**HIST:291 World Civilizations: Latin America (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:291)

**HIST:292 Global Societies: Africa (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in both World Civ: Africa and Global Societies: Africa. This course surveys the major social, economic, political, and cultural transformations in Africa, and explores interconnected global histories in on regional context. (Formerly 3400:292)

**Gen Ed:** - Global Diversity

**HIST:294 Global Societies: India (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in World Civilization and Global Societies. This course surveys the major social, economic, political, and cultural transformations in India, and explores interconnected global histories in one regional context. (Formerly 3400:294)

**Gen Ed:** - Global Diversity

**HIST:295 Global Societies: Japan (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in World Civilization: Japan and Global Societies: Japan. This course surveys the major social, economic, political and cultural transformations in Japan, and explores interconnected global histories in its regional context. (Formerly 3400:295)

**Gen Ed:** - Social Science; - Global Diversity

**HIST:296 Global Societies: Latin America (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in both World Civilizations: Latin America and Global Societies: Latin America. This course surveys the major social, economic, political, and cultural transformations in Latin America since 1492, and explores interconnected global histories in a regional context. (Formerly 3400:296)

**Gen Ed:** - Social Science; - Global Diversity

**HIST:297 Global Societies: Middle East (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in both World Civilizations: Middle East and Global Societies: Middle East. This course surveys the major social, economic, political, and cultural transformations in the Middle East, and explores interconnected global histories in a regional context. (Formerly 3400:297)

**Gen Ed:** - Social Science; - Global Diversity

**HIST:300 Imperial China (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. Selective study of institutional, intellectual, political and artistic developments in Chinese civilization from antiquity to 18th century. Emphasis on general features of traditional Chinese culture. (Formerly 3400:300)

**HIST:301 Modern China (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. This course examines the domestic and global roots of China's 20th century modernization and their relationship to the challenges China now faces. (Formerly 3400:301)

**HIST:303 Modern East Asia (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Exploration of domestic and global factors that shaped modern East Asia (Japan, China, Korea and Vietnam). (Formerly 3400:303)

**HIST:307 The Ancient Near East (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. Mesopotamia, Egypt; Israel, and neighbors to Persian Empire. (Formerly 3400:307)

**HIST:308 Greece (3 Credits)**

Prerequisite: Minimum of 32 credits or permission of the instructor. Minoans and Mycenaeans; classical Greece to triumph of Macedon. (Formerly 3400:308)

**HIST:310 Historical Methods (3 Credits)**

Introduction to historical research and writing. Required for history major. (Formerly 3400:310)

**HIST:313 Eastern Roman Empire (324-1453) (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Byzantine culture and history from 324 to the fall of 1453. (Formerly 3400:313)

**HIST:317 Roman Republic (3 Credits)**

Prerequisite: Sophomore or greater standing. An intensive survey of the Roman Republic. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like. (Formerly 3400:317)

**HIST:318 Roman Empire (3 Credits)**

Prerequisite: Minimum of 32 credits or permission of the instructor. An intensive survey of the Roman Empire. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like. (Formerly 3400:318)

**HIST:319 Medieval Europe, 500-1200 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Migration of peoples, Carolingian revival, renewed invasions; social, economic and intellectual stirrings lead to birth of Europe. (Formerly 3400:319)

**HIST:320 Medieval Europe, 1200-1500 (3 Credits)**

Prerequisite: Sophomore or greater standing. Middle Ages and the middle class; economic and political change, international wars, social unrest and religious crosscurrents. (Formerly 3400:320)

**HIST:321 Europe: Renaissance to Religious Wars, 1350-1610 (3 Credits)**

Prerequisite: A minimum academic standing of Sophomore or higher. Survey of the social, political, economic, religious, and intellectual history of Early Modern Europe from the Italian Renaissance to the early 17th century. (Formerly 3400:321)

**HIST:322 Europe: Absolutism to Revolution, 1610-1789 (3 Credits)**

Prerequisite: Sophomore standing or higher. Survey of the social, political, economic, religious, and intellectual history of Early Modern Europe from the Thirty Years War to the French Revolution. (Formerly 3400:322)

**HIST:323 Europe from Revolution to World War, 1789-1914 (3 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. Surveys the political, economic, social, and cultural history of modern Europe from the French Revolution to the First World War. (Formerly 3400:323)

**HIST:324 Europe from World War I to the Present (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. A survey of European political and social history from World War I to the present. (Formerly 3400:324)

**Gen Ed:** - Global Diversity

**HIST:325 Women in Modern Europe (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. A survey of the history of women in Europe since 1500, with emphasis on their roles and the changes attendant on modernization. (Formerly 3400:325)

**HIST:330 Modern Africa (3 Credits)**

This course will introduce major themes in modern African history, from the trans-Atlantic, slave trade, through the colonial and post-independence periods. (Formerly 3400:330)

**HIST:335 Russia to 1801 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of Russian history from Kievan period to death of Paul I, emphasizing development of autocratic government, Russian culture, reigns of Peter and Catherine. (Formerly 3400:335)

**HIST:336 Russia Since 1801 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of 19th and 20th centuries. Special emphasis on problems of modernization, the revolution and development of communism. (Formerly 3400:336)

**HIST:337 France from Napoleon to DeGaulle (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Combines a study of Napoleon and DeGaulle with a survey of the political, economic, social, and cultural/artistic trends of modern French history. (Formerly 3400:337)

**Gen Ed:** - Global Diversity

**HIST:338 England to 1688 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of English history from the Anglo-Saxon conquest to the Revolution of 1688. Medieval and early modern institutions, social and cultural life. (Formerly 3400:338)

**HIST:339 England Since 1688 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of English history from 1688 to the present. The reform of English institutions and life, modernization of the economy, the welfare state, society and war. (Formerly 3400:339)

**HIST:340 Selected Topics in History (3 Credits)**

Prerequisite: A minimum academic standing of Sophomore or higher. Includes experimental offerings such as those crossing subject of chronological lines, and subjects not listed in this General Bulletin. See departmental office for current subject. (Formerly 3400:340)

**HIST:341 Islamic Fundamentalism & Revolution (3 Credits)**

Prerequisite: Sophomore or greater standing. The political and socio-economic roots of Islamic reformism and militancy in the Middle East and North Africa since the 1960s. (Formerly 3400:341)

**HIST:342 The Crusades through Arab Eyes (3 Credits)**

Prerequisite: Sophomore or greater standing. Political and military struggles, diplomatic practices and intellectual traditions of the Medieval Islamic/Arab world and the Western crusaders. (Formerly 3400:342)

**HIST:345 Native North American History (3 Credits)**

Prerequisite: Minimum of 32 credits. The histories of Native Americans from Columbus to the present, emphasizing a half-millennium of adaptive responses to the presence of Europeans in North America. (Formerly 3400:345)

**HIST:350 U.S. Women's History (3 Credits)**

Prerequisite: a minimum of 32 credits History of American women's experiences and exploration of gender as a changing structure shaping American life from the colonial period through the 20th century. (Formerly 3400:350)

**Gen Ed:** - Domestic Diversity

**HIST:351 Global History: Encounters and Conflicts (4 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. This course explores historical encounters between societies to explain the development of the integrated economic, political, and cultural systems presently characterizing the modern world. (Formerly 3400:351)

**HIST:352 The American West (3 Credits)**

Prerequisite: A minimum of 32 credits. Examination of westward movement from revolution to closing of frontier; types of frontiers; impact of west on nation's development. (Formerly 3400:352)

**HIST:354 American Immigration (3 Credits)**

Prerequisite: A minimum of 32 credits. Examination of European migrants to American colonies and United States, their reasons for leaving Europe and coming to America, and their experience after arrival. (Formerly 3400:354)

**HIST:355 American Religious History (3 Credits)**

Prerequisite: A minimum of 32 credits. Addresses critical issues and figures in American religious history from the colonial era to present, including ways ideas have influenced political and judicial discourse. (Formerly 3400:355)

**HIST:356 Sports in American History Since 1865 (3 Credits)**

Prerequisite: A minimum of 32 credits. An examination of the reciprocal relationship between sports and various institutions of society: culture, religion, politics, education, economics, race, ethnicity, diplomacy and gender. (Formerly 3400:356)

**HIST:358 Urban America (3 Credits)**

Prerequisite: A minimum of 32 credits. This course looks at the significance of cities and urban development in shaping American society. (Formerly 3400:358)

**HIST:360 United States Military History (3 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. Survey of United States military history from the colonial era to the present. (Formerly 3400:360)

**HIST:361 African American History, 1492-1877 (3 Credits)**

Prerequisite: Sophomore or greater standing. This course focuses on African American history, culture and heritage from 1492 to 1877. (Formerly 3400:361)

**HIST:362 African American History, 1877 to Present (3 Credits)**

Prerequisite: Sophomore or greater standing. This course focuses on African American history, culture and heritage from 1877 to present. (Formerly 3400:362)

**HIST:363 African American Men's History and Studies (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. This course will examine the experiences of African American Men from historical, socio-economic, philosophical, religious/spiritual, and psychological standpoints. (Formerly 3400:363)

**HIST:371 Selected Topics: North American History (3 Credits)**

Prerequisite: Sophomore or greater standing. Selected topics addressing the history of North America (from the Rio Grande to the Arctic). Contact the department office concerning specific topics. (Formerly 3400:371)

**HIST:372 Selected Topics: European History (3 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. Selected topics addressing European history from the collapse of the Roman Empire to the present. Contact the department office concerning specific topics. (Formerly 3400:372)

**HIST:373 Selected Topics: Other (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. Selected historical topics on Africa, Asia, Latin America, the ancient world and world history. Contact the department office concerning specific topics. (Formerly 3400:373)

**HIST:377 History of Women in Latin America (3 Credits)**

Prerequisite: A minimum of Sophomore or greater standing or permission of the instructor. Survey of changes and continuities in the lives of Latin American women since the colonial period; emphasis on gender, race, class in shaping women's experiences. (Formerly 3400:377)

**Gen Ed:** - Global Diversity

**HIST:378 Spanish Conquest and Colonization of the Americas (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Course examines the conquest, colonization, and three-centuries-long Spanish rule in Latin America since 1492. Emphasis on culture, power inequalities, issues of identity, and memory. (Formerly 3400:378)

**Gen Ed:** - Global Diversity

**HIST:379 Modern Latin America (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. This course examines the history of Latin America during the national period, ca. 1820s to the present. Focus on politics, economic systems, and nation-state formation. (Formerly 3400:379)

**HIST:381 History of Canada (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Survey of Canadian history from the age of the explorers to the present. Special emphasis will be placed on the history of French-Canadians, on economic development and on Canadian-American relations. (Formerly 3400:381)

**HIST:382 The Vietnam War (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. An examination and evaluation of all aspects of the war in Vietnam, political, military, diplomatic and economic, including its impact domestically then and later. (Formerly 3400:382)

**HIST:392 Internship in History (1-3 Credits)**

Prerequisites: 64 credits, History major or minor, prior completion of 16 credits in History (not including Humanities in the Western Tradition or World Civilizations), minimum 2.5 history GPA, and permission of instructor. Individual field experience in applied history. May be repeated up to 6 credits; 4 credits to apply to the 32 credit minimum for a history major. (Formerly 3400:392)

**HIST:395 Modern Iran (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. This course on modern Iran explores the country's history of nationalism, identity, gender, and religion, and its place in world history. (Formerly 3400:395)

**Gen Ed:** - Global Diversity

**HIST:396 Iraq in Historical Perspective (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. This course will offer a complex and nuanced look into the history of Iraq and will situate current events firmly in their historical context. (Formerly 3400:396)

**HIST:397 Individual Study in History (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission. For individual study or research in history, including special projects, summer study tours or specialized training. (Formerly 3400:397)

**HIST:400 Gender and Culture in China (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. This course examines the dynamic between gender and culture from late imperial to post-socialist China, with connections drawn to public policies in different periods. (Formerly 3400:400)

**HIST:401 Japan & the Pacific War, 1895-1945 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. The rise of Japanese militarism, Japan's drive to create an empire in East and Southeast Asia, 1895-1945, and its role in the Pacific War, 1937-45. (Formerly 3400:401)

**HIST:404 Studies in Roman History (3 Credits)**

Prerequisite: Minimum of 48 credits or permission of the instructor. Concentrated investigation of selected topics, such as imperialism in middle and late Republic, the age of Augustus, or the fall of western Empire. (Formerly 3400:404)

**HIST:405 War and Politics in the Renaissance (3 Credits)**

Prerequisite: Senior standing. This course will explore the theory and practice of politics and diplomacy during the European Renaissance. We will examine such topics as the rise of the modern nation/state, the origins of modern diplomatic practice, the development of European imperialism, and the impact of major political thinkers such as Machiavelli and More. We will also examine the politics behind the various wars of the period, particularly the religious wars in the Reformation. We will begin in early Renaissance Italy, and then turn to the rise of Atlantic powers such as Spain, England and the Netherlands. (Formerly 3400:405)

**HIST:409 Imperial Spain, 1469-1700 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course examines the rise and fall of Spain as the first world power. It will cover Spanish political, cultural, and social history, 1469-1700. (Formerly 3400:409)

**HIST:410 History and Film (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Repeatable once with permission. Examines films as historical experiences, historical events, and artifacts of history. Themes and foci will vary. (Formerly 3400:410)

**HIST:416 Modern India (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. History of the Indian subcontinent from c. 1500 with emphasis on India society and culture, British imperialism, and the emergence of Indian nationalism. (Formerly 3400:416)

**HIST:417 Latin America and the United States (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Inter-American relations viewed from Latin American and U.S. perspectives; U.S. policy, imperialism, economic and cultural influences. (Formerly 3400:417)

**HIST:418 History of Brazil Since 1500 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Survey of the economic, political, social and cultural history of Brazil since 1500. (Formerly 3400:418)

**HIST:424 The Renaissance (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. The age of transition from the Middle Ages to modern times (1350-1600). Special emphasis on intellectual trends, the development of humanism, and the fine arts. (Formerly 3400:424)

**HIST:425 The Reformation (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. Europe in 16th century; its religious, cultural, political and diplomatic development, with special emphasis on Protestant, Anglican and Catholic reformations. (Formerly 3400:425)

**HIST:429 Europe in the French Revolutionary Era-1789-1815 (3 Credits)**

Prerequisite: a minimum of Junior standing or permission of the instructor. Development of Revolution; Napoleon's regime and satellites. (Formerly 3400:429)

**HIST:438 Nazi Germany (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course covers the social, economic, and political history of Germany from World War I to 1945 with emphasis on the Third Reich. (Formerly 3400:438)

**HIST:440 Tudor & Stuart Britain, 1485-1714 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. An examination of the development of, and increasing links between the British kingdoms in the early modern period, with emphasis on culture, politics, and religion. (Formerly 3400:440)

**HIST:443 Churchill's England (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. An examination of the changes that Britain experienced during the life of Winston Churchill, 1874-1965. Emphasis is on cultural, social, and political developments. (Formerly 3400:443)

**HIST:451 Colonial American History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course covers the history of colonial America from the first European contact in the Americas in 1492 to the onset of the American Revolution. (Formerly 3400:451)

**HIST:452 American Revolutionary Era (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. The struggle for the rights of colonists and independence; the impact of war on American society and the creation of republican institutions. (Formerly 3400:452)

**HIST:453 The Early American Republic (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. The evolution of the American republic from its early beginnings after the American Revolution to the antebellum era. Emphasis upon political, social, and cultural developments. (Formerly 3400:453)

**HIST:454 Civil War & Reconstruction, 1850-1877 (4 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Sectionalism, slavery and the causes of the Civil War; wartime activities of the Union and Confederacy; leading personalities; problems of reconstruction and the new Union. (Formerly 3400:454)

**HIST:455 Origins of Modern America, 1877-1917 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. United States from Reconstruction Era to World War I (1877-1920); emphasis on political responses to rise of an industrialized-urbanized society, the populist and progressive movements. (Formerly 3400:455)

**HIST:456 America in World Wars & Depression, 1917-1945 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. World War I and Versailles; the 1920s, the Great Depression and the New Deal; World War II. (Formerly 3400:456)

**HIST:457 The United States since 1945 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Nuclear age, cold war, foreign policy and domestic affairs to present. Social, political, constitutional, diplomatic, cultural and economic changes since 1945. (Formerly 3400:457)

**HIST:461 The United States as a World Power (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. The course analyzes the emergence and functioning of the United States as a world power, with particular emphasis on the 20th century. (Formerly 3400:461)

**HIST:463 United States Constitutional History (3 Credits)**

Prerequisite: A minimum of 48 credits or permission of the instructor. This course examines the evolution of constitutional government from the drafting of the U.S. Constitution (1787) to present. (Formerly 3400:463)

**Gen Ed:** - Complex Issues Facing Society

**HIST:465 American Economy Since 1900 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Survey of economic developments since 1900; topics include agriculture, business and labor. Special emphasis on role of big business and evolution of monetary and fiscal policy. (Formerly 3400:465)

**HIST:467 History of American Pop Culture (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Historical analysis of mass cultural phenomena and the social experiences associated with mass technologies that transformed modern America life in the 19th and 20th centuries. (Formerly 3400:467)

**HIST:468 African-American Social & Intellectual History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Examination of black thought and activities reflective of African-American culture, conditions facing black people within America and efforts toward coordinated black activity. (Formerly 3400:468)

**HIST:469 African-American Women's History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Study of black American women's lives from colonial times to the present featuring autobiographical. Fictional and secondary works authored by black women. (Formerly 3400:469)

**HIST:470 Ohio History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Political, social, economic and intellectual history of Ohio, with special emphasis on Ohio's relationship to Old Northwest and to the nation. (Formerly 3400:470)

**HIST:471 American Environmental History (3 Credits)**

Prerequisite: a minimum of 48 credits completed or permission of the instructor. Utilization, conservation of natural resources from beginnings of American society to present; combination of economic, technological history of extensive treatment of public policy, environmental issues. (Formerly 3400:471)



**HIST:472 Empire, Genocide, and Mass Violence (3 Credits)**

Prerequisite: A minimum of 48 credits or permission of the instructor. This course explores the histories of genocide and other types of mass violence, as well as the debates surrounding them. Focusing on examples that begin with the genocide of indigenous peoples in the Americas and Australia and concluding with current cases, we will explore the role of modern identity politics, imperialism, and ideology in mass murders and genocides and will consider analyses of case studies from multiple disciplinary perspectives. We will conduct this class as a seminar, which means that we engage in extensive reading (as well as writing) assignments and regular participation from students in discussions. (Formerly 3400:472)

**Gen Ed:** - Complex Issues Facing Society

**HIST:475 Mexico (3 Credits)**

History of Mexico from Indian civilizations to present with emphasis on relations with United States; social and political ramifications of the 20th Century Mexican revolution. (Formerly 3400:475)

**HIST:476 Central America & the Caribbean (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Selected aspects of the histories of Central American and Caribbean countries with emphasis on populist and peasant movements, political reform, social revolution, economic and under development, and relations with the United States. (Formerly 3400:476)

**HIST:483 History in Video Games (3 Credits)**

Prerequisite: Sophomore standing. Examines the presentation of history in video games analyzing them for accuracy, bias, structural limitations, and utility as teaching tools. (Formerly 3400:483)

**HIST:484 Museums and Archives (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course will focus on the work of history museums, historical societies and historic house museums and archives. (Formerly 3400:484)

**HIST:485 History, Communities, and Memory (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Course examines the interactions between the work of academic historians and the public in areas such as local history, monuments, oral history, film and the Internet. (Formerly 3400:485)

**HIST:487 Science and Technology in World History (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. This course examines the development and diffusion of science and technology in human history, its impact on society, culture, and daily life. (Formerly 3400:487)

**HIST:489 Ottoman State and Society (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Explores political, economic, and social dynamics of one of the world's most enduring and expansive multiethnic empires. (Formerly 3400:489)

**Gen Ed:** - Global Diversity

**HIST:491 Honors Seminar in History (3 Credits)**

Prerequisite: Permission of department head or instructor. Selected readings; writing of research paper. For student seeking to graduate with honors in history and for student in Honors Program. (Formerly 3400:491)

**HIST:492 Honors Project in History (1-3 Credits)**

Prerequisite: 64 credits. An individual research project relevant to history, supervised by a member of the Department of History, culminating in an undergraduate thesis. (Formerly 3400:492)

**HIST:493 Special Studies: North American History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Special studies in the history of North America (Rio Grande to Arctic). See department office for information on particular offerings. (Formerly 3400:493)

**HIST:494 Workshop in History (1-3 Credits)**

(May be repeated) Group studies of special subjects pertaining to history. May be used for elective credit only. May not be used to meet undergraduate or graduate major requirements in history. (Formerly 3400:494)

**HIST:495 Special Studies: European History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Special studies in European history from the fall of the Roman Empire to the present. See department office for information on particular offerings. (Formerly 3400:495)

**HIST:496 Special Studies in History: Other (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Special studies in the history of Latin America, Asia, Africa or the Pacific. See department office for information on particular offerings. (Formerly 3400:496)

**HIST:498 Race, Nation, and Class in the Middle East (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course analyzes identity politics and the development of the ideas of race, nation, and class in the Middle East from a historical perspective. (Formerly 3400:498)

**HIST:499 Women and Gender in Middle Eastern Societies (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course explores the multi-layered processes and dimensions, including texts, cultural values and practices, institutions, and events, which have shaped women's experiences in the Middle East. (Formerly 3400:499)

**Gen Ed:** - Global Diversity

## Classical Studies, Minor

### Minor in Classical Studies (320003M)

The following information has official approval of the **Department of History** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Classical Studies" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. At least 6 credits must be at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
	Required Courses	6
	Electives	12
	Total Hours	18

## Required Courses

Code	Title	Hours
CLAS:230	Sports & Society in Ancient Greece and Rome	3
CLAS:289	Mythology of Ancient Greece	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 12 credits from the following (a minimum of six credits must be at 300/400 level):</b>		
CLAS:361	The Literature of Greece	
CLAS:362	The Literature of Rome	
CLAS:363	Women in Ancient Greece and Rome	
CLAS:480	Reading & Research in Classical Studies	
ANTH:110	Introduction to Archaeology	
ANTH:313	Archaeology of Greece	
ANTH:314	Archaeology of Rome	
ANTH:360	Ancient Near Eastern Archaeology	
ANTH:407	Archaeological Theory	
HIST:308	Greece	
HIST:317	Roman Republic	
HIST:318	Roman Empire	
HIST:404	Studies in Roman History	
LATN:201	Intermediate Latin I	
LATN:202	Intermediate Latin II	
LATN:303	Advanced Latin I	
LATN:304	Advanced Latin II	
LATN:497	Latin Reading & Research	
LATN:498	Latin Reading & Research	
PHIL:211	History of Ancient Philosophy	
PHIL:411	Plato	
PHIL:432	Aristotle	
Total Hours		12

## History Asian Studies, Certificate Certificate in History – Asian Studies (340001C)

### Program Contact

Dr. A Martin Wainwright  
Department Chair, History  
330-972-6512  
mwainwright@uakron.edu

The following information has official approval of the **Department of History** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in History – Asian Studies" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. Students

will need to complete the equivalent of a fourth semester level language class (South or East Asian language).

## Summary

Code	Title	Hours
Electives		15
Total Hours		15

## Electives

Code	Title	Hours
<b>Select 15 credits from at least three of the following areas:</b>		
<b>15</b>		
<i>Geography</i>		
GEOG:360	Asia	
<i>Geology</i>		
GEOL:141	Natural Environment of China	
GEOL:455	Field Studies in Geology	
<i>History</i>		
HIST:200	Empires of the Ancient World	
HIST:285	World Civilizations: China <sup>1</sup>	
HIST:286	World Civilizations: Japan <sup>1</sup>	
HIST:287	World Civilizations: Southeast Asia <sup>1</sup>	
HIST:288	World Civilizations: India <sup>1</sup>	
HIST:300	Imperial China	
HIST:301	Modern China	
HIST:303	Modern East Asia	
HIST:382	The Vietnam War	
HIST:400	Gender and Culture in China	
HIST:401	Japan & the Pacific War, 1895-1945	
HIST:416	Modern India	
HIST:493	Special Studies: North American History	
<i>Japanese</i>		
JAPN:210	Japanese Culture through Film	
<i>Art</i>		
ART:401	Special Topics: History of Art <sup>2</sup>	
<i>Dance</i>		
DNCE:152	Topics in World Dance	
Total Hours		15

<sup>1</sup> Only one World Civilization class will be counted toward the certificate credits unless the course involves travel abroad. World Civilization classes do fulfill a General Education requirement.

<sup>2</sup> Select one of the following topics; The Art of India, The Art of China, The Art of Korea and Japan, or The Art of Buddhist Japan.

## History Middle Eastern Studies, Certificate

### Certificate in History – Middle Eastern Studies (340002C)

#### Program Contact

Dr. A Martin Wainwright  
Department Chair, History  
330-972-6512

mwainwright@uakron.edu

The following information has official approval of the **Department of History** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in History – Middle Eastern Studies" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. Students will need to complete the equivalent of a fourth semester level language class (modern South or East Asian language for a Middle Eastern language) for the Middle Eastern Studies Certificate. Only one ancient world course will count towards the certificate.

## Summary

Code	Title	Hours
Electives		15
Total Hours		15

## Electives

Code	Title	Hours
<b>Complete 15 credits from at least three of the following areas:</b>		<b>15</b>

### Women's Studies

WMST:485 Special Topics in Women's Studies

### Anthropology

ANTH:357 Magic, Myth, & Religion

ANTH:370 Globalization and Culture

ANTH:416 Anthropology of Sex and Gender

ANTH:320 The Anthropology of Food

ANTH:457 Medical Anthropology

ANTH:472 Special Topics: Anthropology

### Archaeology

ANTH:360 Ancient Near Eastern Archaeology

### Economics

ECON:461 Principles of International Economics

### English

ENGL:362 World Literatures

ENGL:389 Special Topics: Literature & Language

### Geography

GEOG:250 World Regional Geography

GEOG:275 Geography of Cultural Diversity

GEOG:497 Regional Field Studies

### Geology

GEOL:498 Special Topics in Geology

### History

HIST:289 World Civilizations: Middle East

HIST:307 The Ancient Near East

HIST:340 Selected Topics in History <sup>1</sup>

HIST:341 Islamic Fundamentalism & Revolution

HIST:342 The Crusades through Arab Eyes

HIST:351 Global History: Encounters and Conflicts

HIST:395 Modern Iran

HIST:493	Special Studies: North American History <sup>2</sup>
HIST:496	Special Studies in History: Other
HIST:499	Women and Gender in Middle Eastern Societies
<i>Modern Languages</i>	
ARAB:210	Arabic Culture through Film
ARAB:304	Cultural Readings in Arabic
<i>Philosophy</i>	
PHIL:340	Eastern Philosophy
<i>Political Science</i>	
POLIT:310	International Politics & Institutions
POLIT:326	Politics of Developing Nations
POLIT:328	American Foreign Policy Process
POLIT:392	Selected Topics in Political Science
POLIT:405	Politics in the Middle East
POLIT:445	Al Qaeda and ISIS
<i>Sociology</i>	
SOCIO:421	Race & Ethnic Relations
<i>Accountancy</i>	
ACCT:408	International Financial Reporting & Analysis
<i>Finance</i>	
BLAW:323	International Business Law
FIN:437	International Business Finance
<i>Management</i>	
MGMT:457	International Management
<i>International Business</i>	
INTB:205	International Business
INTB:421	Foreign Market Entry
INTB:496	Special Topics: International Business
<i>Art</i>	
ART:401	Special Topics: History of Art
<i>Child &amp; Family Development</i>	
CHFD:446	Culture, Ethnicity & Family
<i>Communication</i>	
COMM:325	Intercultural Communication
<i>Study Abroad</i> <sup>3</sup>	
Total Hours	15

<sup>1</sup> Select one of the following topics; A History of Iraq and States, or Statelessness in the Middle East: Kurds and Palestinians

<sup>2</sup> Select one of the following topics; Ottoman State and Society 1300-1922, or Women and Gender in the Middle East

<sup>3</sup> The program strongly encourages study abroad, and will offer additional credits, to be applied toward the certificate, for certain courses that require overseas study in a country of the student's focus (Asia, Middle East) or for other individual experiences abroad.

## History, BA

### Bachelor of Arts in History (340000BA)

More on the History major (<https://www.uakron.edu/history/undergraduate/history-major/>)

In addition to the knowledge conveyed through the study of the past, students of history obtain practical skills that empower them no matter

what career direction they take. History students learn to read widely and critically. They develop analytical and writing skills and gain experience with oral communication, all of which can be employed in any career or profession. Tens of thousands of attorneys, teachers, civic and business leaders, military professionals, and others have developed successful careers as a result of their decision to study history. The intellectual skills and cultural sensitivity that history teaches can be applied in all walks of life. People who study history learn to ask questions, think for themselves, and become better citizens.

The following information has official approval of **The Department of History and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	History Core	3
	History Distribution Requirements	18
	History Electives	11
	Additional Credits for Graduation *	40
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## College of Arts & Sciences Requirements

**Code Title Hours**

**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

*Foreign Language 14*

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## History Core

Code	Title	Hours
HIST:310	Historical Methods	3
	<b>Total Hours</b>	<b>3</b>

## History Distribution Requirements

**Note: A minimum of two courses from two different fields must be taken at the 400 level**

Code	Title	Hours
<b>Select at least six credits in each of the following fields:</b>		
	<i>Field I (United States):</i>	<b>6</b>
HIST:250	U.S. History to 1877	
HIST:251	U.S. History since 1877	
HIST:345	Native North American History	
HIST:350	U.S. Women's History	
HIST:352	The American West	
HIST:355	American Religious History	
HIST:360	United States Military History	
HIST:371	Selected Topics: North American History	
HIST:382	The Vietnam War	

HIST:417	Latin America and the United States
HIST:451	Colonial American History
HIST:452	American Revolutionary Era
HIST:453	The Early American Republic
HIST:454	Civil War & Reconstruction, 1850-1877
HIST:455	Origins of Modern America, 1877-1917
HIST:456	America in World Wars & Depression, 1917-1945
HIST:457	The United States since 1945
HIST:461	The United States as a World Power
HIST:463	United States Constitutional History
HIST:467	History of American Pop Culture
HIST:470	Ohio History
HIST:471	American Environmental History
HIST:484	Museums and Archives
HIST:485	History, Communities, and Memory
HIST:487	Science and Technology in World History
HIST:493	Special Studies: North American History
<i>Field II (Europe):</i> 6	
HIST:210	Humanities in the Western Tradition from Ancient Times to 1500
HIST:319	Medieval Europe, 500-1200
HIST:308	Greece
HIST:317	Roman Republic
HIST:318	Roman Empire
HIST:319	Medieval Europe, 500-1200
HIST:320	Medieval Europe, 1200-1500
HIST:321	Europe: Renaissance to Religious Wars, 1350-1610
HIST:322	Europe: Absolutism to Revolution, 1610-1789
HIST:323	Europe from Revolution to World War, 1789-1914
HIST:337	France from Napoleon to De Gaulle
HIST:338	England to 1688
HIST:339	England Since 1688
HIST:351	Global History: Encounters and Conflicts
HIST:372	Selected Topics: European History (Balkans: 1875 to Present)
HIST:404	Studies in Roman History
HIST:409	Imperial Spain, 1469-1700
HIST:424	The Renaissance
HIST:425	The Reformation
HIST:429	Europe in the French Revolutionary Era-1789-1815
HIST:438	Nazi Germany
HIST:440	Tudor & Stuart Britain, 1485-1714
HIST:443	Churchill's England
HIST:483	History in Video Games
HIST:489	Ottoman State and Society
HIST:495	Special Studies: European History
<i>Field III (Global, Latin America, Africa, Asia, Middle East):</i> 6	
HIST:200	Empires of the Ancient World
HIST:221	Humanities in the World since 1300
HIST:292	Global Societies: Africa
HIST:294	Global Societies: India
HIST:295	Global Societies: Japan

HIST:296	Global Societies: Latin America
HIST:297	Global Societies: Middle East
HIST:300	Imperial China
HIST:301	Modern China
HIST:303	Modern East Asia
HIST:351	Global History: Encounters and Conflicts
HIST:373	Selected Topics: Other
HIST:377	History of Women in Latin America
HIST:378	Spanish Conquest and Colonization of the Americas
HIST:379	Modern Latin America
HIST:382	The Vietnam War
HIST:396	Iraq in Historical Perspective
HIST:400	Gender and Culture in China
HIST:401	Japan & the Pacific War, 1895-1945
HIST:410	History and Film
HIST:416	Modern India
HIST:417	Latin America and the United States
HIST:418	History of Brazil Since 1500
HIST:475	Mexico
HIST:483	History in Video Games
HIST:489	Ottoman State and Society
HIST:496	Special Studies in History: Other
HIST:498	Race, Nation, and Class in the Middle East
HIST:499	Women and Gender in Middle Eastern Societies
<b>Total Hours</b> 18	

## History Electives

Code	Title	Hours
<b>Select 11 credits of the following: 11</b>		
<i>Courses listed below count towards General Education requirements</i>		
HIST:200	Empires of the Ancient World	
HIST:210	Humanities in the Western Tradition from Ancient Times to 1500	
HIST:221	Humanities in the World since 1300	
HIST:250	U.S. History to 1877	
HIST:251	U.S. History since 1877	
HIST:323	Europe from Revolution to World War, 1789-1914	
HIST:350	U.S. Women's History	
<b>Total Hours</b>		<b>11</b>

## History, Minor Minor in History (34000M)

### Program Contact

Rose Eichler  
Professor, History  
330-972-6760  
rteichl@uakron.edu

The following information has official approval of the **Department of History** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required

credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in History" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minimum of 10 credits must be at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
<b>Complete 18 credits in the following areas <sup>1</sup></b>		<b>18</b>
<i>Field One-U.S. &amp; Canada</i>		
Select a minimum of one of the following courses:		
HIST:250	U.S. History to 1877	
HIST:251	U.S. History since 1877	
HIST:345	Native North American History	
HIST:350	U.S. Women's History	
HIST:352	The American West	
HIST:354	American Immigration	
HIST:355	American Religious History	
HIST:356	Sports in American History Since 1865	
HIST:358	Urban America	
HIST:360	United States Military History	
HIST:361	African American History, 1492-1877	
HIST:362	African American History, 1877 to Present	
HIST:371	Selected Topics: North American History	
HIST:381	History of Canada	
HIST:382	The Vietnam War	
HIST:417	Latin America and the United States	
HIST:451	Colonial American History	
HIST:452	American Revolutionary Era	
HIST:453	The Early American Republic	
HIST:454	Civil War & Reconstruction, 1850-1877	
HIST:455	Origins of Modern America, 1877-1917	
HIST:456	America in World Wars & Depression, 1917-1945	
HIST:457	The United States since 1945	
HIST:461	The United States as a World Power	
HIST:463	United States Constitutional History	
HIST:465	American Economy Since 1900	
HIST:467	History of American Pop Culture	
HIST:468	African-American Social & Intellectual History	
HIST:469	African-American Women's History	
HIST:470	Ohio History	
HIST:471	American Environmental History	
HIST:484	Museums and Archives	
HIST:485	History, Communities, and Memory	

HIST:487 Science and Technology in World History

HIST:493 Special Studies: North American History

### *Field Two-Europe*

Select a minimum of one of the following courses:

HIST:319 Medieval Europe, 500-1200  
 HIST:320 Medieval Europe, 1200-1500  
 HIST:321 Europe: Renaissance to Religious Wars, 1350-1610  
 HIST:322 Europe: Absolutism to Revolution, 1610-1789  
 HIST:323 Europe from Revolution to World War, 1789-1914  
 HIST:324 Europe from World War I to the Present

HIST:325 Women in Modern Europe

HIST:335 Russia to 1801

HIST:336 Russia Since 1801

HIST:337 France from Napoleon to De Gaulle

HIST:338 England to 1688

HIST:339 England Since 1688

HIST:372 Selected Topics: European History <sup>2</sup>

HIST:409 Imperial Spain, 1469-1700

HIST:410 History and Film

HIST:424 The Renaissance

HIST:425 The Reformation

HIST:429 Europe in the French Revolutionary Era-1789-1815

HIST:438 Nazi Germany

### *Field Three-Ancient, Asia, Latin America & Middle East*

Select a minimum of one of the following courses:

HIST:200 Empires of the Ancient World

HIST:300 Imperial China

HIST:301 Modern China

HIST:303 Modern East Asia

HIST:307 The Ancient Near East

HIST:308 Greece

HIST:313 Eastern Roman Empire (324-1453)

HIST:317 Roman Republic

HIST:318 Roman Empire

HIST:341 Islamic Fundamentalism & Revolution

HIST:342 The Crusades through Arab Eyes

HIST:351 Global History: Encounters and Conflicts

HIST:373 Selected Topics: Other <sup>3</sup>

HIST:377 History of Women in Latin America

HIST:378 Spanish Conquest and Colonization of the Americas

HIST:379 Modern Latin America

HIST:381 History of Canada

HIST:395 Modern Iran

HIST:396 Iraq in Historical Perspective

HIST:400 Gender and Culture in China

HIST:401 Japan & the Pacific War, 1895-1945

HIST:404 Studies in Roman History

HIST:416 Modern India

HIST:417 Latin America and the United States

HIST:418 History of Brazil Since 1500

HIST:476 Central America & the Caribbean

HIST:489	Ottoman State and Society
HIST:496	Special Studies in History: Other
HIST:498	Race, Nation, and Class in the Middle East
HIST:499	Women and Gender in Middle Eastern Societies

Total Hours 18

- <sup>1</sup> At least 10 credits must be at the 300/400-level
- <sup>2</sup> Select Balkans: 1875 to present
- <sup>3</sup> Select Latin American Popular Culture

## LeBron James Family Foundation School of Education

### School Requirements

#### Selection, Admission, Retention, and Teacher Licensure

The LeBron James Family Foundation School of Education has selective admission, retention, and graduation requirements for the completion of a program at The University of Akron.

For all students applying to a School of Education Professional Education program, the admission and degree requirements outlined in the current UA Undergraduate Bulletin will be used to determine admission (or readmission) and degree requirements for all programs.

From admission through graduation, all decisions are made following the School's or department's approved criteria. Prior to admission to a program, Ohio requires all colleges and universities preparing teachers and educational personnel to assess students in the areas of verbal communication and academic achievement. The University of Akron's School of Education admission procedures are designed to establish admission criteria, provide for assessments, allow for skills enhancement, reassessment and reapplication where appropriate.

**General Education Requirements:** To be admitted to the LeBron James Family Foundation School of Education teacher education programs, all students must be able to meet the following criteria: English Comp I (or equivalent): Grade C or better, English Comp II: Grade C or better, Any Gen Ed Quantitative Reasoning, Speaking Requirement, Any Gen Ed Natural Science (7 credits including one lab course), Any Gen Ed Social Science.

**Grade-Point Average:** For admission, a minimum grade point average of 2.5 or better overall for the above Gen Ed courses and minimum and 2.5 or better cumulative GPA.

**Bureau of Criminal Investigation Clearance:** A signed Criminal Background Check Acknowledgement Form must be submitted and is included in the School of Education Application. Current Ohio Bureau of Criminal Identification and Investigation (BCII) and Federal Bureau of Investigation (FBI) background checks are required before you may participate in coursework with clinical or field experience.

**School of Education Application:** All students must complete the School of Education application (<https://www.uakron.edu/education/academic-programs/how-to-apply.dot>). Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. **Undergraduate** students should apply during the semester in which all School of Education pre-admission requirements will be met.

**Admission Timeline:** Admission to a School of Education Professional Education program is in effect for five years from the date of admission. All criteria and procedures regarding selective admission and retention are available in

The LeBron James Family Foundation School of Education  
Zook Hall 002  
The University of Akron  
Akron, OH 44325-4201  
(330) 972-7750  
[www.uakron.edu/education](http://www.uakron.edu/education) (<http://www.uakron.edu/education/>)

### Application for Admission to Professional Education Programs

All students are required to have completed the application process no less than six weeks prior to the semester in which they wish to begin coursework in the School of Education. Additional information and applications are available on the LeBron James Family Foundation School of Education website at <https://www.uakron.edu/education/academic-programs/how-to-apply.dot>

**Program Area of Study:** All students are expected to comply with requirements specified by the program to which they are applying. These are available in the Student Services Office.

**Advisement:** All students will be assigned an advisor and meet with them during the first semester of admission. Students are encouraged to see their advisor when necessary to assure they are maintaining progress in their program.

**Retention:** Retention of students in each program will be evaluation based. Students will have opportunities to upgrade their skills and achievement in areas where such needs may exist. Completion of program requirements will be reviewed by the student and faculty advisor. Approval to student teach is contingent on the student's progress through the program of study with satisfactory grades. Graduation is contingent on completion of coursework, student teaching, GPA of 2.50 overall, 2.50 in education classes, and 2.50 in the student's major.

**Licensure:** After graduation, students may apply for licensure through the Ohio Department of Education. The State of Ohio requires all applicants for licensure to submit a current BCII/FBI Clearance. A BCII/FBI Clearance is valid for 12 months from the date of issue. Ohio also requires all applicants for licensure to pass appropriate examination(s) for intended area(s) of licensure. Information about specific licenses can be obtained from the School of Education.

**Transfer Students:** Transfer students will be expected to meet the same admission standards as University of Akron students.

**Post-Baccalaureate Students:** Qualified post-baccalaureate students seeking licensure will be admitted to the LeBron James Family Foundation School of Education and to the appropriate program once they meet all admission requirements.

### Bachelor's Degrees

The Professional Education Program prepares students to teach in one or more of the following areas/fields: primary inclusive teacher preparation (age 3 through grade 5); middle childhood (grades 4 through 9) dual licensure with intervention specialist; the conventional academic fields found in programs for adolescent to young adult students (grades 7 through 12); in special education as an intervention specialist for early childhood (P-3 mild/moderate/intensive); mild/moderate (K-12); or

moderate/intensive (K-12); and multi-age (grades PK through 12). To qualify for the bachelor's degree, the minimum credits as required by the student's degree program at the time of admission with a grade-point average of 2.50 overall, 2.50 in education classes, and 2.50 in the student's major must be completed.

The specific subjects required for degrees in certain fields are set forth in subsequent pages. In all cases, the requirements include courses in general education, professional education and content areas.

The Bachelor of Arts in Education degree is granted to those whose major is in one of the academic fields. The Bachelor of Science in Education is granted to those whose major is in the other special fields or in early childhood inclusive or middle childhood education.

## Professional Education Programs

The conceptual framework theme, "Educator as Decision Maker," is central to The University of Akron's Professional Education Program. This was chosen because the complexity of teaching is increasing and the professional knowledge base is growing. Decision-making is stressed in the standards-based programs that prepare teachers and other school personnel for professional practice. Initial professional education programs are aligned with the Ohio Standards for the Teaching Profession, and Specialized Professional Association Standards. Advanced Programs for practicing teachers are aligned with the Ohio Standards for the Teaching Profession. For more complete information about the professional education program, consult the School of Education at (330)972-7750.

Students must complete appropriate professional education courses with grades of 'C' or better before progressing through the program.

## Professional Preparation

Throughout their program, teacher candidates take a combination of core courses, field experiences, and courses in their program studies area. Students should note the sequence of core and program courses. The core courses cover the knowledge base that is common for all teachers, regardless of their teaching field. The field experiences provide teacher candidates with experience in schools from the beginning of their program. Additionally during their field and clinical experiences, teacher candidates learn to apply what they are learning in courses.

Program content area courses are related to teacher candidates' intended area of licensure. In addition, teacher candidates have a faculty advisor to help plan what to study and to review what has been accomplished.

The culminating experience for teacher candidates is student teaching. Under the supervision of a team of college faculty and a classroom teacher, each student teacher begins to put newly-developed competencies into practice.

For candidates seeking to graduate without licensure, substitute courses for this culminating experience of student teaching and colloquium will be determined with recommendation by the advisor and subject to approval by the Dean to assure that candidates meet an equivalent number of Education course hours for the program. Candidates must meet all other program requirements. If the student wishes to seek licensure after graduation, the student would need to apply to be admitted to the appropriate program. The student will be required to complete all necessary requirements for licensure in place at the time admission.

## Clinical and Field-Based Experiences

All teacher candidates are required to participate satisfactorily in clinical and field-based experiences prior to recommendation for licensure to teach in Ohio. These clinical and field-based experiences are designed to provide teacher candidates with the opportunity to apply theory and skills related to their areas of licensure in diverse clinical and field-based settings. Clinical experiences are those planned activities in which professional education students apply the principles of teaching.

## Student Teaching

Student teaching is an all-day, full-time, planned teaching experience for 16 weeks in an approved public or private school. Placements are made in schools selected and supervised by the School of Education in collaboration with school districts and faculty.

All teacher candidates must have an approved student teaching application on file to be considered for placement.

To qualify for student teaching, teacher candidates must have a 2.50 average overall, a "C" or better in professional education classes, a minimum of a 2.50 and/or a "C" or better in the teacher candidate's major, and in methods courses as defined by departments. Satisfactory completion of field and pre-clinical experience is also required before student teaching. Students also need to pass at least one Ohio Assessment for Educators (OAE) in the program area.

## Licensure

Every teacher in Ohio public schools is required to have a teaching license covering the fields in which teaching is being done. This license is issued by the Ohio Department of Education upon recommendation of the School of Education. The teacher candidate must provide evidence of a current BCII/FBI Clearance, must pass appropriate examination(s) required in Ohio, complete the appropriate program requirements successfully, and be recommended for a teaching license.

## Endorsements

### TESOL Endorsement (Teaching English to Speakers of Other Languages)

This program introduces teacher candidates to the key issues in teaching English to non-native speakers through coursework in linguistics, second language theory and methods, and related disciplines.

Teacher candidates seeking this endorsement must have studied a foreign language at some time during their academic career.

Students who do not have English as a native language must demonstrate adequate proficiency in English with a valid TOEFL score of 580 or above and a score of 240 or above on the TSE (Test of Spoken English).

- AYA Chemistry Licensure, BA (p. 183)
- AYA Chemistry/Earth Licensure, BA (p. 185)
- AYA Chemistry/Physics Licensure, BA (p. 187)
- AYA Earth Science Licensure, BA (p. 188)
- AYA Earth Science/Physics Licensure, BA (p. 190)
- AYA Integrated Language Arts, BA (p. 192)
- AYA Integrated Mathematics, BA (p. 194)
- AYA Integrated Science Licensure, BA (p. 197)
- AYA Integrated Social Studies, BA (p. 199)
- AYA Life Science Licensure, BA (p. 201)



- AYA Life/Biology-Chemistry Licensure, BA (p. 202)
- AYA Life/Biology-Physics Licensure, BA (p. 205)
- AYA Physics Licensure, BA (p. 206)
- Early Childhood Intervention Specialist, BS (p. 208)
- Middle Level Education, BS (p. 210)
- Middle Level Education, Dual Licensure, BS (p. 213)
- Mild/Moderate Intervention Specialist, BS (p. 216)
- Moderate/Intensive Intervention Specialist, BS (p. 218)
- Primary Inclusive Teacher Preparation, BS (p. 220)

## Educational Foundations and Leadership (EDFN)

### EDFN:150 Democracy & Education (3 Credits)

Based on an interdisciplinary inquiry, this course examines varied theories and practices of democratic education. (Formerly 5100:150)

### EDFN:200 Introduction to Education (3 Credits)

Prerequisite: 13-15 sem. hrs. of specific GenEd courses; FBI/BCI background checks. Introduction to the teaching profession designed to explore the purposes of schools in society and what is required to be an effective teacher today. This course will include 10 field hours of field observation in an urban setting. (Formerly 5100:200)

### EDFN:205 Fundamental Educational Computer Skills (1 Credit)

Elective Course: Computer skills for education majors with little or no computer experience. Includes word processing, databases, graphics and communications. Cannot substitute for any required course. (Formerly 5100:205)

### EDFN:210 Characteristics of Learners (3 Credits)

Prerequisite: Completion of all LBJFF School of Education program admission requirements. Corequisite: EDFN 211. Describe cognitive, psychosocial, physical, language, and moral development of learners Pre-K through adult. Identifies learner needs, roles of teachers and schools in fostering optimal development. (10 hours of field experience included.) (Formerly 5100:210)

### EDFN:211 Teaching & Learning Strategies (3 Credits)

Prerequisite: Completion of all LBJFF School of Education admission requirements. Corequisite: EDFN 210. From course content and activities, students will recognize, select, and practice various instructional models. Students will acquire and apply appropriate learning and motivational strategies. (10 hours of field experience included.) (Formerly 5100:211)

### EDFN:220 Educational Psychology (3 Credits)

Prerequisite: 13-15 sem. hrs. of specific GenEd courses; EDFN 200 (may be taken as prerequisite or corequisite); FBI/BCI background checks. Focuses on the developmental influences and characteristics of learners, and psychological principles pertaining to teaching and learning processes, motivation and self-regulation in learners. (Formerly 5100:220)

### EDFN:300 Educational Equity and Excellence in a Culturally Pluralistic Society (3 Credits)

Prerequisites: EDFN 200, EDFN 220, EDCI 230, EDIS 225. Corequisite with or prerequisite to EDCI 360. Engages teacher candidates in inquiry-based seminars and service learning that facilitate their developing pedagogical competence implementing equity and excellence in education. (Formerly 5100:300)

### EDFN:330 Early Adolescent Learner (3 Credits)

Study of issues in adolescent development, particularly as it relates to educational settings. Physical, cognitive, language, emotional, social, and moral development in learners 8-14 years old. (Formerly 5100:330)

### EDFN:410 Professional Issues in Education (3 Credits)

Prerequisites: EDCI 310, EDCI 311, EDCI 320, EDCI 330, and admission to the LBJFF School of Education. Course work applies social and philosophical foundations of education to current and historical issues in education with attention to roles and responsibilities of contemporary teachers. (Formerly 5100:410)

### EDFN:420 Introduction to Instructional Computing (3 Credits)

Prepares the student in the use of instructional technologies in educational and business settings. Segments of the course are offered in an online format. (Formerly 5100:420)

### EDFN:430 Senior Honors Project: Foundations (1-6 Credits)

(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5100:430)

### EDFN:480 Special Topics: Educational Foundations (1-4 Credits)

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5100:480)

### EDFN:481 Special Topics: Educational Administration (1-4 Credits)

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5700:480)

### EDFN:490 Workshop: Educational Foundations & Leadership (1-3 Credits)

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5100:490)

### EDFN:491 Workshop: Educational Foundations & Leadership (1-3 Credits)

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5100:491)

### EDFN:492 Workshop: Educational Foundations & Leadership (1-3 Credits)

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5100:492)

### EDFN:493 Workshop: Educational Foundations & Leadership (1-3 Credits)

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5700:492)

### EDFN:494 Workshop: Educational Foundations & Leadership (1-3 Credits)

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5700:493)

### EDFN:495 Educational Institutes in Educational Foundations & Leadership (1-4 Credits)

Special course designed as in-service upgrading programs. (Formerly 5100:494)

### EDFN:496 Educational Institutes: Education Foundations & Leadership (1-4 Credits)

Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations. (Formerly 5700:494)

### EDFN:497 Independent Study (1-3 Credits)

(May be repeated for a total of six credits) Prerequisites: Permission of department head and instructor. Specific area of study determined in accordance with program and professional goals. (Formerly 5100:497)

## Primary Inclusive (EDPI)

### **EDPI:100 Orientation to Early Childhood Specialist (0 Credits)**

Corequisite: EDFN 200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development. (Formerly 5200:100)

### **EDPI:200 Pre-Kindergarten Participation I (1 Credit)**

Prerequisite: CHFD 265, CHFD 245. Planned field experience in a pre-kindergarten infant/toddler classroom where students work with children age birth to 3 years both individually and in small groups. (Formerly 5200:200)

### **EDPI:215 The Child, the Family, and the School (3 Credits)**

Prerequisites: EDFN 220, EDIS 225. The purpose of this course is to learn about why we create reciprocal working relationships with parents, and methods of creating these types of relationships. (10 field/clinical hours). (Formerly 5200:215)

### **EDPI:220 Visual Arts Culture in Early Childhood (1 Credit)**

Prerequisite: admission to Teacher Education Program. Art education concepts, structures, and knowledge base to provide curricular opportunities for education majors to develop as creative problem solvers in an elementary school setting. First offered Fall 1993. (Formerly 5200:220)

### **EDPI:250 Developing Processes of Investigation (3 Credits)**

Prerequisites: EDFN 210, EDFN 211, and admission to Teacher Education Program. This course will enable students to identify and acquire those investigative and discovery processes and skills that are common in mathematics, science, and social studies. (Formerly 5200:250)

### **EDPI:300 Pre-Kindergarten Participation II (1 Credit)**

Prerequisites: EDPI 200, EDIS 450 and admission to Teacher Education Program. Planned field experience in pre-kindergarten early intervention program where student works in both small and large group settings and with individual children. (Formerly 5200:300)

### **EDPI:319 Integrated Expressive Arts in Primary Grades (3 Credits)**

Prerequisites: CHFD 265, [MUSIC 201 or ART 210 or THEA 301], and admission to teacher education program. This course focuses on creative expression and play as primary activities to support the physical, intellectual, social, emotional and aesthetic development of children from birth through fifth grade. Theory and practice of play, child study, environmental planning, creativity and arts-based expression are foundational in this course. Students learn how to teach with the arts, within and across the academic content curriculum. (Formerly 5200:319)

### **EDPI:320 Visual Arts Application in the Elementary School (3 Credits)**

Prerequisite: EDPI 220. Exploration of materials, methods, processes and visual techniques relating two and three-dimensional art experiences for the teacher of elementary children. (Formerly 5200:320)

### **EDPI:321 Instructional Techniques: Modern Languages K-8 (3 Credits)**

Prerequisite: admission to the LBJFF School of Education. Focus on theories of language acquisition, models of instruction suited to teaching foreign languages and cultures in the elementary school (K-8), and strategies that promote appropriate levels of language proficiency and competency for young learners. (Formerly 5200:321)

### **EDPI:325 Early Childhood Inclusive Practicum (3 Credits)**

Prerequisite: EDCI 240. Corequisite: EDCI 241. Prerequisite or Corequisite: EDCI 308. This field-based course emphasizes developmental domains of preschool children. Candidates design appropriate activities for culturally and linguistically diverse population of typically and atypically developing children. (Formerly 5200:325)

### **EDPI:330 Building Understanding in Early Childhood Settings (3 Credits)**

Prerequisite: EDCI 240. Corequisite: EDCI 241 and EDIS 448. Prerequisite or corequisite: EDCI 308. This course prepares teachers to work in inclusive programs, able to meet the needs of children; exceptional, cultural and linguistic diverse, and typically. (Formerly 5200:453)

### **EDPI:331 Kindergarten Methods & Material (4 Credits)**

Prerequisites: 5200:330 and CHFD 265. Scope and sequence of kindergarten curricula, with emphasis on developmentally appropriate methods and materials. This course is not part of the new teacher licensure program. (Formerly 5200:331)

### **EDPI:333 Science for Primary Teachers (3 Credits)**

Prerequisite: Admission to teacher education program. Teachers of children from Pre-K through Grade 5 must be well versed in the essential science content knowledge and they should demonstrate the understanding of central concepts, academic language, and the structure of science content areas needed to provide appropriate environments that support integrated and authentic learning for ALL children. Well prepared candidates use their knowledge, appropriate Ohio New Learning Science standards, and other resources to design, implement, and evaluate meaningful, challenging standards-based curriculum for each child. (Formerly 5200:333)

### **EDPI:334 Teaching Art in the Elementary School (3 Credits)**

Prerequisite: Admission to Teacher Education Program, Art K-12. Visual arts in elementary schools. Art education concepts with studio orientation including history of art education, developmental stages, curriculum and organization, methods, evaluation and research, and practical participation. (Formerly 5200:334)

### **EDPI:338 Social Studies for Primary Teachers (3 Credits)**

Prerequisite: Admission to the School of Education. This course equips primary grade teachers with content knowledge, skills, and dispositions necessary to teach grades Pk-5 students to be informed and active citizens in classrooms, their community, country, and world. Students will learn critical content related to the guidelines of the Ohio Department of Education and the National Council for the Social Studies standards in social studies education. They will make decisions about what to teach (standards and themes), how to teach (strategies), and which materials best serve the needs of their students (resources). (Formerly 5200:338)

### **EDPI:340 Developmental Writing and Digital Literacies in Inclusive Early (3 Credits)**

Prerequisite: EDCI 240. Prerequisite or corequisite: EDCI 241, EDCI 308, and EDIS 448. This course focuses on theoretically grounded developmental writing and communication using digital literacy in the information age specifically for children age 3 to third grade. (Formerly 5200:340)

### **EDPI:342 Teaching Math to Young Children (3 Credits)**

Prerequisites: MATH 140, MATH 240. Prerequisite or corequisite: EDCI 370. Trends in mathematics instruction in early childhood/middle level classrooms. Procedures for the development of mathematics concepts and skills. (Formerly 5200:342)

### **EDPI:352 Teaching Mathematics in Inclusive Primary Settings (3 Credits)**

Prerequisite: EDCI 308. To examine and know the standards-based mathematics curriculum and the instruction appropriate for inclusive primary setting. (10 hours of Field Work) (Formerly 5200:352)

### **EDPI:395 Field Experience (1-3 Credits)**

Prerequisites: Permission of advisor and department head. Independent field work in area selected by student's adviser, based on student's needs. (Formerly 5200:395)

**EDPI:420 Integrated Primary Curriculum (4 Credits)**

Prerequisite or corequisite: EDCI 370. Course models an inquiry-based format that integrates math, science, social studies, and technology standards where students learn how to create, implement, manage, and evaluate student-centered learning environments. (25 hours field and 35 clinical hours). (Formerly 5200:420)

**EDPI:425 Advanced Integrated Primary Curriculum (4 Credits)**

Prerequisites: EDCI 420 and admission to teacher education program. This course further explores an inquiry-based format that integrates math, science, social studies, and technology standards by having the students implement, manage, and evaluate their own and their students' learning. (25 field and 35 clinical hours). (Formerly 5200:425)

**EDPI:454 Inquiry Learning in Primary Inclusive Settings (3 Credits)**

Prerequisites: EDCI 241 and EDCI 308. Corequisite: EDIS 450. Pre/Corequisites: EDPI 333 and EDPI 338. Anchored in the authentic work of teacher and students, this field-based capstone methods class utilizes action research strategies in primary inclusive settings. By using inquiry-based methods that focus on reflective teaching and student learning, pre-service teachers learn to analyze and resolve their own teaching/learning challenges. They learn how to ask focusing questions, define terms, collect relevant data, analyze findings and communicate process that informs their professional practice. 35 field hours. (Formerly 5200:454)

**EDPI:480 Special Topics: Elementary Education (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5200:480)

**EDPI:490 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:490)

**EDPI:491 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:491)

**EDPI:492 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:492)

**EDPI:493 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:493)

**EDPI:495 Student Teaching (Pre K through K) (5 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: EDPI 498. Planned teaching experience in schools selected and supervised by Office of Field Experience. (Formerly 5200:495)

**EDPI:496 Student Teaching (Grades 1-3) (6 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: EDPI 498. Planned teaching experience in schools selected and supervised by Office of Field Experience. (Formerly 5200:496)

**EDPI:497 Independent Study: Elementary Education (1-3 Credits)**

Prerequisites: permission of adviser and department head. Specific area of curriculum investigation pertinent to elementary education as determined by student's academic needs. (Formerly 5200:497)

**EDPI:498 Student Teaching Colloquium (1 Credit)**

Prepares students for the final phase of becoming decision makers. The colloquium will explore problems encountered in classrooms, initiate reflective practice and concepts of action research, and focus on preparation of unit outlines with emphasis on applied decision making. (Formerly 5200:498)

**EDPI:499 Student Teaching in Inclusive Early Childhood Settings (9 Credits)**

Prerequisite: Approval of the Student Teaching Committee, based upon approved application to student teaching, passing at least one of Ohio Assessments for Educators subject-specific tests. Corequisite: EDIS 470. Planned 16-week experience in schools selected and supervised by the Office of Field Experiences. 322 Clinical Hours. (Formerly 5200:499)

## Middle Level Education (EDML)

**EDML:100 Orientation to Middle Level Education (0 Credits)**

Prerequisite: Admission to Middle Level Education Program. Corequisite: EDFN 200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development. (Formerly 5250:100)

**EDML:300 Middle Level Education (3 Credits)**

Prerequisite or corequisite: EDCI 308. Reviews nature/needs of early adolescents; developmentally appropriate middle schooling; philosophy of school organizations; curriculum, pedagogy, and assessment; cultural and community contexts. 15 field hours. (Formerly 5250:300)

**EDML:333 Teaching Science to Middle Level Learners (4 Credits)**

Prerequisite: EDCI 308. A methods course for the prospective teacher to develop a point of view toward science teaching and strategies for effective standards-based science teaching. (15 field hours) (Formerly 5250:333)

**EDML:338 Teaching Social Studies to Middle Childhood (3 Credits)**

Prerequisite: EDCI 308. A methods course to examine the school social studies curriculum and strategies for effective teaching. (15 field hours) (Formerly 5250:338)

**EDML:342 Teaching Math to Middle Level Learners (3 Credits)**

Prerequisite: EDCI 308. Modern strategies of psychology and methodology in middle childhood mathematics on exploratory, structural and mastery levels of learning. (15 field hours) (Formerly 5250:342)

**EDML:350 Teaching Language Arts & Media to Middle Level Learners (3 Credits)**

Prerequisites: EDCI 240, EDCI 241, and EDCI 308. This course provides preservice middle grade teachers with strategies for integrating the language arts in the areas of reading, writing, speaking, listening, media and drama. (15 Field Hours) (Formerly 5250:350)

**EDML:351 Modes of Writing for the Middle Grades (3 Credits)**

Prerequisite: Admission to the Teacher Education Program. This course will provide middle school languages arts teachers the understandings and skills necessary to teach writing in varieties of forms and modes including newswriting. (Formerly 5250:351)

**EDML:480 Special Topics: Middle School (1-3 Credits)**

Prerequisite: Permission of instructor. (May be repeated with change of topic) Group study of special topics in middle childhood of critical contemporary concern in professional education. (Formerly 5250:480)

**EDML:490 Workshop: Middle Level (1-3 Credits)**

Elective workshop for Middle Childhood majors who would like to pursue further refinement of teaching skills. Emphasis in demonstrations of teaching techniques and development. (Formerly 5250:490)

**EDML:495 Student Teaching: Grades 4-6 (5 Credits)**

Planned teaching experience in schools selected and supervised by the Office of Field Experience. (Formerly 5250:495)

**EDML:496 Student Teaching: Grades 7-9 (6 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio; senior status. Corequisite: EDML 498. Planned teaching experience in schools selected and supervised by the Office of Field Experiences. (Formerly 5250:496)

**EDML:497 Independent Study (1-3 Credits)**

Prerequisites: Permission of advisor and department head. Specific area of curriculum investigation pertinent to middle level education as determined by student's academic needs. (Formerly 5250:497)

**EDML:498 Student Teaching Colloquium: Middle Grades (3 Credits)**

Corequisite: EDML 499. The course provides a forum to discuss professional issues related to student teaching, and to support students as they complete their capstone project. The colloquium will explore a broad range of topics concerning the field of education, within the structure of the Ohio Teacher Standards. Candidates will explore the challenges encountered in classrooms, initiate reflective practice, and nurture their commitment to lifelong learning. (Formerly 5250:498)

**EDML:499 Student Teaching: Middle Level Education (9 Credits)**

Corequisite: EDML 498. Student teaching is a planned, all-day, full time teaching experience. It is coordinated and given oversight by LeBron James Family Foundation School of Education, in an approved public or private school for a total of 16 weeks. (Formerly 5250:499)

## Secondary Education (EDSE)

**EDSE:100 Orientation to the AYA/P-12 Multi-Age Programs (0 Credits)**

Prerequisite: admission to the Teacher Education Program. Corequisite: EDFN 200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development. (Formerly 5300:100)

**EDSE:316 Methods in Teaching Art (3 Credits)**

Prerequisites: Completion of required course for art teachers and grade-point average of 2.50 in the field. Study of trends and procedures in teaching and supervision; relation of art to home, school and community; observation in selected schools required. (Formerly 5300:316)

**EDSE:317 Instructional Techniques: Modern Languages-Secondary (3 Credits)**

Focus on theories of language acquisition, models of instruction for teaching foreign languages/cultures and strategies that promote levels of proficiency/competency for adolescent learners. (Formerly 5300:317)

**EDSE:320 Introduction to Teaching in the Content Area (3 Credits)**

Prerequisite: EDCI 308. This course introduces secondary teacher candidates to trends, issues, and challenges as it relates specifically to curriculum and instruction in the content areas in secondary schools. (Formerly 5300:320)

**EDSE:325 Content Reading in Secondary Schools (3 Credits)**

Instructional principles and practices for helping secondary school youth and adults learn subject matter through application of reading and study skills. (Formerly 5300:325)

**EDSE:330 Teaching Adolescent/Middle Level Literature (3 Credits)**

Student develops skills for selection of literature that is well-suited for adolescent/middle level children. Student develops, uses, and experiences methods for teaching adolescent/middle level literature in the classroom. (30 clinical experience hours) (Formerly 5300:330)

**EDSE:335 Language Learning in Secondary Schools (3 Credits)**

Prerequisite: Admission to the Teacher Education program. Introduces English teachers to the issues of language learning and techniques required to teach language skills. (Formerly 5300:335)

**EDSE:395 Field Experience: Secondary Education (1-3 Credits)**

Supervised work with youngsters, individually and in groups in school and/or community settings. (Formerly 5300:395)

**EDSE:420 Instructional Techniques in Secondary Education (3 Credits)**

Prerequisite: EDCI 308. Corequisite: EDSE 421. Open to student who has completed certification requirements in all content fields. Techniques of planning, instruction and evaluation in various secondary teaching fields. (Formerly 5300:420)

**EDSE:421 Instructional Techniques in Secondary Education - II (3 Credits)**

Prerequisites: EDSE 420 and EDSE 430. Corequisite: EDSE 431. Continuation of teaching strategy and assessment implementation based on research and theory. (Formerly 5300:421)

**EDSE:430 Clinical Teaching I (3 Credits)**

Prerequisite: EDCI 308. Corequisite: EDSE 420. Observe and apply education methodologies and theories in a school/classroom field-based environment. (50 clinical hours) (Formerly 5500:430)

**EDSE:431 Clinical Teaching II (3 Credits)**

Prerequisites: EDSE 420 and EDSE 430. Corequisite: EDSE 421. Course following Clinical Teaching I - Apply education methodologies and theories in a classroom environment in a full-time school environment. (640 clinical hours) (Formerly 5500:431)

**EDSE:480 Special Topics: Secondary Education (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5300:480)

**EDSE:490 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:490)

**EDSE:491 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:491)

**EDSE:492 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:492)

**EDSE:493 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:493)

**EDSE:494 Educational Institutes: Secondary Education (1-4 Credits)**

Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations. (Formerly 5300:494)

**EDSE:495 Student Teaching: Secondary Education (6-11 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, and passing state licensure exam(s). Corequisite: EDSE 496. Planned teaching experience in schools selected and supervised by the Office of Field Experiences. (Formerly 5300:495)

**EDSE:496 Student Teaching Colloquium in Secondary Education (1 Credit)**

Concurrent with Student Teaching; emphasis on applied decision making, group problem solving, and commitment to life-long learning. (Formerly 5300:496)

**EDSE:497 Independent Study (1-3 Credits)**

Specific area of curriculum investigation pertinent to secondary education as determined by student's academic needs. (Formerly 5300:497)

## Technical Education (EDTE)

**EDTE:400 Adult Learning (3 Credits)**

Describes characteristics of the adult learner and examines issues, factors, and strategies pertinent to successful facilitation of learning in a variety of training environments. (Formerly 5400:400)

**EDTE:401 Learning with Technology (3 Credits)**

Application of learning technologies to situations encountered by academic and professional learners. Addresses foundational concepts of computer literacy, ethics, security, collaboration, and learning design. (Formerly 5400:401)

**EDTE:413 Instructional Design Profession (3 Credits)**

Examination of the Instructional Design profession, its history, trends, issues and impact on Instruction Design's future. Research on best practice in the field are explored. (Formerly 5400:413)

**EDTE:415 Talent Development and Training (3 Credits)**

Prerequisites: EDTE 401 or permission from instructor. Examine the training function within talent development from a global perspective. Explore best practices for today's workforce. Identify emerging trends and training solutions. (Formerly 5400:415)

**EDTE:420 eLearning by Design (3 Credits)**

Experiences in using, developing and evaluating learning technologies and media used for instructional design and training. (Formerly 5400:420)

**EDTE:430 Program Planning (3 Credits)**

Process of program planning and evaluation for instructional design and training for a variety of adult learning organizations. (Formerly 5400:430)

**EDTE:435 Systematic Instructional Design in Postsecondary Education (3 Credits)**

Prerequisites or corequisites: EDTE 401, EDTE 420, EDTE 430, admission to program, or permission of instructor. Examination of instructional design models with particular emphasis of the ADDIE model. Study of applications to Instructional Design Technology. (Formerly 5400:435)

**EDTE:475 Instructional Delivery (3 Credits)**

Prerequisite: Permission of department. Implementation of instructional design principals in the proposal, design, development, implementation, assessment and evaluation (ADDIE) of eLearning and other delivery of training courses. (Formerly 5400:475)

**EDTE:480 Globally Diverse Workforce (3 Credits)**

Study of cultural pluralism and disability in the workplace and the best practices, as related to training in adult learning organizations. (Formerly 5400:480)

**EDTE:481 Special Topics: Technical Education (1-4 Credits)**

See department for course description. (Formerly 5400:481)

**EDTE:490 Workshop: Technical Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. Delivered in a totally on-line format and face to face format with web enhancements. (Formerly 5400:490)

**EDTE:495 Postsecondary Education Practicum (3 Credits)**

Prerequisites: EDTE 400, EDTE 401, EDTE 405, EDTE 415, EDTE 420, EDTE 430, EDTE 435, and admission to the Postsecondary Technical Education program with a "C" or better in each EDTE course and a 2.5 or better overall GPA in EDTE courses, and an overall GPA of 2.5 or better. Directed instruction under the supervision of directing instructor and university supervisor, and development of instructional portfolio. (Formerly 5400:495)

**EDTE:497 Independent Study: Technical Education (1-3 Credits)**

Area of study determined by student's need. (Formerly 5400:497)

## Curricular and Instructional Studies (EDCI)

**EDCI:223 Urban Youth Mentoring (3 Credits)**

Urban youth mentoring and mentorship theory and practice in school-based settings; including the completion of 30 hours of urban mentorship field experience. (Formerly 5500:223)

**Gen Ed:** - Complex Issues Facing Society

**EDCI:230 Educational Technology (3 Credits)**

Prerequisite: 13-15 sem. hrs. with a 'C' or better in specific GenEd courses; EDFN 200 (may be taken as prerequisite or corequisite); FBI/BCI background checks. Effectively identifying, locating, evaluating, designing, preparing, and efficiently using educational technology as instructional resource in the classroom to support learning and teaching. (Formerly 5500:230)

**EDCI:240 Foundations of Literacy (3 Credits)**

Focus on building blocks of teaching children how to read with an emphasis on literacy development and an emphasis on research-based components of reading instruction. (Formerly 5500:240)

**EDCI:241 Word Study, Phonics & Spelling (3 Credits)**

Prerequisite: EDCI 240. Candidates will explore a variety of genres, types of texts, resources, and instructional strategies to maximize students' comprehension, fluency, and vocabulary growth. (Formerly 5500:241)

**EDCI:245 Understanding Literacy Development & Phonics (3 Credits)**

Prerequisite: admission to Teacher Preparation Program. Children's literacy development is explored through an integrated instructional model, with emphasis on the role of comprehension, phonics, and functional spelling in language learning. (10 hours of service learning) (Formerly 5500:245)

**EDCI:251 Teaching Personal Finance in the PK-12 Classroom (3 Credits)**

Teacher candidates learn best practices in planning and implementing standards-based personal finance and economic instruction. (Formerly 5500:251)

**EDCI:286 Teaching Multiple Texts (3 Credits)**

Prerequisite: EDCI 240. Candidates will explore a variety of genres, types of texts, resources, and instructional strategies to maximize students' comprehension, fluency, and vocabulary growth. 10 field hours. (Formerly 5500:286)

**EDCI:308 Instructional Design and Assessment (6 Credits)**

Prerequisites: EDFN 220 and EDIS 225. Theoretical and practical foundations for standards-based instruction and assessment; including instructional design, assessment development, and classroom practice for all learners in diverse and inclusive settings. 30 Field Hours. (Formerly 5500:308)

**EDCI:310 Instructional Design (3 Credits)**

Prerequisites: EDFN 210, EDFN 211, and admission to LBJFF School of Education. Corequisite: EDCI 311. Design and teach lessons using instructional models, strategies, and resources for students with different characteristics and design appropriate assessments to measure content mastery. (Formerly 5500:310)

**EDCI:311 Instructional Resources (3 Credits)**

Prerequisites: EDFN 210, EDFN 211; Corequisite: EDCI 310. Examines existing and developing media, technological, human and environmental resources as they relate to learning. Includes identifying, locating, evaluating, using, designing, and preparing educational resources. (Formerly 5500:311)

**EDCI:320 Diversity in Learners (3 Credits)**

Prerequisites: EDFN 210, EDFN 211. Students learn to appreciate common core culture, the diversity in the student population and the democratic ideal of equal access to educational opportunity. (10 hours of field experience included.) (Formerly 5500:320)

**EDCI:330 Classroom Management (3 Credits)**

Prerequisites: EDFN 210, EDFN 211. Content regarding effective organization of the classroom as well as procedures and models for mediation of student behaviors will be presented. (Formerly 5500:330)

**EDCI:341 Laboratory Practicum in Reading (3 Credits)**

Prerequisite: EDCI 445. Laboratory experience with classroom, small groups and individual situations. A student diagnoses, implements procedures and follows prescribed reading improvement practices. (25.5 field hours) (Formerly 5500:341)

**EDCI:360 Educational Planning: Instruction, Assessment and Classroom Management (3 Credits)**

Prerequisites: EDCI 230, EDFN 200, EDFN 220; EDIS 225; prerequisite or corequisite: EDFN 300. Theoretical foundations for standards-based thematic units and lesson plans, classroom assessment and organization, including procedures and models for mediating student behavior and classroom management. (Formerly 5500:360)

**EDCI:370 Educational Implementation: Instruction, Assessment and Classroom Management (3 Credits)**

Prerequisites: EDCI 360, EDFN 300. Interpretation and application of standards-based thematic units and lesson plans; classroom assessment and organization, including mediation of student behaviors and classroom management. (Formerly 5500:370)

**EDCI:403 Global Education & Technology (3 Credits)**

This course focuses on theories, materials, and methods for teaching global education through e-learning and web-based tools. (Formerly 5300:303)

**EDCI:430 Honors Research Project: Early Childhood (1-6 Credits)**

Prerequisite: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (May be repeated for a total of six credits). (Formerly 5200:430)

**EDCI:431 Honors Research Project: Secondary Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5300:430)

**EDCI:432 Honors Research Project: Special Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5610:430)

**EDCI:433 Honors Research Project: Middle Level Education (1-6 Credits)**

(May be repeated for a total of six credits.) Prerequisites: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5250:430)

**EDCI:439 Engineering for Educators (3 Credits)**

Prerequisite: EDCI 308. Engineering design concepts and their applications course for teachers/teacher candidates. Students will engage in engineering problem solving activities and design lesson plans that address science and engineering practices. (Next Generation Science Standards) (Formerly 5500:439)

**EDCI:440 Literacy in the Content Areas (3 Credits)**

Prerequisite: EDCI 308. Prepare candidates to understand issues and use methods and materials to promote disciplinary literacy in middle and secondary classrooms (20 hours clinical). (Formerly 5500:440)

**EDCI:442 Teaching Reading to Culturally Diverse Learners (3 Credits)**

Prerequisites: EDCI 245, EDCI 286. The course is designed to provide students with knowledge, skills, and attitudes that will enable employment of effective methods of teaching reading to culturally different learners and/or learners whose language patterns are nonstandard. (Formerly 5500:442)

**EDCI:445 Assessment and Instruction in Literacy (3 Credits)**

Prerequisites: EDCI 240, EDCI 241, and [EDCI 286 or EDCI 440] with a grade of C or better. This course explores the assessment of students' progress in language literacy. Formal and informal instruments identifying progress in reading, writing, speaking, and listening are examined implemented. There are 30 hours of field experience included in this course. (Formerly 5500:445)

**EDCI:450 Nature, History, and Philosophy of Science (3 Credits)**

(May be repeated with a change in topic). Provides opportunities to examine the historical and philosophical perspectives of science in an online medium and the impact of science and technology on society. (Formerly 5500:450)

**EDCI:455 Literacy for Multiage Licensure (3 Credits)**

Prerequisite: Admission to Teacher Education Program. Organizing instruction, use of oral language development protocols, strategies for word skill development, comprehension and assessment as they relate to content areas. (Formerly 5500:455)

**EDCI:456 Scaffolding Language and Content Learning for English Learners (3 Credits)**

Prerequisite: ENGL 473. This course prepares students to use quality, research-based sheltered instruction for improving teaching effectiveness and accelerating academic achievement achievement for English learners. (Formerly 5500:456)

**EDCI:458 Inclusive Field Experience (1 Credit)**

Corequisite: EDIS 457. In this inclusive field experience, teacher candidates explore the challenges and best practices in providing quality educational services for all learners. (20 field hours) (Formerly 5500:458)

**EDCI:475 Instructional Technology Applications (3 Credits)**

Prerequisite: EDCI 230 and EDCI 360. Focus on developing learner competencies in the use of instructional technologies to enhance both the instructor's personal and professional productivity. (Formerly 5500:475)

**EDCI:480 Special Topics: Curriculum & Instruction (1-6 Credits)**

Group study of special topics of critical, contemporary concern in professional education. (May be repeated with a change in topic) (Formerly 5500:480)

**EDCI:484 Principles of Bilingual/Multicultural Education (3 Credits)**

An introduction to the theoretic, cultural, sociolinguistic bases of bilingual/multicultural education. Legislation, court decisions, program implementation included. (Formerly 5500:484)

**EDCI:485 Teaching Literacy to English Learners (3 Credits)**

Prerequisite: Admission to the LBJFF School of Education. Course applies methodologies for teaching literacy to English learners, assessment of literacy skills and development of materials. 12 field hours of field experience are required. (Formerly 5500:485)

**EDCI:486 Teaching Mathematics, Social Studies & Science to Bilingual Students (3 Credits)**

Prerequisites: Completion of all age-appropriate methods courses. Course applies methodologies for teaching mathematics, science, social studies in the bilingual/multicultural classroom. The bilingual student's native language stressed. (Formerly 5500:486)

**EDCI:487 Techniques of Teaching English as a Second Language (3 Credits)**

Course includes teaching language skills to Limited English Proficient students in grades K-12, administration of language assessment tests, selection and evaluation of materials. (10 field hours) (Formerly 5500:487)

**EDCI:488 Practicum: Teaching English as a Second Language (2 Credits)**

Prerequisites: EDCI 485 and EDCI 487. A practical experience in which teacher candidates observe, participate, and practice teaching in an ESL classroom under the supervision of an experienced, certified/licensed teacher. (Formerly 5500:488)

**EDCI:490 Workshop: Curriculum & Instruction (1-3 Credits)**

Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques. (Formerly 5500:490)

**EDCI:491 Workshop: Curriculum & Instruction (1-3 Credits)**

Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques. (Formerly 5500:491)

**EDCI:492 Workshop: Curriculum & Instruction (1-3 Credits)**

Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques. (Formerly 5500:492)

**EDCI:497 Independent Study (1-3 Credits)**

Prerequisite: Permission of advisor and department chair. Specific area of curriculum investigation pertinent to the general curriculum and instruction area as determined by student's academic needs. (Formerly 5500:497)

## Special Education Programs (EDSP)

**EDSP:492 Workshop in Reading (1-3 Credits)**

Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units. (Formerly 5800:492)

**EDSP:493 Workshop on Exceptional Children (1-3 Credits)**

Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units. (Formerly 5800:493)

**EDSP:494 International School Study (3-6 Credits)**

On-the-scene study of education in foreign countries, usually by concentrating on the study of schools in one restricted geographical area. (Formerly 5800:494)

## AYA Chemistry Licensure, BA

### Bachelor of Arts in Education, Adolescent to Young Adult Chemistry Licensure (Grades 7-12) (530613BA)

More on the Adolescent to Young Adult Chemistry Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or

- c. A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.

#### 6. Signed Criminal Background Check Acknowledgment Form

The LeBron James Family Foundation School of Education  
Zook Hall, Room 002  
Akron, Ohio 44325-4201  
(330) 972-7750

The following information has official approval of **The LeBron James Family Foundation School of Education** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Science Students	39-44
	Content Requirements for Chemistry Licensure Students	64
	Additional Major Electives *	6-1
	<b>Total Hours</b>	<b>143</b>

\* This major requires a minimum of 143 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

#### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
or COMM:10 Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111 English Composition I

ENGL:112 English Composition II

#### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

#### Diversity

Domestic Diversity

Global Diversity

#### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
<b>Total Hours</b>		<b>39-44</b>

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Chemistry Licensure Students <sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1



CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
PHYS:130	Descriptive Astronomy	4
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
<b>Chemistry</b>		
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:313	Physical Chemistry Lecture I	3
CHEM:314	Physical Chemistry Lecture II	3
CHEM:401	Biochemistry Lecture I	3
CHEM:423	Analytical Chemistry I	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
STAT:260	Basic Statistics	3
Total Hours		64

<sup>1</sup> 64 credit hours with a GPA of 2.5 or better.

## AYA Chemistry/Earth Licensure, BA Bachelor of Arts in Education, Adolescent to Young Adult Chemistry/Earth Licensure (Grades 7-12) (530508BA)

More on the Adolescent to Young Adult Chemistry/Earth Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

### School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**

- A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
    - A composite ACT score of 21 or higher, or
    - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
    - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
  - Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Science Students	39-44
	Content Requirements for Chemistry/Earth Licensure Students	81
	Additional Major Electives *	9-4
	Total Hours	163

\* This major requires a minimum of 163 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

Code	Title	Hours
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
COMM:105	Introduction to Public Speaking	

or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>	
ENGL:111	English Composition I
ENGL:112	English Composition II
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
Total Hours		39-44

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Chemistry/Earth Licensure Students <sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
<i>Select one of the following physics options:</i>		<b>8</b>
PHYS:261 & PHYS:262	Physics for Life Sciences I and Physics for Life Sciences II	
PHYS:291 & PHYS:292	Elementary Classical Physics I and Elementary Classical Physics II	
<b>Earth Science</b>		
GEOL:137	Earth's Atmosphere & Weather	1
GEOL:200	Environmental Geology	3
GEOL:201	Exercises in Environmental Geology I	1
GEOL:203	Exercises in Environmental Geology II	1
GEOL:371	Oceanography	4
GEOL:455	Field Studies in Geology	1-3
or GEOL:499	Research Problems in Geology	
PHYS:130	Descriptive Astronomy	4
<b>Chemistry</b>		
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:305	Physical Chemistry for the Biological Sciences	4
CHEM:380	Advanced Chemistry Laboratory I	2
CHEM:401	Biochemistry Lecture I	3
CHEM:423	Analytical Chemistry I	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:260	Basic Statistics	3
Total Hours		79-81

<sup>1</sup> 81 credit hours with a GPA of 2.5 or better.

## Additional Requirements to Add Integrated Science Licensure

**These courses are not required for the Chemistry/Earth Licensure**

Code	Title	Hours
BIOL:217	General Ecology	
BIOL:265	Introductory Human Physiology	
PHYS:133	Music, Sound & Physics	
or PHYS:137	Light	

# AYA Chemistry/Physics Licensure, BA Bachelor of Arts in Education, Adolescent to Young Adult Chemistry/Physics Licensure (Grades 7-12) (530509BA)

More on the Adolescent to Young Adult Chemistry/Physics Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

The LeBron James Family Foundation School of Education  
Zook Hall, Room 002  
Akron, Ohio 44325-4201  
(330) 972-7750

The following information has official approval of **The LeBron James Family Foundation School of Education** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon*

*many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Science Students	39-44
	Content Requirements for Chemistry/Earth Licensure Students	81
	Additional Major Electives *	10-5
	<b>Total Hours</b>	<b>164</b>

\* This major requires a minimum of 164 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
Total Hours		39-44

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Chemistry/Physics Licensure Students

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	1-3
or CHEM:152	Principles of Chemistry I Laboratory	
CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
<b>Elementary Classical Physics</b>		
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
<b>Physics</b>		
PHYS:130	Descriptive Astronomy	4
PHYS:133	Music, Sound & Physics	1-4
or PHYS:293	Physics Computations I	
PHYS:301	Modern Physics	3

PHYS:322	Intermediate Laboratory I	3
PHYS:323	Intermediate Laboratory II	3
<b>Chemistry</b>		
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:305	Physical Chemistry for the Biological Sciences	4
CHEM:380	Advanced Chemistry Laboratory I	2
CHEM:401	Biochemistry Lecture I	3
CHEM:423	Analytical Chemistry I	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:260	Basic Statistics	3
Total Hours		75-80

## Additional Requirements to Add Integrated Science Licensure

These courses are not required for the Chemistry/Physics Licensure

Code	Title	Hours
BIOL:217	General Ecology	
BIOL:265	Introductory Human Physiology	
GEOL:128	Geology of Ohio	
GEOL:137	Earth's Atmosphere & Weather	
GEOL:171	Introduction to the Oceans	
GEOL:200	Environmental Geology	

## AYA Earth Science Licensure, BA

### Bachelor of Arts in Education, Adolescent to Young Adult Earth Science Licensure (Grades 7-12) (530611BA)

More on the Adolescent to Young Adult Earth Science Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may

not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.

3. **Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
4. **Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - a. A composite ACT score of 21 or higher, or
  - b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - c. A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
5. **Evidence of competency in mathematics as shown by one of the following:**
  - a. A composite ACT score of 21 or higher, or
  - b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - c. A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
6. **Signed Criminal Background Check Acknowledgment Form**

The LeBron James Family Foundation School of Education  
Zook Hall, Room 002  
Akron, Ohio 44325-4201  
(330) 972-7750

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Science Students	39-44
	Content Requirements for Earth Science Licensure Students	54
	Additional Major Electives *	1-0
	<b>Total Hours</b>	<b>128-132</b>

\* This major requires a minimum of 128 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

<b>Academic Foundations</b>	<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
COMM:105 Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>	
ENGL:111 English Composition I	
ENGL:112 English Composition II	
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	

Total Hours 34

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
<b>Total Hours</b>		<b>39-44</b>

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Earth Science Licensure Students <sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
PHYS:130	Descriptive Astronomy	4
PHYS:261	Physics for Life Sciences I	4
PHYS:262	Physics for Life Sciences II	4
<b>Earth Science</b>		
GEOL:137	Earth's Atmosphere & Weather	1
GEOL:200	Environmental Geology	3
GEOL:203	Exercises in Environmental Geology II	1
GEOL:371	Oceanography	4
GEOL:455	Field Studies in Geology	1-3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
STAT:260	Basic Statistics	3
Total Hours		52-54

<sup>1</sup> 54 credit hours with a GPA of 2.5 or better.

## AYA Earth Science/Physics Licensure, BA

### Bachelor of Arts in Education, Adolescent to Young Adult Earth Science/Physics Licensure (Grades 7-12) (530600BA)

More on the Adolescent to Young Adult Earth Science/Physics Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Science Students	39-44
	Content Requirements for Earth Science/Physics Licensure Students	73
	Additional Major Electives *	9-4
	<b>Total Hours</b>	<b>155</b>

\* This major requires a minimum of 155 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
	<b>Total Hours</b>	<b>34</b>

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0

EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
	<b>Total Hours</b>	<b>39-44</b>

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Earth Science/Physics Licensure Students <sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
<b>Elementary Classical Physics</b>		
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
<b>Earth Science</b>		
GEOL:137	Earth's Atmosphere & Weather	1
GEOL:200	Environmental Geology	3
GEOL:201	Exercises in Environmental Geology I	1
GEOL:203	Exercises in Environmental Geology II	1
GEOL:371	Oceanography	4
GEOL:455	Field Studies in Geology	1-3
or GEOL:499	Research Problems in Geology	
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:260	Basic Statistics	3
<b>Physics and Earth Science</b>		

PHYS:130	Descriptive Astronomy	4
<b>Physics</b>		
PHYS:133 or PHYS:137	Music, Sound & Physics Light	4
PHYS:267 or PHYS:293	Life Science Physics Computations I Physics Computations I	1
PHYS:301	Modern Physics	3
PHYS:322	Intermediate Laboratory I	3
PHYS:323	Intermediate Laboratory II	3

<sup>1</sup> 73 credit hours with a GPA of 2.5 or better.

## Additional Requirements to Add Integrated Science Licensure

These courses are not required for the Earth Science/ Physics Licensure

Code	Title	Hours
BIOL:217	General Ecology	
BIOL:265	Introductory Human Physiology	
CHEM:263	Organic Chemistry Lecture I	
CHEM:264	Organic Chemistry Lecture II	
CHEM:265	Organic Chemistry Laboratory I	

## AYA Integrated Language Arts, BA Bachelor of Arts in Education, Adolescent to Young Adult Integrated Language Arts (Grades 7-12) (530701BA)

More on the Adolescent to Young Adult Integrated Language Arts major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**

- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Integrated Language Arts Students	36-41
	Content Requirements for Undergraduate Integrated Language Arts Students	40-43
	Additional Credits for Graduation *	10-2
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		



<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication
<i>Writing: 6 credit hours</i>	
ENGL:111	English Composition I
ENGL:112	English Composition II
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## Professional Education Requirements for Undergraduate Integrated Language Arts Students <sup>1</sup>

Code	Title	Hours
<b>Phase One: Learning about Learners</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDCI:308	Instructional Design and Assessment	6
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two: Learning about Teaching</b>		
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
<b>Phase Three: Learning to Apply the Principles of Teaching</b>		
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
<b>Phase Four: Learning to Teach</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
Total Hours		36-41

<sup>1</sup> 36 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Corequisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Undergraduate Integrated Language Arts Students <sup>1</sup>

Code	Title	Hours
<b>Literature</b>		
ENGL:301	English Literature I	3
ENGL:315	Shakespeare: The Early Plays	3
or ENGL:316	Shakespeare: The Mature Plays	
ENGL:341	American Literature I	3
ENGL:362	World Literatures	3
or ENGL:389	Special Topics: Literature & Language	
EDSE:330	Teaching Adolescent/Middle Level Literature	3
<i>Complete one elective at the 300/400 level in each area:</i>		
	Multicultural Literature	3
	Women's Literature	3
	Literature	3
<b>Writing/Composition-Journalism</b>		
ENGL:300	Critical Reading & Writing	3
EDML:351	Modes of Writing for the Middle Grades	3
COMM:300	Newswriting Across the Media	3
<b>Language</b>		
ENGL:371	Introduction to Linguistics	3
EDSE:335	Language Learning in Secondary Schools	1-4
or EDSE:480	Special Topics: Secondary Education	
<b>Communication</b>		
<i>Select one of the following:</i>		
COMM:324	Interpersonal Communication	3
COMM:245	Argumentation	
COMM:352	Persuasion	
COMM:305	Communication Theory	
COMM:344	Small Group Communication	
Total Hours		40-43

<sup>1</sup> 42 credit hours with a GPA of 2.5 or better.

## AYA Integrated Mathematics, BA Bachelor of Arts in Education, Adolescent to Young Adult Integrated Mathematics Licensure (Grades 7-12) (530702BA)

More on the Adolescent to Young Adult Integrated Mathematics Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

The LeBron James Family Foundation School of Education includes the areas of early childhood inclusive, middle childhood, secondary (adolescent to young adult), preschool to grades 12 (P-12) education and the areas of special education as an intervention specialist for early childhood (P-3 mild/moderate/ intensive), mild to moderate (K-12) or moderate to intensive (K-12). Initial Professional Education programs are available at the undergraduate, post-baccalaureate and master's degree levels. The secondary program prepares teachers of grades seven to twelve to teach language arts, mathematics, science, or social studies.

### School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

The LeBron James Family Foundation School of Education  
Zook Hall, Room 002

Akron, Ohio 44325-4201  
(330) 972-7750

The following information has official approval of **The LeBron James Family Foundation School of Education** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Mathematics Students	39-44
	Content Requirements for Undergraduate Integrated Mathematics Students	39-41
	Additional Credits for Graduation *	8-1
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

### Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## Professional Education Requirements for Undergraduate Mathematics Students<sup>1</sup>

Code	Title	Hours
<b>Professional Education</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase II:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
Total Hours		39-44

<sup>1</sup> 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE content test. Planned teaching experience in schools selected and supervised by the Office of Field experiences. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching fields. Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Undergraduate Integrated Mathematics Students

### Theoretical Math Option<sup>1</sup>

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:307	Fundamentals of Advanced Mathematics	3
MATH:312	Linear Algebra	3
MATH:335	Introduction to Ordinary Differential Equations	3
or MATH:412	Abstract Algebra II	
or MATH:421	Advanced Calculus I	
MATH:401	History of Mathematics	3
MATH:411	Abstract Algebra I	3
MATH:441	Concepts in Geometry	4

CPSC:209	Computer Science I	4
STAT:461	Applied Statistics	4
Total Hours		39

<sup>1</sup> Students must have a GPA of 2.5 or higher in the mathematics content area prior to student teaching.

### STEM-Based Option

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
or MATH:209	Discrete Mathematics for Educators	
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:312	Linear Algebra	3
MATH:401	History of Mathematics	3
MATH:441	Concepts in Geometry	4
STAT:461	Applied Statistics	4
CPSC:200	Programming for Data Science	4
PHYS:291	Elementary Classical Physics I	4
EDCI:439	Engineering for Educators	3
Total Hours		41

## Recommended Sequence

### Theoretical Option:

#### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
MATH:221 Analytic Geometry-Calculus I	4
CPSC:209 Computer Science I	4
Natural Science with Lab Requirement	4
Hours	15

#### Spring Semester

ENGL:112 English Composition II	3
MATH:222 Analytic Geometry-Calculus II	4
Speaking Requirement	3
Natural Science Requirement	3
Social Science Requirement	3
Hours	16

#### 2nd Year

##### Fall Semester

MATH:223 Analytic Geometry-Calculus III	4
MATH:307 Fundamentals of Advanced Mathematics	3
EDFN:200 Introduction to Education	3
EDSE:100 Orientation to the AYA/P-12 Multi-Age Programs	0
Social Science Requirement	3
Humanities Requirement	3
Hours	16

##### Spring Semester

EDFN:220 Educational Psychology	3
EDIS:225 Introduction to Exceptionalities	3

MATH:312	Linear Algebra	3
STAT:461	Applied Statistics	4
	Arts Requirement	3
Hours		16

**3rd Year**

**Fall Semester**

EDCI:308	Instructional Design and Assessment	6
MATH:411	Abstract Algebra I	3
	Art/Humanities Requirement	3
Select one of the following:		
MATH:335	Introduction to Ordinary Differential Equations	3
MATH:421	Advanced Calculus I	
Hours		15

**Spring Semester**

EDSE:320	Introduction to Teaching in the Content Area	3
MATH:401	History of Mathematics	3
	Complex Issues Requirement	3
	General Elective	3
	Global Diversity Requirement or General Elective	3
Hours		15

**4th Year**

**Fall Semester**

MATH:441	Concepts in Geometry	4
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:430	Clinical Teaching I	3
EDCI:440	Literacy in the Content Areas	3
	Domestic Diversity Requirement or General Elective	3
Hours		16

**Spring Semester**

EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:431	Clinical Teaching II	3
EDSE:495	Student Teaching: Secondary Education	6
Hours		12
Total Hours		121

**STEM Option:**

**1st Year**

**Fall Semester**

ENGL:111	English Composition I	3
MATH:208	Introduction to Discrete Mathematics	4
MATH:221	Analytic Geometry-Calculus I	4
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
Hours		14

**Spring Semester**

ENGL:112	English Composition II	3
MATH:222	Analytic Geometry-Calculus II	4

	Social Science Requirement	3
	Social Science Requirement	3
	Natural Science Requirement	3
Hours		16

**2nd Year**

**Fall Semester**

EDFN:200	Introduction to Education	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
MATH:223	Analytic Geometry-Calculus III	4
PHYS:291	Elementary Classical Physics I	4
	Humanities Requirement	3
	Arts Requirement	3
Hours		17

**Spring Semester**

EDFN:220	Educational Psychology	3
EDIS:225	Introduction to Exceptionalities	3
MATH:312	Linear Algebra	3
CPSC:200	Programming for Data Science	4
	Art/Humanities Requirement	3
Hours		16

**3rd Year**

**Fall Semester**

EDCI:308	Instructional Design and Assessment	6
STAT:461	Applied Statistics	4
	Complex Issues Requirement	3
	General Elective	3
Hours		16

**Spring Semester**

MATH:401	History of Mathematics	3
EDSE:320	Introduction to Teaching in the Content Area	3
EDCI:439	Engineering for Educators	3
	Global Diversity Requirement or General Elective	3
	General Elective	2-3
Hours		14-15

**4th Year**

**Fall Semester**

EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:430	Clinical Teaching I	3
EDCI:440	Literacy in the Content Areas	3
MATH:441	Concepts in Geometry	4
	Domestic Diversity Requirement or General Elective	3
Hours		16

**Spring Semester**

EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:431	Clinical Teaching II	3

EDSE:495	Student Teaching: Secondary Education	6
	Hours	12
	Total Hours	121-122

## AYA Integrated Science Licensure, BA Bachelor of Arts in Education, Adolescent to Young Adult Integrated Science Licensure (Grades 7-12) (530506BA)

More on the Adolescent to Young Adult Life/Biology-Earth Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

This program prepares secondary teacher candidates for licensure in Adolescent to Young Adult (AYA) - Integrated Science in the State of Ohio.

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	25
	Professional Education Requirements for Undergraduate Science Students	39
	Content Requirements for Integrated Science Students	50
	Content Option	14-17
	Total Hours	128-131

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
7600:105 or 7600:106		
<i>Writing: 6 credit hours</i>		
3300:111 3300:112		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		

Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
EDCI:308	Instructional Design and Assessment	6
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
Total Hours		39-44

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students submit an application to student teaching, and pass OAE Content tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Integrated Science Licensure Students <sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
GEOL:211	Introduction to Environmental Science	3
MATH:149	Precalculus Mathematics (or eligibility for Calculus)	4
STAT:260	Basic Statistics	3
PHYS:130	Descriptive Astronomy	4
PHYS:261	Physics for Life Sciences I	4
or PHYS:291	Elementary Classical Physics I	

PHYS:262	Physics for Life Sciences II	4
or PHYS:292	Elementary Classical Physics II	
EDCI:439	Engineering for Educators	3
Total Hours		50

<sup>1</sup> GPA of 2.5 or better in the Science Content Courses.

## Content Options

Code	Title	Hours
<i>Complete additional courses in one area:</i>		
<b>Biology</b>		

BIOL:130	Principles of Microbiology	
or BIOL:331	Microbiology	
BIOL:211	General Genetics	
BIOL:217	General Ecology	
BIOL:316	Evolutionary Biology	
BIOL:3xx/4xx	Elective (3 credits)	

<b>Chemistry</b>		
CHEM:263	Organic Chemistry Lecture I	
CHEM:265	Organic Chemistry Laboratory I	
CHEM:264	Organic Chemistry Lecture II	
CHEM:401	Biochemistry Lecture I	
CHEM:423	Analytical Chemistry I	

<b>Earth Science</b>		
GEOL:171	Introduction to the Oceans	
or GEOL:371	Oceanography	
GEOL:137	Earth's Atmosphere & Weather	
GEOL:451	Field/Lab Studies in Environmental Science	
or GEOL:452	Geology and Environmental Science Service Learning	
GEOL:xxx	Elective (3 credits)	
GEOL:3xx/4xx	Elective (3 credits)	
GEOL:3xx/4xx	Elective (3 credits)	

<b>Physics</b>		
PHYS:133	Music, Sound & Physics	
PHYS:301	Modern Physics	
PHYS:322	Intermediate Laboratory I	
PHYS:323	Intermediate Laboratory II	
MATH:221	Analytic Geometry-Calculus I	

Total Hours		14-17
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## Recommended Sequence

<b>1st Year</b>		
<b>Fall Semester</b>		<b>Hours</b>
ENGL:111	English Composition I	3
MATH:149	Precalculus Mathematics	4
BIOL:111	Principles of Biology I	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
Hours		15

<b>Spring Semester</b>		
ENGL:112	English Composition II	3
BIOL:112	Principles of Biology II	4

CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
STAT:260	Basic Statistics	3
	Hours	15

**2nd Year****Fall Semester**

GEOL:101	Introductory Physical Geology	4
EDFN:200	Introduction to Education	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
PHYS:261	Physics for Life Sciences I	4
	Speaking Requirement	3
	General Education course	3
	Hours	17

**Spring Semester**

GEOL:102	Introductory Historical Geology	4
GEOL:211	Introduction to Environmental Science	3
EDFN:220	Educational Psychology	3
PHYS:262	Physics for Life Sciences II	4
EDIS:225	Introduction to Exceptionalities	3
	Hours	17

**Summer Semester**

	Science Content or Gen Ed Requirements As needed	6
	Hours	6

**3rd Year****Fall Semester**

PHYS:130	Descriptive Astronomy	4
EDCI:308	Instructional Design and Assessment	6
	Science Content Course	3-4
	Science Content Course	3
	Hours	16-17

**Spring Semester**

EDSE:320	Introduction to Teaching in the Content Area	3
EDCI:439	Engineering for Educators	3
	Science Content Course	3-4
	Science Content Course	3-4
	Science Content Course	3-4
	Hours	15-18

**Summer Semester**

	Science Content Requirement	
	Hours	0

**4th Year****Fall Semester**

EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:430	Clinical Teaching I	3
EDCI:440	Literacy in the Content Areas	3
	Science Content Course	3-4
	Science Content Course	3
	Hours	15-16

**Spring Semester**

EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:431	Clinical Teaching II	3
EDSE:495	Student Teaching: Secondary Education	6-11
	Hours	12-17
	Total Hours	128-138

## AYA Integrated Social Studies, BA Bachelor of Arts in Education, Adolescent to Young Adult Integrated Social Studies Licensure (Grades 7-12) (530700BA)

More on the Adolescent to Young Adult Integrated Social Science Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Social Studies Students	39-44
	Content Requirements for Undergraduate Integrated Social Studies Students	48
	Additional Major Electives *	7-2
	<b>Total Hours</b>	<b>128</b>

\* This major requires a minimum of 128 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
or COMM:10 Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111 English Composition I

ENGL:112 English Composition II

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## Professional Education Requirements for Undergraduate Social Studies Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
<b>Total Hours</b>		<b>39-44</b>

<sup>1</sup> 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE content test. Planned teaching experience in schools selected and supervised by the Office of Field experiences. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching fields. Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Undergraduate Integrated Social Studies Students <sup>1</sup>

Code	Title	Hours
ECON:200	Principles of Microeconomics	3
ECON:201	Principles of Macroeconomics	3
GEOG:275	Geography of Cultural Diversity	2
HIST:251	U.S. History since 1877	3
HIST:310	Historical Methods	3
HIST:319	Medieval Europe, 500-1200	3
or HIST:320	Medieval Europe, 1200-1500	
or HIST:321	Europe: Renaissance to Religious Wars, 1350-1610	
or HIST:322	Europe: Absolutism to Revolution, 1610-1789	
HIST:323	Europe from Revolution to World War, 1789-1914	3
or HIST:324	Europe from World War I to the Present	
HIST:351	Global History: Encounters and Conflicts	4
HIST:470	Ohio History	3



HIST:487	Science and Technology in World History	3
POLIT:100	Government & Politics in the United States	3
POLIT:310	International Politics & Institutions	3
PSYC:100	Introduction to Psychology	3
SOCIO:100	Introduction to Sociology	3
EDCI:403	Global Education & Technology	3
EDCI:251	Teaching Personal Finance in the PK-12 Classroom	3
Total Hours		48

<sup>1</sup> 48 credit hours with a GPA of 2.5 or better.

## AYA Life Science Licensure, BA

### Bachelor of Arts in Education, Adolescent to Young Adult Life Science Licensure (Grades 7-12) (530610BA)

More on the Adolescent to Young Adult Life Science Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

The LeBron James Family Foundation School of Education  
Zook Hall, Room 002  
Akron, Ohio 44325-4201  
(330) 972-7750

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## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Professional Education Requirements for Undergraduate Science Students		39-44
Content Requirements for Life Science Licensure Students		60
Additional Major Electives *		9-4
Total Hours		142

\* This major requires a minimum of 142 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## Professional Education Requirements for Undergraduate Science Students<sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
Total Hours		39-44

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Life Science Licensure Students<sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
PHYS:130	Descriptive Astronomy	4

PHYS:261	Physics for Life Sciences I	4
PHYS:262	Physics for Life Sciences II	4
<b>Biology</b>		
BIOL:130	Principles of Microbiology	3-4
or BIOL:331	Microbiology	
BIOL:211	General Genetics	3
BIOL:212	Genetics Laboratory	1
BIOL:217	General Ecology	3
BIOL:265	Introductory Human Physiology	4
BIOL:316	Evolutionary Biology	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
STAT:260	Basic Statistics	3
Total Hours		59-60

<sup>1</sup> 60 credit hours with a GPA of 2.5 or better.

## AYA Life/Biology-Chemistry Licensure, BA

### Bachelor of Arts in Education, Adolescent to Young Adult Life/Biology-Chemistry Licensure (Grades 7-12) (530505BA)

More on the Adolescent to Young Adult Life/Biology-Chemistry Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

This program prepares teachers of grades seven to twelve for licensure in Biology and Chemistry in the State of Ohio.

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or

- c. A grade of B or higher in a course that meets the University's General Education English Composition I requirement.
5. **Evidence of competency in mathematics as shown by one of the following:**
- A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
6. **Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	26
	Professional Education Requirements for Undergraduate Science Students	39
	Content Requirements for Life/Biology-Chemistry Licensure Students	64-75
	<b>Total Hours</b>	<b>139-140</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Recommended General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.	
	<b>Academic Foundations</b>	<b>12</b>

*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
or COMM:10 Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111 English Composition I

ENGL:112 English Composition II

**Breadth of Knowledge 22**

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

**Diversity**

Domestic Diversity

Global Diversity

**Integrated and Applied Learning**

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

**Total Hours 34**

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
EDIS:225	Introduction to Exceptionalities	3
EDCI:308	Instructional Design and Assessment	6
EDCI:440	Literacy in the Content Areas	3
	<b>Total Hours</b>	<b>39-44</b>

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must submit an application to student teaching, and pass OAE Content tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Life/Biology-Chemistry Licensure Students <sup>1</sup>

Code	Title	Hours
	<b>Science Core</b>	
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4

CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
GEOL:101	Introductory Physical Geology	4
<i>Select one of the following:</i>		8
PHYS:261 & PHYS:262	Physics for Life Sciences I and Physics for Life Sciences II	
PHYS:291 & PHYS:292	Elementary Classical Physics I and Elementary Classical Physics II	
<b>Biology</b>		
BIOL:130 or BIOL:331	Principles of Microbiology Microbiology	3-4
BIOL:200 & BIOL:201 or BIOL:265	Human Anatomy & Physiology I and Human Anatomy & Physiology Laboratory I Introductory Human Physiology	4
BIOL:211	General Genetics	3
BIOL:217	General Ecology	3
BIOL:316	Evolutionary Biology	3
<b>Chemistry</b>		
CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:264	Organic Chemistry Lecture II	3
CHEM:305	Physical Chemistry for the Biological Sciences	4
CHEM:401	Biochemistry Lecture I	3
CHEM:423	Analytical Chemistry I	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:260	Basic Statistics	3
Total Hours		74-75

<sup>1</sup> 74-75 credit hours with a GPA of 2.5 or better.

## Recommended Sequence

### 1st Year

Fall Semester	Hours	
ENGL:111	English Composition I	3
BIOL:111	Principles of Biology I	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
MATH:221	Analytic Geometry-Calculus I	4
	Speaking Requirement	3
	Hours	18

### Spring Semester

ENGL:112	English Composition II	3
BIOL:112	Principles of Biology II	4
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
MATH:222	Analytic Geometry-Calculus II	4
	Hours	16

### 2nd Year

#### Fall Semester

BIOL:211	General Genetics	3
CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDIS:225	Introduction to Exceptionalities	3
	Hours	17

#### Spring Semester

CHEM:264	Organic Chemistry Lecture II	3
BIOL:217	General Ecology	3
STAT:260	Basic Statistics	3
EDCI:308	Instructional Design and Assessment	6
	General Education course	3
	Hours	18

#### Summer Semester

	Science Content or Gen Ed Requirements if needed	9
	Hours	9

### 3rd Year

#### Fall Semester

BIOL:130 or BIOL:331	Principles of Microbiology or Microbiology	3-4
PHYS:261	Physics for Life Sciences I	4
CHEM:305	Physical Chemistry for the Biological Sciences	4
EDCI:440	Literacy in the Content Areas	3
	General Education course	3
	Hours	17-18

#### Spring Semester

BIOL:316	Evolutionary Biology	3
PHYS:262	Physics for Life Sciences II	4
EDCI:439	Engineering for Educators	3
EDSE:320	Introduction to Teaching in the Content Area	3
	General Education course	3
	Hours	16

### 4th Year

#### Fall Semester

BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
CHEM:401	Biochemistry Lecture I	3
CHEM:423	Analytical Chemistry I	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDCI:431	Honors Research Project: Secondary Education	1-6
	Hours	14-19

**Spring Semester**

EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:495	Student Teaching: Secondary Education	6-11
EDSE:431	Clinical Teaching II	3
	Hours	12-17
	Total Hours	137-148

## AYA Life/Biology-Physics Licensure, BA

### Bachelor of Arts in Education, Adolescent to Young Adult Life/Biology-Physics Licensure (Grades 7-12) (530507BA)

More on the Adolescent to Young Adult Life/Biology-Physics Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Science Students	39-44
	Content Requirements for Life/Biology-Physics Licensure Students	84-85
	Additional Major Electives *	9-4
	Total Hours	166-167

\* This major requires a minimum of 166-167 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
	<i>Writing: 6 credit hours</i>	
ENGL:111	English Composition I	
ENGL:112	English Composition II	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	

Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
Total Hours		39-44

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Life Science and Physics Licensure Students <sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
<b>Elementary Classical Physics</b>		
PHYS:291	Elementary Classical Physics I	4

PHYS:292	Elementary Classical Physics II	4
<b>Biology</b>		
BIOL:130	Principles of Microbiology	3-4
or BIOL:331	Microbiology	
BIOL:211	General Genetics	3
BIOL:212	Genetics Laboratory	1
BIOL:217	General Ecology	3
BIOL:265	Introductory Human Physiology	4
BIOL:316	Evolutionary Biology	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:260	Basic Statistics	3
<b>Physics</b>		
PHYS:130	Descriptive Astronomy	4
PHYS:133	Music, Sound & Physics	4
or PHYS:137	Light	
PHYS:267	Life Science Physics Computations I	1
or PHYS:293	Physics Computations I	
PHYS:301	Modern Physics	3
PHYS:322	Intermediate Laboratory I	3
PHYS:323	Intermediate Laboratory II	3
<b>Chemistry</b>		
CHEM:154	Qualitative Analysis	2
CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
Total Hours		84-85

<sup>1</sup> 84-85 credit hours with a GPA of 2.5 or better.

## Additional Requirements to Add Integrated Science Licensure

These courses are not required for the Life/Biology-Physics Licensure

Code	Title	Hours
GEOL:128	Geology of Ohio	
GEOL:137	Earth's Atmosphere & Weather	
GEOL:171	Introduction to the Oceans	
GEOL:200	Environmental Geology	

## AYA Physics Licensure, BA

### Bachelor of Arts in Education, Adolescent to Young Adult Physics Licensure (Grades 7-12) (530612BA)

More on the Adolescent to Young Adult Physics Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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(330) 972-7750

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Undergraduate Science Students	39-44
	Content Requirements for Physics Licensure Students	55
	Additional Major Electives *	9-4
	<b>Total Hours</b>	<b>137</b>

\* This major requires a minimum of 137 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Professional Education Requirements for Undergraduate Science Students <sup>1</sup>

Code	Title	Hours
<b>Phase One:</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0

EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDCI:308	Instructional Design and Assessment	6
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two:</b>		
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
Total Hours		39-44

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Physics Licensure Students<sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
GEOL:101	Introductory Physical Geology	4
GEOL:102	Introductory Historical Geology	4
PHYS:130	Descriptive Astronomy	4
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
<b>Physics</b>		
PHYS:133	Music, Sound & Physics	4
or PHYS:137	Light	
PHYS:301	Modern Physics	3
PHYS:322	Intermediate Laboratory I	3
PHYS:323	Intermediate Laboratory II	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
STAT:260	Basic Statistics	3
Total Hours		55

<sup>1</sup> 55 credit hours with a GPA of 2.5 or better.

## Early Childhood Intervention Specialist, BS

### Bachelor of Science in Early Childhood, Intervention Specialist Licensure (Age 3 thru Grade 3) (561206BS)

More on the Intervention Specialist Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot> (<http://www.uakron.edu/education/academic-programs/CIS/how-to-apply.dot>).
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Early Childhood Intervention Specialist Students	57
	Content Requirements for Early Childhood Intervention Specialist Students	30
	Additional Major Electives *	9
	<b>Total Hours</b>	<b>130</b>

\* This major requires a minimum of 130 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
BIOL:265	Introductory Human Physiology	
CHEM:101	Chemistry for Everyone	
or CHEM:110	Introduction to General, Organic & Biochemistry I (Lecture)	
<i>Social Sciences: 6 credit hours</i>		
PSYC:100	Introduction to Psychology	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	

Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## Professional Education Requirements for Early Childhood Intervention Specialist Students <sup>1</sup>

Code	Title	Hours
<b>Phase One: Learning about Learners</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDCI:230	Educational Technology	3
EDCI:245	Understanding Literacy Development & Phonics <sup>2</sup>	3
EDIS:100	Orientation to Intervention Specialist	0
EDIS:225	Introduction to Exceptionalities	3
<b>Phase Two: Learning about Teaching</b>		
EDFN:300	Educational Equity and Excellence in a Culturally Pluralistic Society	3
EDCI:286	Teaching Multiple Texts	3
EDCI:360	Educational Planning: Instruction, Assessment and Classroom Management	3
EDCI:440	Literacy in the Content Areas	3
<b>Phase Three: Learning to Apply the Principles of Teaching</b>		
EDCI:370	Educational Implementation: Instruction, Assessment and Classroom Management	3
EDCI:445	Assessment and Instruction in Literacy	3
EDIS:450	Special Education Programming for Primary Teachers	3
EDIS:453	Special Education Programming: Moderate/Intensive I	3
EDIS:461	Special Education Programming: Early Childhood Moderate/Intensive	3
<b>Phase Four: Learning to Teach</b>		
EDIS:403	Student Teaching Colloquium: Special Education	1
EDIS:470	Clinical Practicum in Special Education	3
EDIS:485	Student Teaching: Early Childhood Intervention Specialist <sup>3</sup>	11
Total Hours		57

<sup>1</sup> 57 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> Service Learning required – minimum of 10 hours outside of class.

<sup>3</sup> All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. Co-requisite EDSE:496 Student Teaching Colloquium in Secondary Education. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Content Requirements for Early Childhood Intervention Specialist Students

Code	Title	Hours
CHFD:265	Child Development	3
CHFD:380	Play and Human Development	3
EDIS:380	Math Methods: Special Education	1-4
or EDPI:480	Special Topics: Elementary Education	
EDIS:448	Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications	3
EDIS:459	Collaboration & Consultation in Schools & Community	3
EDIS:460	Family Dynamics & Communication in the Educational Process	3
EDIS:464	Assessment & Evaluation in Early Childhood Special Education	3
EDIS:467	Management Strategies in Special Education	3
SLPA:101	American Sign Language I	3
SLPA:430	Aspects of Normal Language Development	3
Total Hours		28-31

## Middle Level Education, BS

### Bachelor of Science in Middle Level Education

- Language Arts and Science (520300BS)
- Language Arts and Mathematics (520301BS)
- Language Arts and Social Studies (520302BS)
- Science and Mathematics (520303BS)
- Science and Social Studies (520304BS)
- Mathematics and Social Studies (520305BS)

More on the Middle Level Education major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

### Program Description

This program prepares middle level teacher candidates for inclusive educational settings. Students will complete two of four focus areas (Language Arts, Science, Mathematics, Social Studies) when completing this program.

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

1. **School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
2. **Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
3. **Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
4. **Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - a. A composite ACT score of 21 or higher, or
  - b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - c. A grade of B or higher in a course that meets the University's General Education English Composition I requirement.
5. **Evidence of competency in mathematics as shown by one of the following:**
  - a. A composite ACT score of 21 or higher, or
  - b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - c. A grade of B or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
6. **Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Middle Level Education Students	51-52
	Areas of Concentration *	39-48
	<b>Total Hours</b>	<b>124-134</b>

\* Total number of required credit hours vary depending on chosen concentration areas.

## Recommended General Education Courses

**Code**                      **Title**    **Hours**

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

STAT:260      Basic Statistics

*Speaking: 3 credit hours*

COMM:105      Introduction to Public Speaking  
or COMM:106      Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111      English Composition I

ENGL:112      English Composition II

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

BIOL:103      Natural Science: Biology

CHEM:151      Principles of Chemistry I  
or CHEM:110      Introduction to General, Organic & Biochemistry I (Lecture)

*Social Sciences: 6 credit hours*

GEOG:100      Introduction to Geography <sup>1</sup>  
or PSYC:100      Introduction to Psychology  
or SOCIO:100      Introduction to Sociology

### Diversity

Domestic Diversity

HIST:250      U.S. History to 1877

HIST:251      U.S. History since 1877

SOCIO:100      Introduction to Sociology

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

<sup>1</sup> If Social Studies is one of the chosen concentration areas, substitute PSYC:100 or SOCIO:100 in lieu of GEOG:100.

## Professional Education Requirements for Middle Level Education Students <sup>1</sup>

Code	Title	Hours
<b>Professional Education Requirements</b>		
EDFN:200	Introduction to Education <sup>2</sup>	3
EDFN:220	Educational Psychology	3
EDIS:225	Introduction to Exceptionalities	3
EDML:100	Orientation to Middle Level Education	0
EDML:300	Middle Level Education <sup>2</sup>	3
EDCI:308	Instructional Design and Assessment <sup>2</sup>	6
EDCI:240	Foundations of Literacy	3
EDCI:241	Word Study, Phonics & Spelling	3
EDCI:440	Literacy in the Content Areas <sup>2</sup>	3
EDCI:445	Assessment and Instruction in Literacy	3
EDCI:223	Urban Youth Mentoring	3
<i>Choose two of the following based on concentration areas:</i>		6-7
EDML:333	Teaching Science to Middle Level Learners <sup>2</sup>	
EDML:338	Teaching Social Studies to Middle Childhood <sup>2</sup>	
EDML:342	Teaching Math to Middle Level Learners <sup>2</sup>	
EDML:350	Teaching Language Arts & Media to Middle Level Learners <sup>2</sup>	
EDML:498	Student Teaching Colloquium: Middle Grades <sup>3</sup>	3
EDML:499	Student Teaching: Middle Level Education <sup>3</sup>	9
<b>Total Hours</b>		<b>51-52</b>

<sup>1</sup> A grade of C or better must be earned in all courses in this area.

<sup>2</sup> Service Learning or Clinical Hours required outside of class.

<sup>3</sup> Planned teaching experience in schools selected and supervised by the Office of Student Teaching and Field Experience. Students must have approved application to student teaching, and pass appropriate OAE tests. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in student's major, in methods courses, core courses, and in their teaching fields. Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Areas of Concentration <sup>1</sup>

### Language Arts

Code	Title	Hours
ENGL:350	Black American Literature	3
ENGL:362	World Literatures	3
or ENGL:389	Special Topics: Literature & Language	
ENGL:470	History of English Language	3
or ENGL:478	Grammatical Structures of Modern English	
EDML:351	Modes of Writing for the Middle Grades	3
EDSE:330	Teaching Adolescent/Middle Level Literature <sup>2</sup>	3

ENGL:4xx	3 credits English Elective at 400 level	3
Total Hours		18

## Science

Code	Title	Hours
BIOL:103 or BIOL:111	Natural Science: Biology Principles of Biology I	4
CHEM:101	Chemistry for Everyone	4
GEOL:101	Introductory Physical Geology	4
GEOL:137	Earth's Atmosphere & Weather	1
GEOL:451 or GEOL:452	Field/Lab Studies in Environmental Science Geology and Environmental Science Service Learning	1-3
PHYS:130	Descriptive Astronomy	4
PHYS:261 or PHYS:401	Physics for Life Sciences I Everyday Physics	4
Total Hours		22-24

## Mathematics

Code	Title	Hours
STAT:250 or STAT:260	Statistics for Everyday Life Basic Statistics	3-4
MATH:140	Fundamentals of Mathematics for Primary Educators	3
MATH:240	Mathematical Foundations for Early Childhood Educators	3
MATH:208	Introduction to Discrete Mathematics	4
MATH:441	Concepts in Geometry	4
MATH:152	Technical Mathematics II	2
MATH:153	Technical Mathematics III	2
Total Hours		21-22

## Social Studies

Code	Title	Hours
GEOG:250	World Regional Geography	3
HIST:250	U.S. History to 1877	3
HIST:251	U.S. History since 1877	3
HIST:323 or HIST:324	Europe from Revolution to World War, 1789-1914 Europe from World War I to the Present	3
HIST:200	Empires of the Ancient World	3
HIST:470	Ohio History	3
POLIT:100	Government & Politics in the United States	3
EDCI:251	Teaching Personal Finance in the PK-12 Classroom	3
Total Hours		24

<sup>1</sup> Two areas of concentration are required to be completed. Students must maintain a 2.50 GPA overall in the area of concentration.

<sup>2</sup> Service Learning or Clinical Hours required outside of class.

## Recommended Sequence

1st Year		Hours
Fall Semester		
ENGL:111	English Composition I	3
STAT:260	Basic Statistics	3

Natural Science Requirement	3	
Arts/Humanities Requirement	3-4	
Social Science Requirement	3	
Hours		15-16

Spring Semester		Hours
ENGL:112	English Composition II	3
EDCI:223	Urban Youth Mentoring	3
	Speaking Requirement	3
	Social Science Requirement	3
	Natural Science w/ Lab Requirement	4
Hours		16

2nd Year		Hours
Fall Semester		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDML:100	Orientation to Middle Level Education	0
EDIS:225	Introduction to Exceptionalities	3
EDCI:240	Foundations of Literacy	3
	Arts/Humanities Requirement	4
Hours		16

Spring Semester		Hours
EDML:300	Middle Level Education	3
EDCI:241	Word Study, Phonics & Spelling	3
EDCI:308	Instructional Design and Assessment	6
	Content Coursework	4
Hours		16

3rd Year		Hours
Fall Semester		
EDCI:440	Literacy in the Content Areas	3
	Outstanding General Education Coursework	6
	Content Coursework	6-8
Hours		15-17

Spring Semester		Hours
EDCI:445	Assessment and Instruction in Literacy	3
EDML:338 or EDML:342	Teaching Social Studies to Middle Childhood or Teaching Math to Middle Level Learners	3
EDML:351	Modes of Writing for the Middle Grades	3
	Content Coursework	6-8
Hours		15-17

4th Year		Hours
Fall Semester		
EDML:350 or EDML:333	Teaching Language Arts & Media to Middle Level Learners or Teaching Science to Middle Level Learners	3-4
	Content Coursework	12
Hours		15-16

Spring Semester		Hours
EDML:498	Student Teaching Colloquium: Middle Grades	3

EDML:499	Student Teaching: Middle Level Education	9
	Hours	12
	Total Hours	120-126

## Middle Level Education, Dual Licensure, BS

### Bachelor of Science in Middle Level Education

- Language Arts and Science (520310BS)
- Language Arts and Mathematics (520311BS)
- Language Arts and Social Studies (520312BS)
- Science and Mathematics (520313BS)
- Science and Social Studies (520314BS)
- Mathematics and Social Studies (520315BS)

More on the Middle Level Education major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

### Program Description

This program prepares middle level teacher candidates for inclusive educational settings, serving needs of diverse learners including those with mild/moderate education needs. Students will complete two of four focus areas (Language Arts, Science, Mathematics, Social Studies) when completing this program.

### School of Education Admission Requirements

All students must complete the following requirements for admission to the School of Education:

1. **School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
2. **Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
3. **Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
4. **Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - a. A composite ACT score of 21 or higher, or
  - b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - c. A grade of B or higher in a course that meets the University's General Education English Composition I requirement.
5. **Evidence of competency in mathematics as shown by one of the following:**

- a. A composite ACT score of 21 or higher, or
- b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
- c. A grade of B or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.

#### 6. Signed Criminal Background Check Acknowledgment Form

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### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Middle Level Education Students	65-66
	Areas of Concentration	28-34
	Additional Major Electives *	6-10
	Total Hours	133-144

\* Total number of required credit hours vary depending on chosen concentration areas.

### Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

Academic Foundations		12
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
STAT:260	Basic Statistics	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	

<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
HIST:250 U.S. History to 1877 or HIST:251 U.S. History since 1877 or POLIT:100 Government & Politics in the United States	
<i>Natural Sciences: 7 credit hours</i>	
BIOL:103 Natural Science: Biology CHEM:101 Chemistry for Everyone or CHEM:11 (Introduction to General, Organic & Biochemistry I (Lecture))	
<i>Social Sciences: 6 credit hours</i>	
GEOG:100 Introduction to Geography <sup>1</sup> or PSYC:100 Introduction to Psychology or SOCIO:10 (Introduction to Sociology)	
<b>Diversity</b>	
<i>Domestic Diversity</i>	
HIST:250 U.S. History to 1877 HIST:251 U.S. History since 1877 SOCIO:100 Introduction to Sociology	
<i>Global Diversity</i>	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
<i>Complex Issues Facing Society</i>	
EDCI:223 Urban Youth Mentoring	
<i>Capstone</i>	
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

<sup>1</sup> If Social Studies is one of the chosen concentration areas, substitute PSYC:100 or SOCIO:100 in lieu of GEOG:100.

## Professional Education Requirements for Middle Level Education Students <sup>1</sup>

Code	Title	Hours
<b>Professional Education Core</b>		
EDFN:200	Introduction to Education <sup>2</sup>	3
EDFN:220	Educational Psychology	3
EDIS:225	Introduction to Exceptionalities	3
EDCI:308	Instructional Design and Assessment <sup>2</sup>	6
<b>Professional Education Literacy</b>		
EDCI:240	Foundations of Literacy	3
EDCI:241	Word Study, Phonics & Spelling	3
EDCI:440	Literacy in the Content Areas <sup>2</sup>	3
EDCI:445	Assessment and Instruction in Literacy	3
<b>Special Education Courses</b>		
EDCI:458	Inclusive Field Experience <sup>2</sup>	1
EDIS:457	Special Education Programming: Mild/Moderate II	4
EDIS:462	Collaboration with Families and Professionals	3
EDIS:463	Assessment in Special Education	3
EDIS:467	Management Strategies in Special Education	3
<b>Middle Childhood Requirement</b>		

EDML:100	Orientation to Middle Level Education	0
EDML:300	Middle Level Education <sup>2</sup>	3
EDCI:223	Urban Youth Mentoring <sup>2</sup>	3
<i>Select two courses which align with chosen teaching fields:</i>		6-7
EDML:333	Teaching Science to Middle Level Learners <sup>2</sup>	
EDML:338	Teaching Social Studies to Middle Childhood <sup>2</sup>	
EDML:342	Teaching Math to Middle Level Learners <sup>2</sup>	
EDML:350	Teaching Language Arts & Media to Middle Level Learners <sup>2</sup>	
<b>Student Teaching <sup>3</sup></b>		
EDML:498	Student Teaching Colloquium: Middle Grades	3
EDML:499	Student Teaching: Middle Level Education	9
<b>Total Hours</b>		<b>65-66</b>

<sup>1</sup> 65-66 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> Service Learning or Clinical Hours required outside of class.

<sup>3</sup> Planned teaching experience in schools selected and supervised by the Office of Student Teaching and Field Experience. Students must have approved application to student teaching, and pass appropriate OAE tests. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in student's major, in methods courses, core courses, and in their teaching fields. Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Areas of Concentration <sup>1</sup>

### Language Arts

Code	Title	Hours
ENGL:350	Black American Literature	3
ENGL:362	World Literatures	3
or ENGL:389	Special Topics: Literature & Language	
ENGL:470	History of English Language	3
or ENGL:478	Grammatical Structures of Modern English	
EDML:351	Modes of Writing for the Middle Grades	3
EDSE:330	Teaching Adolescent/Middle Level Literature <sup>2</sup>	3
ENGL:4xx	3 credits English Elective at 400 level	3
<b>Total Hours</b>		<b>18</b>

### Science

Code	Title	Hours
BIOL:103	Natural Science: Biology	4
or BIOL:111	Principles of Biology I	
CHEM:101	Chemistry for Everyone	4
GEOL:101	Introductory Physical Geology	4
GEOL:137	Earth's Atmosphere & Weather	1
GEOL:451	Field/Lab Studies in Environmental Science	1-3
or GEOL:452	Geology and Environmental Science Service Learning	
PHYS:130	Descriptive Astronomy	4
PHYS:261	Physics for Life Sciences I	4
or PHYS:401	Everyday Physics	
<b>Total Hours</b>		<b>22-24</b>

## Mathematics

Code	Title	Hours
STAT:260	Basic Statistics	3-4
or STAT:250	Statistics for Everyday Life	
MATH:140	Fundamentals of Mathematics for Primary Educators	3
MATH:240	Mathematical Foundations for Early Childhood Educators	3
MATH:208	Introduction to Discrete Mathematics	4
MATH:441	Concepts in Geometry	4
MATH:152	Technical Mathematics II	2
MATH:153	Technical Mathematics III	2
Total Hours		21-22

## Social Studies

Code	Title	Hours
GEOG:250	World Regional Geography	3
HIST:250	U.S. History to 1877	3
HIST:251	U.S. History since 1877	3
HIST:200	Empires of the Ancient World	3
HIST:323	Europe from Revolution to World War, 1789-1914	3
or HIST:324	Europe from World War I to the Present	
HIST:470	Ohio History	3
POLIT:100	Government & Politics in the United States	3
EDCI:251	Teaching Personal Finance in the PK-12 Classroom	3
Total Hours		24

<sup>1</sup> Two areas of concentration are required to be completed. Students must maintain a 2.50 GPA overall in the area of concentration.

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
STAT:260 Basic Statistics	3
Natural Sciences Requirement	3
Arts/Humanities Requirement	3-4
Speaking Requirement	3
Hours	15-16

### Spring Semester

ENGL:112 English Composition II	3
EDCI:223 Urban Youth Mentoring	3
Natural Sciences Requirement w/ lab	4
Social Sciences Requirement	3
Arts/Humanities Requirement	3
Hours	16

### 2nd Year

Fall Semester	Hours
EDFN:200 Introduction to Education	3
EDFN:220 Educational Psychology	3
EDML:100 Orientation to Middle Level Education	0
EDIS:225 Introduction to Exceptionalities	3
EDCI:240 Foundations of Literacy	3

Social Sciences Requirement	3
Hours	15

### Spring Semester

EDCI:308 Instructional Design and Assessment	6
EDCI:241 Word Study, Phonics & Spelling	3
EDML:300 Middle Level Education	3
Content Specific Coursework	6-7
Hours	18-19

### 3rd Year

#### Fall Semester

EDCI:440 Literacy in the Content Areas	3
EDCI:458 Inclusive Field Experience	1
EDIS:457 Special Education Programming: Mild/Moderate II	4

Content Specific Coursework	6-7
Outstanding General Education Requirements	3
Hours	17-18

#### Spring Semester

EDML:338 Teaching Social Studies to Middle Childhood	3
or EDML:342 Teaching Math to Middle Level Learners	

EDCI:445 Assessment and Instruction in Literacy	3
EDIS:462 Collaboration with Families and Professionals	3
EDIS:463 Assessment in Special Education	3
Content Specific Coursework	3-4
Hours	15-16

#### Summer Semester

Content Specific Coursework	3-6
Hours	3-6

### 4th Year

#### Fall Semester

EDIS:467 Management Strategies in Special Education	3
EDML:351 Modes of Writing for the Middle Grades	3-4
or EDML:333 Teaching Science to Middle Level Learners	
Content Specific Requirements	3

Select one course which align with chosen teaching fields:	6-7
Hours	15-17

#### Spring Semester

EDML:498 Student Teaching Colloquium: Middle Grades	3
EDML:499 Student Teaching: Middle Level Education	9
Hours	12
Total Hours	126-135

# Mild/Moderate Intervention Specialist, BS

## Bachelor of Science in Education, Mild/Moderate Intervention Specialist Licensure (Grades K thru 12) (561204BS)

More on the Mild/Moderate Intervention Specialist Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

The LeBron James Family Foundation School of Education  
Zook Hall, Room 002  
Akron, Ohio 44325-4201  
(330)972-7750

The following information has official approval of **The LeBron James Family Foundation School of Education and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion*

of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others. The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Mild/Moderate Intervention Specialist Students	78
	Additional Major Electives *	9
Total Hours		121

\* This major requires a minimum of 121 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

STAT:260 Basic Statistics

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking

or COMM:106 Effective Oral Communication

or COMM:263 Professional Communications and Presentations

*Writing: 6 credit hours*

ENGL:111 English Composition I

ENGL:112 English Composition II

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

HIST:210 Humanities in the Western Tradition from Ancient Times to 1500

*Natural Sciences: 7 credit hours*

BIOL:103 Natural Science: Biology

CHEM:101 Chemistry for Everyone

or CHEM:111 (Introduction to General, Organic & Biochemistry I (Lecture))

*Social Sciences: 6 credit hours*

PSYC:100 Introduction to Psychology

SOCIO:100 Introduction to Sociology

### Diversity

Domestic Diversity

SOCIO:100 Introduction to Sociology

Global Diversity



**Integrated and Applied Learning**

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## Professional Education Requirements for Mild/Moderate Intervention Specialist Students <sup>1</sup>

Code	Title	Hours
<b>Professional Education Core</b>		
EDFN:200	Introduction to Education <sup>2</sup>	3
EDFN:220	Educational Psychology	3
EDIS:100	Orientation to Intervention Specialist	0
EDIS:225	Introduction to Exceptionalities	3
EDCI:308	Instructional Design and Assessment <sup>2</sup>	6
<b>Professional Education Literacy</b>		
EDCI:240	Foundations of Literacy	3
EDCI:241	Word Study, Phonics & Spelling	3
EDCI:286	Teaching Multiple Texts	3
EDCI:440	Literacy in the Content Areas	3
EDCI:445	Assessment and Instruction in Literacy	3
<b>Special Education Courses</b>		
CHFD:265	Child Development	3
EDIS:448	Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications	3
EDIS:451	Special Education Programming: Mild/Moderate I	3
EDIS:453	Special Education Programming: Moderate/Intensive I	3
EDIS:380	Math Methods: Special Education	3
EDIS:452	Special Education Programming: Secondary/Transition	3
EDIS:462	Collaboration with Families and Professionals	3
EDIS:463	Assessment in Special Education	3
EDIS:467	Management Strategies in Special Education	3
EDIS:457	Special Education Programming: Mild/Moderate II <sup>2</sup>	4
EDCI:458	Inclusive Field Experience	1
EDIS:454	Special Education Programming: Moderate/Intensive II	3
EDIS:456	Inclusive Field Experience: Moderate/Intensive	1
<b>Student Teaching</b>		
EDIS:470	Clinical Practicum in Special Education	3
EDIS:486	Student Teaching: Mild/Moderate Educational Needs <sup>3</sup>	9
Total Hours		78

<sup>1</sup> 78 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> Service Learning required – minimum of 10 hours outside of class.

<sup>3</sup> Approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE content test. Planned teaching experience in schools selected and supervised by the Office of Field Experiences. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
COMM:105 Introduction to Public Speaking	3
HIST:210 Humanities in the Western Tradition from Ancient Times to 1500	3
PSYC:100 Introduction to Psychology	3
Mathematics, Statistics, and Logic Requirement	3
Hours	15

### Spring Semester

ENGL:112 English Composition II	3
SOCIO:100 Introduction to Sociology	3
Integrated and Applied Learning Requirement	3
Natural Science Requirement	3
Domestic Diversity Requirement	3
Hours	15

### 2nd Year

#### Fall Semester

EDFN:200 Introduction to Education	3
EDSE:100 Orientation to the AYA/P-12 Multi-Age Programs	0
Arts/Humanities Requirement	3
Arts/Humanities Requirement	3
Global Diversity Requirement	3
Natural Science with Lab Requirement	4
Hours	16

#### Spring Semester

EDCI:240 Foundations of Literacy	3
EDCI:223 Urban Youth Mentoring	3
EDFN:220 Educational Psychology	3
EDIS:225 Introduction to Exceptionalities	3
EDIS:448 Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications	3
Hours	15

### 3rd Year

#### Fall Semester

EDCI:308 Instructional Design and Assessment	6
EDCI:241 Word Study, Phonics & Spelling	3
EDIS:451 Special Education Programming: Mild/Moderate I	3

EDIS:462	Collaboration with Families and Professionals	3
Hours		15
<b>Spring Semester</b>		
EDIS:463	Assessment in Special Education	3
EDIS:467	Management Strategies in Special Education	3
EDIS:452	Special Education Programming: Secondary/Transition	3
EDIS:453	Special Education Programming: Moderate/Intensive I	3
EDCI:286	Teaching Multiple Texts	3
EDCI:440	Literacy in the Content Areas	3
Hours		18
<b>4th Year</b>		
<b>Fall Semester</b>		
EDIS:380	Math Methods: Special Education	3
EDIS:457	Special Education Programming: Mild/Moderate II	4
EDIS:456	Inclusive Field Experience: Moderate/Intensive	1
EDIS:454	Special Education Programming: Moderate/Intensive II	3
EDCI:445	Assessment and Instruction in Literacy	3
EDCI:458	Inclusive Field Experience	1
Hours		15
<b>Spring Semester</b>		
EDIS:486	Student Teaching: Mild/Moderate Educational Needs	9
EDIS:470	Clinical Practicum in Special Education	3
Hours		12
Total Hours		121

## Moderate/Intensive Intervention Specialist, BS

### Bachelor of Science in Education, Moderate/Intensive Intervention Specialist Licensure (Grades K thru 12) (561205BS)

More on the Moderate/Intensive Intervention Specialist Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

This program is designed to meet the standards for the State of Ohio teaching license for Intervention Specialist for students with moderate to intensive educational needs. Teacher candidates completing this program will be prepared to work as an Intervention Specialist with students who have mild/moderate educational needs and students with moderate/intensive needs. They will student teach in a moderate to intensive program prior to graduation.

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.
- Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Professional Education Requirements for Moderate/Intensive Intervention Specialist Students	80
	Additional Credits for Graduation *	10
	<b>Total Hours</b>	<b>124</b>

\* This major requires a minimum of 124 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
CHEM:101	Chemistry for Everyone	
or CHEM:111	(Introduction to General, Organic & Biochemistry I (Lecture)	
<i>Social Sciences: 6 credit hours</i>		
PSYC:100	Introduction to Psychology	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Professional Education Requirements for Moderate/Intensive Intervention Specialist Students <sup>1</sup>

Code	Title	Hours
<b>Professional Education Core (15 credits)</b>		
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDIS:100	Orientation to Intervention Specialist	0
EDIS:225	Introduction to Exceptionalities	3
EDCI:308	Instructional Design and Assessment	6
<b>Professional Education Literacy (15 credits)</b>		
EDCI:240	Foundations of Literacy	3
EDCI:241	Word Study, Phonics & Spelling	3
EDCI:286	Teaching Multiple Texts	3
EDCI:440	Literacy in the Content Areas	3
EDCI:445	Assessment and Instruction in Literacy	3
<b>Special Education Courses</b>		
CHFD:265	Child Development	3
EDIS:448	Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications	3
EDIS:451	Special Education Programming: Mild/Moderate I	3
EDIS:453	Special Education Programming: Moderate/Intensive I	3
EDIS:380	Math Methods: Special Education	3
EDIS:452	Special Education Programming: Secondary/Transition	3
EDIS:462	Collaboration with Families and Professionals	3
EDIS:463	Assessment in Special Education	3
EDIS:467	Management Strategies in Special Education	3
EDIS:457	Special Education Programming: Mild/Moderate II	4
EDCI:458	Inclusive Field Experience	1
EDIS:454	Special Education Programming: Moderate/Intensive II	3
EDIS:456	Inclusive Field Experience: Moderate/Intensive	1
<b>Student Teaching (12 credits)</b>		
EDIS:470	Clinical Practicum in Special Education	3
EDIS:487	Student Teaching: Moderate/Intensive Educational Needs	9
<b>Total Hours</b>		<b>78</b>

<sup>1</sup> 78 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> Service Learning required – minimum of 10 hours outside of class.

<sup>3</sup> All students must have an approved application to student teaching, and pass OAE Content and Reading tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student's major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
HIST:210	Humanities in the Western Tradition from Ancient Times to 1500	3
PSYC:100	Introduction to Psychology	3
COMM:105	Introduction to Public Speaking	3
	Mathematics, Statistics and Logic Requirement	3
Hours		15

### Spring Semester

ENGL:112	English Composition II	3
SOCIO:100	Introduction to Sociology	3
CHFD:265	Child Development	3
	Domestic Diversity Requirement	3
	Natural Science Requirement	3
	Complex Issues Requirement	3
Hours		18

### 2nd Year

#### Fall Semester

EDFN:200	Introduction to Education	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
	Global Diversity Requirement	3
	Natural Science with Lab Requirement	4
	Arts/Humanities Requirement	3
	Arts/Humanities Requirement	3
Hours		16

#### Spring Semester

EDCI:223	Urban Youth Mentoring	3
EDCI:240	Foundations of Literacy	3
EDIS:225	Introduction to Exceptionalities	3
EDFN:220	Educational Psychology	3
Hours		12

### 3rd Year

#### Fall Semester

EDIS:448	Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications	3
EDIS:451	Special Education Programming: Mild/Moderate I	3
EDIS:462	Collaboration with Families and Professionals	3
EDCI:241	Word Study, Phonics & Spelling	3
EDCI:308	Instructional Design and Assessment	6
Hours		18

#### Spring Semester

EDIS:453	Special Education Programming: Moderate/Intensive I	3
EDIS:452	Special Education Programming: Secondary/Transition	3
EDIS:463	Assessment in Special Education	3

EDIS:467	Management Strategies in Special Education	3
EDCI:286	Teaching Multiple Texts	3
EDCI:440	Literacy in the Content Areas	3
Hours		18

### 4th Year

#### Fall Semester

EDIS:454	Special Education Programming: Moderate/Intensive II	3
EDIS:456	Inclusive Field Experience: Moderate/Intensive	1
EDIS:457	Special Education Programming: Mild/Moderate II	4
EDIS:380	Math Methods: Special Education	3
EDCI:458	Inclusive Field Experience	1
EDCI:445	Assessment and Instruction in Literacy	3
Hours		15

#### Spring Semester

EDIS:487	Student Teaching: Moderate/Intensive Educational Needs	9
EDIS:470	Clinical Practicum in Special Education	3
Hours		12
Total Hours		124

## Primary Inclusive Teacher Preparation, BS

### Bachelor of Science in Primary Inclusive Teacher Preparation Program (Age 3 thru Grade 5) (561207BS)

More on the Inclusive Teacher Preparation major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

The Primary Inclusive Teacher Preparation Program prepares teachers to effectively work in inclusive educational settings, serving needs of children from preschool through grade 5, typically developing children and/or with mild/moderate/intensive educational needs.

## School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: <http://www.uakron.edu/education/academic-programs/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may

not access School of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.

3. **Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
4. **Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - a. A composite ACT score of 21 or higher, or
  - b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - c. A grade of "B" or higher in a course that meets the University's General Education English Composition I requirement.
5. **Evidence of competency in mathematics as shown by one of the following:**
  - a. A composite ACT score of 21 or higher, or
  - b. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - c. A grade of "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
6. **Signed Criminal Background Check Acknowledgment Form**

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Akron, Ohio 44325-4201  
(330)972-7750

The following information has official approval of **The LeBron James Family Foundation School of Education** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	12
	Professional Education Core	15
	Content Area	25
	Literacy Core	12
	Early Childhood Inclusion Core	54
	Student Teaching	12
	<b>Total Hours</b>	<b>130</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
	Complex Issues Facing Society	
	Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Professional Education Core

Code	Title	Hours
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDCI:308	Instructional Design and Assessment	6
EDIS:225	Introduction to Exceptionalities	3
<b>Total Hours</b>		<b>15</b>

## Content Area (may also fulfill General Education requirements)

Code	Title	Hours
<b>Arts &amp; Humanities</b>		
HIST:200	Empires of the Ancient World	3
HIST:210	Humanities in the Western Tradition from Ancient Times to 1500	3
	or HIST:221 Humanities in the World since 1300	
ART:210	Visual Arts Awareness	3
	or MUSIC:201 Exploring Music: Bach to Rock	
	or THEA:301 Introduction to Theatre Through Film	
<b>Social Sciences</b>		
GEOG:100	Introduction to Geography	3
HIST:250	U.S. History to 1877	3
<b>Natural Science</b>		
BIOL:103	Natural Science: Biology	4
GEOL:100	Earth Science	3
<b>Complex Systems Affecting Society</b>		

EDCI:223	Urban Youth Mentoring	3
Total Hours		25

## Literacy Core

Code	Title	Hours
EDCI:240	Foundations of Literacy	3
EDCI:241	Word Study, Phonics & Spelling	3
EDCI:286	Teaching Multiple Texts	3
EDCI:445	Assessment and Instruction in Literacy	3
Total Hours		12

## Early Childhood Inclusion Core

Code	Title	Hours
MATH:140	Fundamentals of Mathematics for Primary Educators	3
MATH:240	Mathematical Foundations for Early Childhood Educators	3
CHFD:265	Child Development	3
EDPI:100	Orientation to Early Childhood Specialist	0
EDPI:215	The Child, the Family, and the School	3
EDPI:319	Integrated Expressive Arts in Primary Grades	3
EDPI:325	Early Childhood Inclusive Practicum	3
EDPI:333	Science for Primary Teachers	3
EDPI:338	Social Studies for Primary Teachers	3
EDPI:340	Developmental Writing and Digital Literacies in Inclusive Early	3
EDPI:352	Teaching Mathematics in Inclusive Primary Settings	3
EDPI:330	Building Understanding in Early Childhood Settings	3
EDPI:454	Inquiry Learning in Primary Inclusive Settings	3
EDIS:448	Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications	3
EDIS:450	Special Education Programming for Primary Teachers	3
EDIS:453	Special Education Programming: Moderate/Intensive I	3
EDIS:462	Collaboration with Families and Professionals	3
EDIS:463	Assessment in Special Education	3
EDIS:467	Management Strategies in Special Education	3
Total Hours		54

## Student Teaching

Code	Title	Hours
EDIS:470	Clinical Practicum in Special Education	3
EDPI:499	Student Teaching in Inclusive Early Childhood Settings	9
Total Hours		12

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
COMM:105 or COMM:106 or COMM:263	Introduction to Public Speaking or Effective Oral Communication or Professional Communications and Presentations	3
BIOL:103	Natural Science: Biology	4
GEOG:100	Introduction to Geography	3
STAT:260 or STAT:250	Basic Statistics <sup>1</sup> or Statistics for Everyday Life	3-4
Hours		16-17

### Spring Semester

ENGL:112	English Composition II	3
GEOL:100	Earth Science	3
HIST:250	U.S. History to 1877	3
CHFD:265	Child Development	3
MUSIC:201 or ART:210 or THEA:301	Exploring Music: Bach to Rock or Visual Arts Awareness or Introduction to Theatre Through Film	3
Hours		15

### 2nd Year

#### Fall Semester

EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDPI:100	Orientation to Early Childhood Specialist	0
EDIS:225	Introduction to Exceptionalities	3
MATH:140	Fundamentals of Mathematics for Primary Educators	3
EDCI:240	Foundations of Literacy	3
HIST:200	Empires of the Ancient World	3
Hours		18

#### Spring Semester

EDCI:241	Word Study, Phonics & Spelling	3
EDCI:308	Instructional Design and Assessment	6
HIST:210 or HIST:221	Humanities in the Western Tradition from Ancient Times to 1500 or Humanities in the World since 1300	3
EDPI:215	The Child, the Family, and the School	3
MATH:240	Mathematical Foundations for Early Childhood Educators	3
Hours		18

### 3rd Year

#### Fall Semester

EDPI:325	Early Childhood Inclusive Practicum	3
EDPI:330	Building Understanding in Early Childhood Settings	3
EDPI:352	Teaching Mathematics in Inclusive Primary Settings	3
EDIS:448	Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications	3
EDCI:223	Urban Youth Mentoring	3

EDCI:286	Teaching Multiple Texts	3
	Hours	18
<b>Spring Semester</b>		
EDIS:453	Special Education Programming: Moderate/Intensive I	3
EDIS:463	Assessment in Special Education	3
EDPI:338	Social Studies for Primary Teachers	3
EDPI:333	Science for Primary Teachers	3
EDPI:319	Integrated Expressive Arts in Primary Grades	3
EDCI:445	Assessment and Instruction in Literacy	3
	Hours	18
<b>4th Year</b>		
<b>Fall Semester</b>		
EDIS:467	Management Strategies in Special Education	3
EDIS:462	Collaboration with Families and Professionals	3
EDIS:450	Special Education Programming for Primary Teachers	3
EDPI:340	Developmental Writing and Digital Literacies in Inclusive Early	3
EDPI:454	Inquiry Learning in Primary Inclusive Settings	3
	Hours	15
<b>Spring Semester</b>		
EDIS:470	Clinical Practicum in Special Education	3
EDPI:499	Student Teaching in Inclusive Early Childhood Settings	9
	Hours	12
	Total Hours	130-131

<sup>1</sup> Appropriate Placement by advisor; SEL or Basic Stats is prerequisite for MATH:140

## Mathematics

### BS/MS Program in Applied Mathematics

This is an accelerated five-year BS/MS program. By completing this program successfully, a student will receive their baccalaureate degree after four years and their Master's degree after five years. During the third year of the baccalaureate degree, a student will formally apply to the program through the Graduate School (<https://www.uakron.edu/gradsch/>). Upon acceptance, the student will be cleared to complete the remaining electives of the bachelor's degree and 30 credits of graduate work for the master's degree in the last two years. Up to 9 credits of approved coursework will count towards both the baccalaureate and the Master's degrees. A student will be eligible for a graduate assistantship only in the last year and must be registered for at least nine credits in each of those semesters.

### Cooperative Education Program: Mathematics or Applied Mathematics

The work-study schedule for a student participating in the Cooperative Education Program is as follows:

	Fall	Spring	Summer
School	School	School	Vacation/School
School	School	School	Vacation/School/Work
School	Work	Work	School
Work	School	School	Work
School	School	School	

## Admission

Arrangements for student entry into the program are on an individual basis, and must be initiated by the student during the second year of undergraduate study. The Cooperative Education Program is an optional program available only to all full-time mathematics or applied mathematics students at The University of Akron who have satisfactorily met the following requirements:

- Sixty credits with a grade-point average of at least 2.00 out of a possible 4.00 in the program curriculum and be on schedule in the curriculum
- Acceptance by a cooperative education coordinator or director following interviews
- A transfer student must complete 16 credits of academic work at The University of Akron with a grade-point average of at least 2.00 out of a possible 4.00 and be on schedule in the program curriculum.

A student who desires to participate in the program will fill out a Personal Data form and submit it to the department chair. The student will then meet with a member of the cooperative education staff to discuss the availability of prospective employers. During this interview, the student will be asked to sign a Cooperative Educational Agreement and a grade release form which will become effective upon employment. Employment must be coordinated or have approval of the department and the cooperative education director. The University does not guarantee employment for the student. The student will be expected to remain with the employer for all cooperative work periods in order to provide a progression of experience and responsibility.

## Registration

While no academic credits are assigned, each student must register for BCAS:301 Cooperative Education in the same manner that a student registers for any other University course. See department adviser before enrolling for this course.

A cooperative program fee for each work period is charged. Upon completion of a work period, a statement will appear on each student's official transcript listing the course number, title and name of the employer. In the place of a grade "credit" or "no credit" will be given, depending upon the student's satisfactory or unsatisfactory completion of the following:

- Work performance as evaluated by the employer
- Written work report as approved by department chair and cooperative education staff
- Cooperative Work Period Summary form

Usually, work progresses satisfactorily on the job and a grade of "credit" is assigned at the end of the semester. If all the above conditions are not met, a grade of "no credit" will be submitted.

- Applied Mathematics, BS (p. 227)
- Applied Mathematics, Minor (p. 228)

- Mathematics, Minor (p. 228)
- Technical Mathematics, Certificate (p. 229)

## Mathematics (MATH)

**MATH:135 Mathematics for Everyday Life (3 Credits)**

Prerequisites: DEVP 52, DEVP 57, or DEVP 84 with a grade of C- or better or placement test. Contemporary applications of mathematics for the non-science major to develop skills in logical thinking and reading technical material. (Formerly 3450:135)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:140 Fundamentals of Mathematics for Primary Educators (3 Credits)**

Prerequisite: placement test or MATH 152 with a grade of C- or better or STAT 250 with a grade of C- or better or STAT 260 with a grade of C- or better. Corequisite: EDFN 200. A problem-solving and inquiry-based approach to number systems; bases; operations, properties, relationships, algorithms of Real Numbers; patterns and algebra. (Formerly 3450:140)

**MATH:145 Algebra for Calculus (4 Credits)**

Prerequisite: DEVP 85 with a grade of C- or better or MATH 152 with a grade of C- or placement test. Real numbers, equations and inequalities, linear and quadratic functions. Exponential and logarithmic functions. Systems of equations, matrices, determinants. Permutations and combinations. (Formerly 3450:145)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:149 Precalculus Mathematics (4 Credits)**

Prerequisite: MATH 145 with a grade of C- or better or MATH 153 with a grade of C- or better or placement test. Functions, polynomial functions, complex numbers, exponential and logarithmic functions, systems of equations, trigonometric functions, mathematical inductions, sequences, and binomial theorem. (Formerly 3450:149)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:151 Technical Mathematics I (2 Credits)**

Prerequisite: placement test, DEVP 52, DEVP 54, DEVP 57, or DEVP 84 with a grade of C or better. Fundamental concepts and operations, functions, graphs, factoring and algebraic fractions, and quadratic equations. (Formerly 2030:151)

**MATH:152 Technical Mathematics II (2 Credits)**

Prerequisite: MATH 151 with a grade of C- or better or placement test. Variation, equations of lines, Cramer's rule, right triangle trigonometry, oblique triangles, radian measure, and complex numbers. (Formerly 2030:152)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:153 Technical Mathematics III (2 Credits)**

Prerequisite: MATH 152 with a grade of C- or better or placement test. Factoring, algebraic fractions, exponents and radicals, equations with radicals, equations in quadratic form, functions, their properties and graphs, exponential and logarithmic functions. (Formerly 2030:153)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:154 Technical Mathematics IV (3 Credits)**

Prerequisite: MATH 153 with a grade of C- or better or placement test. Functions and their graphs, polynomial and rational functions, polynomial equations, graphs of trigonometric functions, trigonometric identities and equations, analytic geometry, complex numbers in polar form. (Formerly 2030:154)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:161 Mathematics for Modern Technology (4 Credits)**

Prerequisite: Placement test or completion of DEVP 52, DEVP 54, DEVP 57, or DEVP 84 with a grade of C or better. Lines, linear regression, sets, counting, basic probability, basic statistics, binomial and normal distributions, mathematics of finance, symbolic logic, arguments, logic circuits. (Formerly 2030:161)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:208 Introduction to Discrete Mathematics (4 Credits)**

Prerequisite: Completion of MATH 145 or MATH 149 with a grade of C- or better or placement. A foundation course in discrete mathematics with applications. Topics include sets, number systems, Boolean Algebra, logic, relations, functions, recursion, matrices, induction, graphs, and trees. (Formerly 3450:208)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:209 Discrete Mathematics for Educators (4 Credits)**

Prerequisite: Completion of MATH 140 with a grade of C- or better or placement. Corequisite: MATH 231. Introduction to discrete mathematics topics for middle school instruction: sets, counting, probability, recurrence relations, graph theory, logic and elementary proof techniques. (Formerly 3450:209)

**MATH:210 Calculus with Business Applications (3 Credits)**

Prerequisite: Placement test or MATH 145 with a grade of C- or better or MATH 153 with a grade of C- or better. Review of functions, derivatives of functions, extrema and concavity, optimization, logarithmic and exponential functions, extrema for multivariate functions. Graphing calculator required. For business or economics majors only. (Formerly 3450:210)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:215 Concepts of Calculus (4 Credits)**

Prerequisite: Completion of MATH 145 or MATH 149 with a grade of C- or better or placement. Functions; limits and continuity; differentiation and applications of differentiation; logarithmic and exponential functions; integration and applications of integration; partial differentiation. (Formerly 3450:215)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:221 Analytic Geometry-Calculus I (4 Credits)**

Prerequisite: MATH 154 with a grade of C- or better or MATH 255 with a grade of C- or better or MATH 149 with a grade of C- or better or placement test. Limits; continuity; rates of change; derivatives and applications algebraic, trigonometric, transcendental functions; curve sketching, antiderivatives and integration, areas. (Formerly 3450:221)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic



**MATH:222 Analytic Geometry-Calculus II (4 Credits)**

Prerequisite: MATH 221 with a grade of C- or better or MATH 356 with a grade of C- or better. Methods and applications of integration; sequences, series and power series; Taylor polynomials and Taylor series; parametric and polar coordinates. (Formerly 3450:222)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:223 Analytic Geometry-Calculus III (4 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better. Vector algebra, cylindrical, spherical coordinates, vector-valued functions, curvature; functions of several variables, limit, continuity, partial derivatives, differentials, directional derivatives, maxima and minima, multiple integrals, Divergence Theorem. (Formerly 3450:223)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:231 Modeling with Algebraic and Transcendental Functions (4 Credits)**

Prerequisites: Completion of MATH 140 with a grade of C- or better or placement test or permission. Modeling and regression with algebraic, exponential, logarithmic, and trigonometric functions; systems of equations and matrices. These topics will be enhanced by the use of CAS. (Formerly 3450:231)

**MATH:240 Mathematical Foundations for Early Childhood Educators (3 Credits)**

Prerequisite: Completion of MATH 140 with a grade of C- or better. A problem-solving and inquiry-based approach to functions and algebra, coordinate and Euclidean geometry, and elementary data analysis. (Formerly 3450:240)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:255 Technical Calculus I (3 Credits)**

Prerequisite: MATH 154 with a grade of C- or better or placement test. The derivative, applications of the derivative, derivatives of the trigonometric, logarithmic and exponential functions. Integration by antidifferentiation. (Formerly 2030:255)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:260 Advanced Trigonometry (2 Credits)**

Prerequisite: MATH 153 or equivalent with a grade of C- or better, or placement test. Horizontal circular curves, vertical curves, and spherical triangles. (Formerly 2030:260)

**MATH:261 Applied Finite Mathematics (3 Credits)**

Prerequisite: MATH 153 with a grade of C- or better, or placement test. Number systems, integer rings, finite fields, number theory algorithms, prime numbers and primality tests, factoring, and random number. (Formerly 2030:216)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:289 Selected Topics in Mathematics (1-3 Credits)**

Prerequisite: Permission. Selected topics of interest in mathematics. (Formerly 3450:289)

**MATH:290 Special Topics: Associate Studies Mathematics (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission. Selected topics on subject areas of interest in associate studies. (Formerly 2030:290)

**MATH:307 Fundamentals of Advanced Mathematics (3 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better. Logic, solving problems, and doing proofs in mathematics. Sets, extended set operations, and indexed family sets, induction. Binary relations. Functions, cardinality. Introductory concepts of algebra and analysis. (Formerly 3450:307)

**MATH:312 Linear Algebra (3 Credits)**

Prerequisite: Completion of MATH 223 with a grade of C- or better. Study of vector spaces, linear transformations, matrices, determinants, inner products, the eigenvalue problem, quadratic forms and canonical forms. (Formerly 3450:312)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:331 Modeling with Calculus (4 Credits)**

Prerequisite: Completion of MATH 231 with a grade of C- or better. Introduction to limits, continuity, differentiation with applications, integration with applications, sequences and series. These topics will be enhanced by the use of CAS. (Formerly 3450:331)

**MATH:335 Introduction to Ordinary Differential Equations (3 Credits)**

Prerequisite: Completion of MATH 223 with a grade of C- or better or permission of instructor. Basic techniques for solving ODEs and systems of ODEs. Analysis of models involving differential equations of first order and simple equations of second order. (Formerly 3450:335)

**Ohio Transfer 36:** Yes

**MATH:341 Geometry and Measurement (3 Credits)**

Prerequisites: Completion of MATH 209 with a grade of C- or better, or MATH 307 with a grade of C- or better and be admitted to the College of Education. Basic Constructions, Polygons, Similarity, Pythagorean Theorem, Circles, Congruence, Perimeters and Areas of Plane Figures, Surface and Volume of Solids, Rigid Motions and Symmetry, Coordinate geometry. (Formerly 3450:341)

**MATH:345 Technical Data Analysis (2 Credits)**

Prerequisite: [MATH 154 or MATH 261] with a grade of C- or better. Data summarization including graphic representation, numerical measures, introduction to probability, confidence intervals and hypothesis testing. (Formerly 2030:345)

**MATH:356 Technical Calculus II (3 Credits)**

Prerequisite: MATH 255 or equivalent with a grade of C- or better, or placement test. Methods and applications of integration, first and second order differential equations and applications, series expansion, Laplace transform, partial derivatives, and double integrals. (Formerly 2030:356)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:360 Advanced Mathematics for Surveyors (2 Credits)**

Pre/Corequisite: MATH 255 or MATH 221. This course is designed to prepare surveying majors for the math portion of their professional exam. Topics include matrices, introduction to series, partial derivatives, least squares adjustments, topics in astronomy, and coordinate systems. (Formerly 2030:480)

**MATH:361 Applied Cryptography (3 Credits)**

Prerequisite: A grade of C or better in MATH 261. Symmetric cryptography, modular arithmetic, stream and block ciphers, random numbers, Advanced Encryption Standard, public-key cryptography, key exchange, digital signatures, hash functions, message authentication. (Formerly 2030:361)

**MATH:401 History of Mathematics (3 Credits)**

Prerequisite: Completion of MATH 307 with a grade of C- or better. Origin and development of mathematical ideas. (Formerly 3450:401)

**MATH:410 Advanced Linear Algebra (3 Credits)**

Prerequisite: Completion of MATH 312 with a grade of C- or better. Study of vector spaces, linear transformation, canonical and quadratic forms, inner product spaces. (Formerly 3450:410)

**MATH:411 Abstract Algebra I (3 Credits)**

Prerequisite: Completion of MATH 307 with a grade of C- or better or permission of instructor. Study of groups, rings, fields, integral domains. (Formerly 3450:411)

**MATH:412 Abstract Algebra II (3 Credits)**

Prerequisite: Completion of MATH 411 with a grade of C- or better or permission of instructor. Study of groups, rings, fields, integral domains, vector spaces, field extensions, Galois theory. (Formerly 3450:412)

**MATH:413 Theory of Numbers (3 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better or permission. Euclidean algorithm, unique factorization theorem, congruences, primitive roots, indices, quadratic residues, number-theoretic functions, Gaussian integers and continued fractions. (Formerly 3450:413)

**MATH:415 Combinatorics & Graph Theory (3 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better or permission. Introduction to basic ideas and techniques of mathematical counting; properties of structure of systems. (Formerly 3450:415)

**MATH:420 Mathematical Technology and Communication (3 Credits)**

Prerequisites: Completion of MATH 222 and MATH 312 with grades of C- or better, or permission. Graphical, numerical, and algebraic computation with applications using a variety of mathematical hardware and software: symbolic manipulators, dynamic geometry software, programs, scripts and web-browsers. (Formerly 3450:420)

**MATH:421 Advanced Calculus I (3 Credits)**

Sequential. Prerequisite: Completion of MATH 223 with a grade of C- or better; MATH 307 is highly recommended. Real number system, sequences, series, set theory, continuity, differentiation, integration, partial derivatives, multiple integration, maxima and minima, convergence and uniform convergence, power series, improper integrals, transformations, line and surface integrals. (Formerly 3450:421)

**MATH:422 Advanced Calculus II (3 Credits)**

Sequential. Prerequisite: Completion of MATH 421 with a grade of C- or better or permission of instructor. Real number system, sequences, series, set theory, continuity, differentiation, integration, partial derivatives, multiple integration, maxima and minima, convergence and uniform convergence, power series, improper integrals, transformations, line and surface integrals. (Formerly 3450:422)

**MATH:425 Complex Variables (3 Credits)**

Prerequisite: Completion of MATH 223 with a grade of C- or better. Complex variables; elementary functions, differentiation and analytic functions; integration and Cauchy's theorem; power series and Laurent series; residue theorem; applications such as conformal mappings, inversion of integral transform. (Formerly 3450:425)

**MATH:427 Applied Numerical Methods I (3 Credits)**

Prerequisites: Completion of MATH 222 and CPSC 209 with grades of C- or better or permission. Numerical methods in polynomial interpolation, rootfinding, numerical integration, and numerical linear algebra. (Formerly 3450:427)

**MATH:428 Applied Numerical Methods II (3 Credits)**

Prerequisites: Completion of MATH 335 and MATH 427 with grades of C- or better or permission. Numerical methods in the solution of ordinary and partial differential equations. Numerical differentiation, Runge-Kutta methods, and iterative methods for ODEs, finite differences for PDEs. (Formerly 3450:428)

**MATH:430 Numerical Solutions for Partial Differential Equations (3 Credits)**

Prerequisite: Completion of MATH 428 with a grade of C- or better or equivalent. For advanced undergraduate and graduate students. The study of finite difference and finite element methods for partial differential equations consistency, stability, convergence and computer implementation. (Formerly 3450:430)

**MATH:432 Partial Differential Equations (3 Credits)**

Prerequisite: Completion of MATH 335 with a grade of C- or better. The classical initial value and boundary value problems of mathematical physics developed and solved using Fourier series and integral transforms. (Formerly 3450:432)

**MATH:435 Systems of Ordinary Differential Equations (3 Credits)**

Prerequisites: Completion of MATH 335 and [MATH 312 or MATH 428 with grades of C- or better] or permission. Analysis, solution of systems of equations, linear, nonlinear. Topics: stability theory, perturbation methods, asymptotic methods, applications from physical, social sciences. (Formerly 3450:435)

**MATH:436 Mathematical Models (3 Credits)**

Prerequisite: Completion of MATH 335 with a grade of C- or better, and a six-hour sequence in an approved applied area, or permission. Formulation and analysis of mathematical models in social and physical sciences. Analysis of deterministic and stochastic models. Topics may include stochastic processes, linear programming, graph theory, theory of measurement. (Formerly 3450:436)

**MATH:438 Advanced Engineering Mathematics I (3 Credits)**

Prerequisites: Completion of MATH 335 and MATH 312 with grades of C- or better or permission. Matrices, eigenvalue problems, systems of ODEs, vector analysis, complex variables. (Formerly 3450:438)

**MATH:439 Advanced Engineering Mathematics II (3 Credits)**

Prerequisites: Completion of MATH 335 and MATH 312 with grades of C- or better or permission. Special functions, Fourier series and transforms, PDEs. (Formerly 3450:439)

**MATH:441 Concepts in Geometry (4 Credits)**

Prerequisite: [MATH 208 or MATH 209 or MATH 307] with a grade of C- or better, or permission of instructor. This course includes the study of axiomatic, modern, and transformational geometry. In particular: the foundations of geometry (points, lines, segments, angles, polygons, and circles), Euclidean and non-Euclidean geometry. (Formerly 3450:441)

**MATH:445 Introduction to Topology (3 Credits)**

Prerequisite: Completion of MATH 307 with a grade of C- or better or permission of instructor. Introduction to topological spaces and topologies, mappings, cardinality, homeomorphisms, connected spaces, metric spaces. (Formerly 3450:445)

**MATH:461 Applied Cryptanalysis (3 Credits)**

Prerequisite: MATH 361 with a grade of C or better. Cryptanalysis concepts; cryptanalysis of symmetric and public key cryptosystems, key exchange systems, and digital signatures; hash function collision resistance; cryptanalysis with quantum computer. (Formerly 2030:461)

**MATH:489 Topics in Mathematics (1-4 Credits)**

(May be repeated for a total of 12 credits) Prerequisite: Permission of instructor. Selected topics in mathematics and applied mathematics at an advanced level. (Formerly 3450:489)

**MATH:491 Workshop in Mathematics (1-4 Credits)**

(May be repeated) Group studies of special topics in mathematics and applied mathematics. May not be used to meet undergraduate or graduate major requirements. May be used for elective credit. (Formerly 3450:491)

**MATH:497 Individual Reading: Mathematics (1-2 Credits)**

Prerequisites: senior standing and permission. Mathematics or applied mathematics majors only. Directed studies designed as an introduction to research problems, under guidance of selected faculty member. (Formerly 3450:497)

**MATH:498 Senior Honors Project: Mathematics (1-3 Credits)**

Prerequisite: Senior standing or higher in the Honors program and permission of instructor. Directed study for senior student in the Honors Program. An introduction to research problems in mathematics and applied mathematics under the guidance of selected faculty. May be repeated for up to six credits. (Formerly 3450:498)

## Applied Mathematics, BS Bachelor of Science in Applied Mathematics (345001BS)

More on the Applied Mathematics major (<https://www.uakron.edu/math/academics/undergraduate/applied-mathematics-program.dot>)

### Applied Mathematics Fundamentals

- Core courses provide in-depth understanding of one or more areas in the mathematical sciences.
- Degree program can be tailored to an area of specialization, such as:
  - engineering
  - physics
  - chemistry
  - computer science
  - social science
  - economics
  - business

The following information has official approval of **The Department of Mathematics** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Applied Mathematics Core	44
	Applied Mathematics Electives	15
	Additional Credits for Graduation *	13
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.0 GPA in all MATH courses is required for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours		34

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Foreign Language</i>		<b>14</b>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	
	202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

- Upper-level (300/400) courses both in and outside of the student's major;
- or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Applied Mathematics Core

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:307	Fundamentals of Advanced Mathematics	3
MATH:312	Linear Algebra	3
MATH:335	Introduction to Ordinary Differential Equations	3
MATH:421	Advanced Calculus I	3
MATH:422	Advanced Calculus II	3
or MATH:425	Complex Variables	
MATH:427	Applied Numerical Methods I	3
MATH:428	Applied Numerical Methods II	3
MATH:436	Mathematical Models	3
CPSC:209	Computer Science I <sup>1</sup>	4
STAT:461	Applied Statistics	4
Total Hours		44

<sup>1</sup> Counts as a College of Arts & Sciences upper level course.

## Applied Mathematics Electives

Code	Title	Hours
<b>Select 15 credits at the 300/400 level of which at least 6 credits are from some approved applied area such as Mathematics (MATH), Statistics (STAT), Computer Science (CPSC), Chemistry, Physics, Economics, Engineering, etc.</b>		<b>15</b>
Total Hours		15

**Note:**

- A minimum of 14 credits of MATH, CPSC, & STAT must be taken at The University of Akron.
- The courses MATH:135 Mathematics for Everyday Life, MATH:140 Fundamentals of Mathematics for Primary Educators, MATH:145 Algebra for Calculus, MATH:149 Precalculus Mathematics; STAT:250 Statistics for Everyday Life, STAT:260 Basic Statistics-STAT:262 Introductory Statistics II, and most CPSC courses do not meet these degree requirements.
- Please see the Graduate Bulletin for BS/MS program information (<https://bulletin.uakron.edu/graduate/colleges-programs/arts-sciences/math/applied-mathematics-accelerated-bs-ms/>).

## Applied Mathematics, Minor Minor in Applied Mathematics (345001M)

**Program Contact**

*Dr. Linda Marie Saliga*  
Chair, Department of Mathematics

*Professor of Mathematics*  
330-972-8002  
[saliga@uakron.edu](mailto:saliga@uakron.edu)

The following information has official approval of the **Department of Mathematics** and the **Buchtel College of Arts & Sciences** but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Applied Mathematics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		15
Electives		9
Total Hours		24

## Required Courses

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:312	Linear Algebra	3
or MATH:438	Advanced Engineering Mathematics I	
Total Hours		15

## Electives

Code	Title	Hours
<b>Select 9 credits of approved 300/400 level mathematical sciences electives <sup>1</sup></b>		<b>9</b>
Total Hours		9

<sup>1</sup> At least six credits must be in MATH courses.

## Mathematics, Minor Minor in Mathematics (345000M)

**Program Contact**

*Dr. Linda Marie Saliga*  
Chair, Department of Mathematics  
*Professor of Mathematics*  
330-972-8002  
[saliga@uakron.edu](mailto:saliga@uakron.edu)

The following information has official approval of the **Department of Mathematics** and the **Buchtel College of Arts & Sciences** but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Minor in Mathematics” and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student’s record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		15
Electives		9
Total Hours		24

## Required Courses

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:312	Linear Algebra	3
or MATH:438	Advanced Engineering Mathematics I	
Total Hours		15

## Electives

Code	Title	Hours
Select 9 credits of approved 300/400 level mathematical sciences electives <sup>1</sup>		9
Total Hours		9

<sup>1</sup> At least six credits must be in MATH courses.

## Technical Mathematics, Certificate Certificate in Technical Mathematics (203001C)

This certificate is aimed at developing technical mathematics knowledge and the ability to apply this knowledge in an industrial setting.

### Program Contact

Dr. Katie Cerrone  
Department of Mathematics  
Professor of Technical Mathematics  
330-972-8809  
kc24@uakron.edu

The following information has official approval of **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Certificate in Technical Mathematics” and must be completed with a minimum grade point average of 2.5 overall for the certificate to be noted on the student’s record. The granting of this certificate does not require the completion of a degree. However, coursework can be applied to an A.A, A.S., or A.A.S. degree or to B.S. degrees in Engineering Technology or CIS-Cybersecurity.

## Summary

Code	Title	Hours
Core Courses		8-9
Electives		3-2
Total Hours		11

## Core Courses

Code	Title	Hours
<b>Complete 8-9 credits from the following:</b>		<b>8-9</b>
MATH:154	Technical Mathematics IV	
MATH:261	Applied Finite Mathematics	
MATH:255	Technical Calculus I	
MATH:356	Technical Calculus II	
MATH:361	Applied Cryptography	
MATH:461	Applied Cryptanalysis	
MATH:360	Advanced Mathematics for Surveyors	
Total Hours		8-9

## Electives

Code	Title	Hours
<b>Complete 2-3 credit hours of the following:<sup>1</sup></b>		<b>3-2</b>
MATH:261	Applied Finite Mathematics	
MATH:260	Advanced Trigonometry	
MATH:345	Technical Data Analysis	
MATH:361	Applied Cryptography	
MATH:461	Applied Cryptanalysis	
MATH:360	Advanced Mathematics for Surveyors	
MATH:290	Special Topics: Associate Studies Mathematics	
MATH xxx	200/300/400 Level mathematics courses approved by the Technical Mathematics faculty of the Dept. of Applied General and Technical Studies	
Total Hours		3-2

<sup>1</sup> If only 8 credits are taken from the core course list, then 3 credits must be taken from the electives in order to meet the minimum 11 credit requirement for the certificate.

## Modern Languages

The Department of Modern Languages is committed to preparing all University of Akron students to succeed in the global economy and to become productive and engaged global citizens. Our students achieve linguistic competencies and multicultural literacies, develop critical-thinking and problem-solving skills and connect with diverse local, national, and international communities.

- Spanish
  - The Spanish Major is designed for those students who are interested in developing their skills in the Spanish language and in gaining a broader perspective on and a deeper understanding of Spanish-speaking countries in Europe and Latin America. Spanish is the second-most commonly spoken language after English within the United States, and in today’s economy, getting a good job within any customer service-related industry is greatly enhanced by the ability to speak Spanish.

- Advanced Spanish for Health Professions and First Responders, Certificate (p. 237)
- Arabic, Minor (p. 237)
- Beginning Medical Spanish, Certificate (p. 238)
- French, Minor (p. 238)
- Spanish, BA (p. 239)
- Spanish, Minor (p. 240)

## Modern Languages (MODL)

### MODL:101 Beginning Modern Language I (4 Credits)

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3500:101)

### MODL:102 Beginning Modern Language II (4 Credits)

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3500:102)

### MODL:201 Intermediate Modern Language I (3 Credits)

Sequential. Prerequisite: MODL 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3500:201)

### MODL:202 Intermediate Modern Language II (3 Credits)

Sequential. Prerequisite: MODL 201 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3500:202)

### MODL:422 Modern Languages: Special Topics in Advanced Language Skills, or Culture, or Literature (1-4 Credits)

Prerequisite: Modern Languages MODL 202 or equivalent. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3500:422)

### MODL:490 Workshop in Modern Languages (1-4 Credits)

Prerequisite: Permission of instructor. (May be repeated for a total of 8 credits) Group studies of special topics in modern languages. (Formerly 3500:490)

### MODL:497 Individual Readings in Modern Languages (1-3 Credits)

Prerequisites: MODL 202 and permission of department chair. (Formerly 3500:497)

### MODL:498 Senior Honors Project (1-3 Credits)

(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission. Open only to language major enrolled in Honors Program. Independent study leading to completion of senior honors thesis or other original work. (Formerly 3500:498)

### MODL:522 Modern Languages: Special Topics in Advanced Language Skills or Culture, or Literature (1-4 Credits)

See department for course description. (Formerly 3500:522)

### MODL:590 Workshop in Modern Language (1-4 Credits)

Prerequisite: graduate status or permission of department. (May be repeated for a maximum of eight credits) Group studies of special topics in modern languages. (Formerly 3500:590)

### MODL:597 Individual Reading in Modern Languages (1-4 Credits)

Prerequisite: Graduate status and permission of the instructor and department chair. Individual study under the guidance of professor who directs and coordinates student's reading and research. The general designation of MODL is used for languages that do not have a specific department number (i.e., Arabic, Chinese, Portuguese, etc.). May be repeated with departmental permission. (Formerly 3500:597)

## Arabic (ARAB)

### ARAB:101 Beginning Arabic I (4 Credits)

Sequential. Acquisition of basic speaking, listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3501:101)

### ARAB:102 Beginning Arabic II (4 Credits)

Sequential. Prerequisite: ARAB 101 or equivalent. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3501:102)

### ARAB:201 Intermediate Arabic I (4 Credits)

Sequential. Prerequisite: ARAB 102 or equivalent. Continuing acquisition of competence in speaking, listening comprehension, reading and writing through use of culturally authentic materials, with emphasis on developing accuracy and self-expression. (Conducted in Arabic). (Formerly 3501:201)

### ARAB:202 Intermediate Arabic II (4 Credits)

Sequential. Prerequisite: ARAB 201 or equivalent. Continuing acquisition of competence in speaking, listening comprehension, reading and writing through use of culturally authentic materials, with emphasis on developing accuracy and self-expression. (Conducted in Arabic). (Formerly 3501:202)

### ARAB:210 Arabic Culture through Film (3 Credits)

Prerequisites: 32 credit hours including English Composition I and II [ENGL 111 and ENGL 112] or equivalent. Exploration of Arabic culture through viewing of films subtitled in English. Readings and discussions in English. Does not count toward minor in Arabic. (Formerly 3501:210)

**Gen Ed:** - Humanities

### ARAB:301 Composition and Conversation (4 Credits)

Prerequisite: ARAB 202 or equivalent. Further development of language skills acquired at the intermediate level: Writing, Speaking, Listening Comprehension and Reading. (Conducted in Arabic). (Formerly 3501:301)

### ARAB:302 Arabic Media (4 Credits)

Prerequisite: ARAB 202 or equivalent. Further development of practical language skills with a focus on Arabic media. The course also will enrich students understanding of Arabic culture. (Conducted in Arabic). (Formerly 3501:302)

### ARAB:303 Introduction to Modern Arabic Literature (4 Credits)

Prerequisite: ARAB 202 or equivalent. Enhancement of students' communicative skills with emphasis on development of the ability to read, appreciate and discuss Modern Arabic Literature. (Conducted in Arabic). (Formerly 3501:303)

### ARAB:304 Cultural Readings in Arabic (4 Credits)

Prerequisite: ARAB 202 or equivalent. Enhancement of communicative skills in Arabic with a focus on development of the ability to read, appreciate and discuss Arabic writing. (Conducted in Arabic). (Formerly 3501:304)

**ARAB:311 Arabic Cultural Experience Abroad (1-8 Credits)**

Prerequisite: Permission of Department Chair. Residence and study abroad in an Arabic-speaking country. May be repeated once with different content. Only 8 credits allowable for minor in Arabic. (Formerly 3501:311)

**ARAB:422 Special Topics in Arabic (1-4 Credits)**

Prerequisite: Two of the group of [ARAB 301, ARAB 302, ARAB 303, ARAB 304] or permission of instructor. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Conducted in Arabic.) (May be repeated once with different topic for a maximum total of 8 credits.) (Formerly 3501:422)

**ARAB:497 Individual Reading in Arabic (1-4 Credits)**

Prerequisite: ARAB 202 and permission of the instructor and department chair. Individual study under the guidance of professor. May be repeated once with departmental permission for a total of 8 credits. (Formerly 3501:497)

## Chinese (CHIN)

**CHIN:101 Beginning Chinese I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression in everyday situations through culturally authentic media and texts. (Formerly 3502:101)

**CHIN:102 Beginning Chinese II (4 Credits)**

Sequential. Prerequisite: CHIN 101 or equivalent. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression in everyday situations through culturally authentic media and texts. (Formerly 3502:102)

**CHIN:201 Intermediate Chinese I (4 Credits)**

Sequential. Prerequisite: CHIN 102 or equivalent. Continuing acquisition of speaking, listening, comprehension, reading, and writing competency through use of culturally authentic materials; emphasis on developing accuracy of self-expression. (Conducted in Chinese.) (Formerly 3502:201)

**CHIN:202 Intermediate Chinese II (4 Credits)**

Sequential. Prerequisite: CHIN 201 or equivalent. Continuing acquisition of speaking, listening, comprehension, reading, and writing competency through use of culturally authentic materials; emphasis on developing accuracy of self-expression. (Conducted in Chinese.) (Formerly 3502:202)

**CHIN:210 Chinese Culture Through Film (3 Credits)**

Prerequisites: 32 credit hours including ENGL 111 and ENGL 112 or equivalent. Exploration of Chinese culture through viewing of films subtitled in English. Readings and discussions in English. Does not count toward minor in Chinese. (Formerly 3502:210)

**Gen Ed:** - Humanities

**CHIN:301 Chinese Conversation (4 Credits)**

Prerequisite: CHIN 202 or equivalent. Continuing development of oral expression, listening comprehension and conversational ability, with emphasis on expressing and supporting opinions. (Conducted in Chinese.) (Formerly 3502:301)

**CHIN:302 Chinese Composition (4 Credits)**

Prerequisite: CHIN 202 or equivalent. Development of writing skills through intensive practice and study of written expression in Chinese. Emphasis on composing extensive descriptive narrations and personal letters. (Conducted in Chinese.) (Formerly 3502:302)

**CHIN:303 Chinese Conversation Through Media (4 Credits)**

Sequential. Prerequisite: CHIN 202 or equivalent. Development of oral expression and listening comprehension, with emphasis on discussing current topics and expressing and supporting opinions based on media clips. (Conducted in Chinese.) (Formerly 3502:303)

**CHIN:304 Chinese Reading and Writing (4 Credits)**

Prerequisite: CHIN 202 or equivalent. Continuing development of reading ability through study of Chinese publications, and writing summaries of the texts. (Conducted in Chinese.) (Formerly 3502:304)

**CHIN:311 Chinese Cultural Experience Abroad (1-8 Credits)**

Prerequisite: Residence and study abroad in a Chinese-speaking country. May be repeated once with different content. Only 8 credits allowable for minor in Chinese. (Formerly 3502:311)

**CHIN:422 Special Topics in Language Skills, or Culture or Literature (1-4 Credits)**

Prerequisite: Two of the group [CHIN 301, CHIN 302, CHIN 303, CHIN 304]. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (May be repeated once under different topic for a total of 8 credits.) (Formerly 3502:422)

**CHIN:497 Individual Reading in Chinese (1-4 Credits)**

Prerequisite: CHIN 202. Individual study under guidance of professor who directs and coordinates student's reading and research. May be repeated once for a total of 8 credits. (Formerly 3502:497)

## Latin (LATN)

**LATN:101 Beginning Latin I (4 Credits)**

Sequential. Reading, writing and translation; oral and written drill; analysis of grammatical structure and English vocabulary building. (Formerly 3510:101)

**LATN:102 Beginning Latin II (4 Credits)**

Sequential. Prerequisite: LATN 101 or equivalent. Reading, writing and translation; oral and written drill; analysis of grammatical structure and English vocabulary building. (Formerly 3510:102)

**LATN:190 The Making of English Words from Latin and Greek Elements (3 Credits)**

The influence of Latin and Greek on English vocabulary with some attention to the use of these languages in the scientific and legal fields. No foreign language is necessary. (Formerly 3510:190)

**LATN:201 Intermediate Latin I (3 Credits)**

Prerequisite: LATN 102 or equivalent. A survey of readings of the less difficult authors such as Pliny, Caesar, Plautus, Cicero's Letters or equivalent material. (Formerly 3510:201)

**LATN:202 Intermediate Latin II (3 Credits)**

Prerequisite: LATN 201 or equivalent. A survey of readings of the less difficult authors such as Pliny, Caesar, Plautus, Cicero's Letters or equivalent material. (Formerly 3510:202)

**LATN:303 Advanced Latin I (3 Credits)**

Prerequisites: LATN 202 or equivalent. Satirists, dramatists, philosophical, religious writers, lyric and elegiac poets, medieval writers. (May be repeated for credit with change of subject) (Formerly 3510:303)

**LATN:304 Advanced Latin II (3 Credits)**

Prerequisite: LATN 202 or equivalent. Satirists, dramatists, philosophical, religious writers, lyric and elegiac poets, medieval writers. (May be repeated for credit with change of subject) (Formerly 3510:304)

**LATN:497 Latin Reading & Research (3 Credits)**

Generally Latin epigraphy, prose composition or philology; numismatics or certain other archaeological topics may be offered. (May be repeated for credit with change of subject) (Formerly 3510:497)

**LATN:498 Latin Reading & Research (3 Credits)**

Generally Latin epigraphy, prose composition or philology; numismatics or certain other archaeological topics may be offered. (May be repeated for credit with change of subject) (Formerly 3510:498)

**French (FREN)****FREN:101 Beginning French I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3520:101)

**FREN:102 Beginning French II (4 Credits)**

Sequential. Prerequisite: FREN 101 or placement test. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3520:102)

**FREN:201 Intermediate French I (3 Credits)**

Sequential. Prerequisite: FREN 102 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3520:201)

**FREN:202 Intermediate French II (3 Credits)**

Sequential. Prerequisite: FREN 201 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3520:202)

**FREN:210 French and Francophone Cultures Through Film (3 Credits)**

Prerequisites: Sophomore or higher standing (30 credit hours including ENGL 111 and ENGL 112) or equivalent. Exploration of French and Francophone cultures through viewing of films subtitled in English. Readings and discussions in English. (Formerly 3520:210)

**Gen Ed:** - Humanities; - Global Diversity

**FREN:300 Contemporary French and Francophone Cultures (3 Credits)**

Prerequisite: FREN 202. Introduction to contemporary lives and cultures in France and other Francophone countries as portrayed in recent documents, literary works and films. (Formerly 3520:300)

**FREN:301 French Conversation (3 Credits)**

Sequential. Prerequisite: FREN 202 or placement test. Development of speaking skills beyond the intermediate level. Practice of listening comprehension, correct pronunciation, extended and grammatically sound discourse. May be repeated for a total of six credits. (Formerly 3520:301)

**FREN:302 French Composition (3 Credits)**

Sequential. Prerequisite: FREN 202. Development of writing skills beyond intermediate level. (Formerly 3520:302)

**FREN:303 French Culture & Civilization I (3 Credits)**

Prerequisite: FREN 202 or equivalent. History of France and French cultural heritage from its origins to mid-20th century. (Formerly 3520:303)

**FREN:304 French Culture & Civilization II (3 Credits)**

Prerequisite: FREN 202 or equivalent. Modern history of France. Focus on political and social trends since 1960. (Formerly 3520:304)

**FREN:305 Introduction to French Literature I (3 Credits)**

Prerequisite: FREN 202. Survey of French literature from its origins to present, with lectures, reading and class discussion of representative works. (Formerly 3520:305)

**FREN:306 Introduction to French Literature II (3 Credits)**

Prerequisite: FREN 202. Survey of French literature from its origins to present, with lectures, reading and class discussion of representative works. (Formerly 3520:306)

**FREN:308 Internship in France (1-3 Credits)**

Permission of the French section advisor. (May be taken for a total of six credits. No more than three credits may be applied toward a FREN major.) Student's internship which results in portfolio on career applications of the discipline of French. (Formerly 3520:308)

**FREN:311 Contemporary French Society (3 Credits)**

Prerequisite: FREN 202. A study of contemporary French society, including customs and political and social issues. Conducted in France. Counts toward Culture and Civilization requirement for major. (Formerly 3520:311)

**FREN:312 French/Francophone Cultural Experience Abroad (1-3 Credits)**

Prerequisite: Permission of the French section advisor. May be taken for a total of six credits. No more than three credits may be applied toward a FREN major. Student's residence and independent study/project in French-speaking country which results in demonstrable understanding of the country's culture (Formerly 3520:312)

**FREN:315 French Phonetics (3 Credits)**

Pre/Corequisite: FREN 202 or equivalent. Intensive drill in pronunciation with correction and improvement of student's accent, emphasis on articulation, intonation and rhythm. (Formerly 3520:315)

**FREN:350 Themes in French Literature in Translation (3 Credits)**

Prerequisite: HIST 210 or HIST 221. (May not be taken for credit toward the French major) Readings, discussion of novels and plays relating to selected themes of French literature. Texts and discussion in English. (Formerly 3520:350)

**FREN:351 Translation: French (3 Credits)**

Prerequisite: FREN 202. Study of translation techniques, both French to English and English to French. Emphasis on stylistics and interpretation of idioms. (Formerly 3520:351)

**FREN:352 Translation: Business French (3 Credits)**

Prerequisite: FREN 351 or equivalent. Application of translation techniques with particular stress on business styles, formats, and vocabulary. Especially recommended for students interested in international business. (Formerly 3520:352)

**FREN:402 Advanced French Grammar (3 Credits)**

Prerequisite: FREN 302. Advanced study of normative French grammar with emphasis on syntax, morphology, grammatical structure and phonetic principles. (Formerly 3520:402)

**FREN:403 Advanced French: Written and Oral Communication (3 Credits)**

Prerequisite: [FREN 301 and FREN 302] or permission. Development of writing and speaking skills beyond that achieved in 301 and 302 through intensive practice and grammar review. (Formerly 3520:403)

**FREN:407 French Literature of the Middle Ages & the Renaissance (4 Credits)**

Prerequisite: FREN 305 or FREN 306. Reading and discussion of selected Medieval and Renaissance literary works. Conducted in French. (Formerly 3520:407)



**FREN:413 French Cinema (3 Credits)**

Prerequisites: FREN 301 or FREN 302 or permission from instructor. Study and discussion of various aspects of French culture and civilization as characterized in movies. (Formerly 3520:413)

**FREN:419 19th Century French Literature (4 Credits)**

Prerequisite: FREN 305 or FREN 306. Reading and discussion of selected works pertaining to romantic, realistic and naturalistic movements. Conducted in French. (Formerly 3520:419)

**FREN:422 French: Special Topics in Advanced Language Skills, Culture or Literature (1-4 Credits)**

Prerequisite: FREN 202. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3520:422)

**FREN:427 20th Century French Literature (4 Credits)**

Prerequisite: FREN 305 or FREN 306 or equivalent. Reading and discussion of the most representative works of period. Conducted in French. (Formerly 3520:427)

**FREN:430 Contemporary Quebec (3 Credits)**

Prerequisite: FREN 301 or FREN 302 or permission. Historical, political, sociological and cultural overviews of Québec, offering an in-depth examination of questions of identity through the study of literature and popular culture. (Formerly 3520:430)

**FREN:431 Francophone Literature (3 Credits)**

Prerequisite: FREN 300 or FREN 301 or FREN 302 or permission. The problematics of identity (race, class) in postcolonial context, studied through literary texts by authors from Africa, Caribbean, and Québec. (Formerly 3520:431)

**FREN:460 Selected Themes in French Literature (3 Credits)**

(May be repeated.) Conducted in French. Prerequisites: FREN 305 and FREN 306. Reading and discussion of literary works selected according to an important theme. (Formerly 3520:460)

**FREN:497 Individual Reading in French (1-3 Credits)**

Prerequisite: FREN 202 and permission of department chair. (Formerly 3520:497)

**FREN:498 Individual Reading in French (1-3 Credits)**

Prerequisite: FREN 202 and permission of department chair. (Formerly 3520:498)

## German (GERM)

**GERM:101 Beginning German I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3530:101)

**GERM:102 Beginning German II (4 Credits)**

Sequential. Prerequisite: GERM 101 or equivalent. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3530:102)

**GERM:201 Intermediate German I (3 Credits)**

Sequential. Prerequisite: GERM 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3530:201)

**GERM:202 Intermediate German II (3 Credits)**

Sequential. Prerequisite: GERM 201 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3530:202)

**GERM:301 German Conversation & Composition (3 Credits)**

Prerequisite: GERM 202 or equivalent. Advanced composition using German models, special attention to words and idioms, development of oral expression and conversational ability. (Formerly 3530:301)

**GERM:302 Special Topics in German Conversation & Composition (3 Credits)**

Prerequisite: GERM 202 or equivalent or permission of instructor. May be repeated for credit. Special attention to development of oral expression and conversational ability. (Formerly 3530:302)

**GERM:310 Sex, Violence, & Terror in German Fairy Tales (3 Credits)**

Exploration of historical context of German fairy tales and interpretation plus modern significance of texts according to Jungian archetypal psychology. Readings and discussions in English. (Formerly 3530:310)

**GERM:403 Advanced German Conversation & Composition (3 Credits)**

Prerequisite: GERM 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure. (Formerly 3530:403)

**GERM:404 Advanced German Conversation & Composition (3 Credits)**

Prerequisite: GERM 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure. (Formerly 3530:404)

**GERM:406 German Culture & Civilization (3 Credits)**

Prerequisite: GERM 302 or equivalent. Particular emphasis on customs, traditions, literary trends and artistic tendencies that constitute German's contribution to Western civilization. (Formerly 3530:406)

**GERM:407 German Culture & Civilization (3 Credits)**

Prerequisite: GERM 302 or equivalent. Particular emphasis on customs, traditions, literary trends and artistic tendencies that constitute German's contribution to Western civilization. (Formerly 3530:407)

**GERM:422 German: Special Topics in Advanced Language Skills or Culture or Literature (1-4 Credits)**

Prerequisite: GERM 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3530:422)

**GERM:497 Individual Reading in German (1-3 Credits)**

Prerequisite: GERM 202 and permission of department chair. (Formerly 3530:497)

**GERM:498 Individual Reading in German (1-3 Credits)**

Prerequisite: GERM 202 and permission of department chair. (Formerly 3530:498)

## Italian (ITAL)

**ITAL:101 Beginning Italian I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3550:101)

**ITAL:102 Beginning Italian II (4 Credits)**

Sequential. Prerequisite: ITAL 101. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3550:102)

**ITAL:201 Intermediate Italian I (3 Credits)**

Sequential. Prerequisite: ITAL 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3550:201)

**ITAL:202 Intermediate Italian II (3 Credits)**

Sequential. Prerequisite: ITAL 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3550:202)

**ITAL:301 Italian Composition & Conversation (3 Credits)**

Prerequisite: ITAL 202 or equivalent. Italian composition using Italian models, special attention to words and idioms and development of oral expression and conversational ability. (Formerly 3550:301)

**ITAL:302 Italian Composition & Conversation (3 Credits)**

Prerequisite: ITAL 202 or equivalent. Italian composition using Italian models, special attention to words and idioms and development of oral expression and conversational ability. (Formerly 3550:302)

**ITAL:422 Italian: Special Topics in Advanced Language Skills, or Culture, or Literature (1-4 Credits)**

Prerequisite: ITAL 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3550:422)

**ITAL:497 Individual Reading in Italian (1-3 Credits)**

Prerequisite: ITAL 202 and permission of the department chair. (Formerly 3550:497)

## Japanese (JAPN)

**JAPN:101 Beginning Japanese I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing, and listening comprehension skills. (Formerly 3560:101)

**JAPN:102 Beginning Japanese II (4 Credits)**

Sequential. Prerequisite: JAPN 101 or equivalent. Acquisition of basic reading, speaking, writing, and listening comprehension skills. (Formerly 3560:102)

**JAPN:201 Intermediate Japanese I (3 Credits)**

Sequential. Prerequisite: JAPN 102 or equivalent. Continuing development of reading, writing, speaking, and listening comprehension skills. (Formerly 3560:201)

**JAPN:202 Intermediate Japanese II (3 Credits)**

Sequential. Prerequisite: JAPN 201 or equivalent. Continuing development of reading, writing, speaking, and listening comprehension skills. (Formerly 3560:202)

**JAPN:210 Japanese Culture through Film (3 Credits)**

Prerequisites: A minimum of Sophomore standing or higher and completion of English Composition I and II (ENGL 111 and ENGL 112) or equivalent. Exploration of various aspects of Japanese culture through viewing of films. Films are subtitled in English. Readings and discussions in English. (Formerly 3560:210)

**Gen Ed:** - Humanities; - Global Diversity

**JAPN:301 Advanced Intermediate Japanese I (3 Credits)**

Prerequisite: JAPN 202 or placement. Course focuses on intermediate-advanced speaking, listening, writing, and reading skills in Japanese, as well as cultural proficiency. (Formerly 3560:301)

**JAPN:422 Special Topics in Language Skills, or Culture, or Literature (3 Credits)**

Prerequisite: JAPN 202 or equivalent. (May be repeated). Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3560:422)

**JAPN:497 Individual Reading in Japanese (1-3 Credits)**

Prerequisite: JAPN 202 or permission of the department chair. Directed study in an area of individual interest chosen by the student in consultation with the instructor. (Formerly 3560:497)

## Spanish (SPAN)

**SPAN:101 Beginning Spanish I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3580:101)

**SPAN:102 Beginning Spanish II (4 Credits)**

Sequential. Prerequisite: SPAN 101. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3580:102)

**SPAN:103 Intensive First Year Spanish-Hybrid (4 Credits)**

Prerequisites: Permission of Department of Modern Languages. First year elementary Spanish in hybrid format for those who have some experience learning Spanish. (Formerly 3580:103)

**SPAN:104 Beginning Medical Spanish I (3 Credits)**

Development of basic Spanish medical oral expression by studying health terminology and practicing conversational skills. Development of an awareness of Hispanic cultures. Conducted in Spanish. (Formerly 3580:104)

**SPAN:105 Beginning Medical Spanish II (3 Credits)**

Prerequisites: Completion of SPAN 104 with a C+ or better. Development of basic Spanish medical written expression by studying health terminology and practicing writing. Development of an awareness of Hispanic cultures. Conducted in Spanish. (Formerly 3580:105)

**SPAN:106 Beginning Medical Spanish III (3 Credits)**

Prerequisites: Completion of SPAN 105 with a C+ or better. Development of Spanish medical written expression by studying health terminology and practicing writing. Development of an awareness of Hispanic cultures. Conducted in Spanish. (Formerly 3580:106)

**SPAN:111 Intensive Beginning Spanish I (4 Credits)**

Sequential. Prerequisite: Minimum of two years of prior study of Spanish at the secondary level or the equivalent, or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers the entire first year in one semester. (Formerly 3580:111)

**SPAN:112 Intensive Beginning Spanish II (4 Credits)**

Sequential. Prerequisite: SPAN 101 with a grade of B or better, or SPAN 111 with a grade of C or better, or a minimum of three years of prior study of Spanish at the secondary level and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers the entire first year in one semester. (Formerly 3580:112)

**SPAN:201 Intermediate Spanish I (3 Credits)**

Sequential. Prerequisite: SPAN 102 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3580:201)

**SPAN:202 Intermediate Spanish II (3 Credits)**

Sequential. Prerequisite: SPAN 201 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3580:202)

**SPAN:210 Spanish Culture Through Film (3 Credits)**

Prerequisites: ENGL 111, ENGL 112 and sophomore or greater standing or equivalent. This course has been designed to provide students with a wide-ranging introduction to Spanish culture and recent history. By analyzing Spanish cinema from the last half-century, with a particular emphasis on the last decade, along with selected critical texts, and various cultural artifacts on current issues in Spain, the course will explore such questions as women's roles in contemporary society, immigration and exile, globalization, and experiences of war and violence, among other themes. By the end of the semester, students will have acquired a deeper understanding and appreciation of Spain's culture, history, and cinema, as well as basic notions to write and speak critically about a film. (Formerly 3580:210)

**Gen Ed:** - Humanities; - Global Diversity

**SPAN:211 Intensive Intermediate Spanish I (3 Credits)**

Prerequisites: SPAN 102 with a grade of B or better, or SPAN 112 with a grade of C or better, or minimum of three years of prior study of Spanish at the secondary level or the equivalent and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Continuing acquisition of reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers entire year in one semester. (Formerly 3580:211)

**SPAN:212 Intensive Intermediate Spanish II (3 Credits)**

Prerequisites: SPAN 201 with a grade of B or better, or completion of SPAN 211 with a grade of C or better, or minimum of three years of prior study of Spanish at the secondary level or the equivalent and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Continuing acquisition of reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers entire second year in one semester. (Formerly 3580:212)

**SPAN:250 Hispanic Literature in Translation (3 Credits)**

(May not be taken for credit toward the Spanish major or minor.) Reading, discussion of novels, short stories of major Hispanic authors. Texts and discussion in English. (Formerly 3580:250)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**SPAN:301 Spanish Conversation (3 Credits)**

Prerequisite: SPAN 202, or SPAN 212, or equivalent, or placement test. Development of oral expression, listening comprehension and conversational ability. May be repeated for a total of six credits. (Formerly 3580:301)

**SPAN:302 Spanish Composition (3 Credits)**

Prerequisite: SPAN 202, or SPAN 212, or equivalent, or placement test. Development of writing skills through intensive practice and study of written expression in Spanish. Conducted in Spanish. May be repeated for a total of six credits. (Formerly 3580:302)

**SPAN:303 Spanish Grammar (3 Credits)**

Prerequisite: SPAN 202, or SPAN 212, or equivalent, or placement test. Post-intermediate review and study of grammar and basic principles of grammatical analysis. Conducted in Spanish. (Formerly 3580:303)

**SPAN:305 Spanish for Business (3 Credits)**

Prerequisite: SPAN 202 or instructor permission. Study of business terminology as well as cultural factors affecting the conduct of business with Hispanic nations and populations. Conducted in Spanish. (Formerly 3580:351)

**SPAN:307 Spanish Conversation: Health Professions & First Responders (3 Credits)**

Prerequisite: SPAN 202. Students will gain intermediate to advanced level oral competency in Spanish in order to conduct interviews and communicate in Spanish with Spanish-speakers (Formerly 3580:307)

**SPAN:308 Spanish Composition: Health Professions & First Responders (3 Credits)**

Prerequisites: SPAN 202. Students will gain intermediate to advanced level written competency in Spanish, write and translate documents so to communicate with Spanish-speaking patients in the medical setting. (Formerly 3580:308)

**Gen Ed:** - Complex Issues Facing Society

**SPAN:311 Spanish/Spanish-American Cultural Experience (1-6 Credits)**

Student's residence and study in a Spanish-speaking country. Repeatable once with different content, 12 credits maximum. Only 9 credits may be applied to Spanish minor. (Formerly 3580:311)

**SPAN:322 Special Topics: Spanish (3 Credits)**

Prerequisite: SPAN 202. Development of specialized language and/or cultural skills for special purposes. Repeatable for up to 9 credits. (Formerly 3580:322)

**SPAN:330 Spanish Undergraduate Professional Internship (1-6 Credits)**

Prerequisites: Completion of SPAN 202 or equivalent with a minimum 3.0 GPA in Spanish and students will need to notify a faculty advisor in the Spanish section to seek permission and approval for the enrollment in the internship course the semester prior to the experience. Students will participate in cooperating local, regional, national and international professions of community organizations to apply their proficiency in Spanish in a real-world setting. (Formerly 3580:330)

**SPAN:340 Introduction to Spanish & Spanish-American Literature (3 Credits)**

Prerequisite: Two of the group SPAN 301, SPAN 302, and SPAN 303. Reading and discussion of Spanish and Spanish-American literature of all genres. Introduction to the fundamentals of literary criticism and literary movements. Conducted in Spanish. (Formerly 3580:340)

**SPAN:360 Hispanic Culture through Film (3 Credits)**

Prerequisite: Completion of two of the following courses: [SPAN 301 or SPAN 302 or SPAN 303]. An articulation and analysis of important themes in contemporary Hispanic culture presented through film. An introduction to film criticism. Conducted in Spanish. (Formerly 3580:360)

**Gen Ed:** - Global Diversity

**SPAN:401 Advanced Spanish Conversation (3 Credits)**

Prerequisites: SPAN 301 and [SPAN 302 or SPAN 303]. Development of speaking skills at a level beyond that achieved in SPAN 301. Conducted in Spanish. Repeatable for up to 6 credits. (Formerly 3580:401)

**SPAN:402 Advanced Spanish Composition (3 Credits)**

Prerequisite: SPAN 302 and [SPAN 301 or SPAN 303]. Development of writing skills at a level beyond that achieved in SPAN 302. Conducted in Spanish. Repeatable for up to 6 credits. (Formerly 3580:402)

**SPAN:403 Advanced Grammar (3 Credits)**

Prerequisites: SPAN 303 and SPAN 301 or SPAN 302. Advanced study of Spanish syntax and grammatical analysis. Conducted in Spanish. (Formerly 3580:403)

**SPAN:404 Introduction to Spanish Linguistics (4 Credits)**

Prerequisites: SPAN 401, SPAN 402, and SPAN 403. This course provides a detailed overview of the structure of Spanish and areas of inquiry within linguistics: phonetics, phonology, morphology, syntax, semantics and applied fields. (Formerly 3580:404)

**SPAN:405 Spanish Linguistics: Phonology (4 Credits)**

Prerequisite: SPAN 401, SPAN 402, and SPAN 403. Descriptive study of Spanish phonetics and morphology, comparison of Spanish and English sounds, historical aspects, regional accents and sociolinguistic variation. Conducted in Spanish. (Formerly 3580:405)

**SPAN:406 Spanish Linguistics: Syntax (4 Credits)**

Prerequisite: SPAN 401, SPAN 402, and SPAN 403. Descriptive study of Spanish syntax; introduction to theories of grammar; overview of Spanish semantics and pragmatics. Conducted in Spanish. (Formerly 3580:406)

**SPAN:407 Survey of Hispanic Literature: Spain (4 Credits)**

Prerequisites: SPAN 340 and two of the group [SPAN 401, SPAN 402, SPAN 403]. Study of the most representative works and literary movements in Spain from the Middle Ages to the present. Conducted in Spanish. (Formerly 3580:407)

**SPAN:408 Survey of Hispanic Literature: Spanish-America (4 Credits)**

Prerequisites: SPAN 340 and two of the group [SPAN 401, SPAN 402, SPAN 403]. Study of the most representative works and literary movements in Spanish-America from the Discovery to the present. Conducted in Spanish. (Formerly 3580:408)

**SPAN:409 Cultural Manifestations in Medieval & Renaissance Spain (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Comparative study of representative artistic and literary works of the Medieval and Renaissance periods. Conducted in Spanish. (Formerly 3580:409)

**SPAN:410 Spanish Applied Linguistics (4 Credits)**

Prerequisites: SPAN 401, SPAN 402, and SPAN 403. This course discusses current theories of second language acquisition and their implications for the learning of problematic Spanish structures. (Formerly 3580:410)

**SPAN:411 Spain During the Baroque Period (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. A comparative study of the different cultural manifestations during the 17th century in Spain. Conducted in Spanish. (Formerly 3580:411)

**SPAN:412 Cervantes: Don Quijote (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Reading and analysis of Don Quijote as the first modern novel in the historical context of Renaissance and Baroque esthetics. Conducted in Spanish. (Formerly 3580:412)

**SPAN:413 Don Juan Myth in Spanish Culture (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Study of the evolution of the Don Juan myth from its origins to its latest versions in the 20th century. (Formerly 3580:413)

**SPAN:414 Cultural Politics in the River Plate (4 Credits)**

Prerequisite: [SPAN 407 or SPAN 408] or permission of instructor. This course will examine the military dictatorships of the seventies and eighties in Argentina and Uruguay by looking at how these regimes affected culture. (Formerly 3580:414)

**SPAN:416 Representing Reality in 19th Century Spain (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. A comparative study of the major literary and artistic movements in Spain from Realism to Modernism. Conducted in Spanish. (Formerly 3580:416)

**SPAN:417 Spanish/Spanish American Study Abroad Experience (3-6 Credits)**

Credit for student's course work at an accredited university in Spain or Latin America. (Formerly 3580:417)

**SPAN:418 20th Century Spain: The Avant-Garde in Literature & Art (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. A comparative study of the major literary and artistic movements in Spain which illustrate the primary cultural changes of the century. Conducted in Spanish (Formerly 3580:418)

**SPAN:419 Spanish Civil War & its Cultural Impact (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Study the impact of the Civil War on Spanish culture. (Formerly 3580:419)

**SPAN:422 Special Topics in Specialized Language Skills, Culture, Literature (1-4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3580:422)

**SPAN:425 20th Century Spanish-American Novel (4 Credits)**

Prerequisite: [SPAN 407 or SPAN 408] or permission of instructor. Reading and discussion of representative contemporary Latin American novels. Conducted in Spanish. (Formerly 3580:425)

**SPAN:427 Latino Cultures in the USA (4 Credits)**

Prerequisite: [SPAN 407 or SPAN 408] or permission of instructor. Inquiry into the Latino experience of displacement and marginality through the analysis of cultural manifestations in the U.S.A. Conducted in Spanish. (Formerly 3580:427)

**SPAN:430 Women in 20th Century Hispanic Literature (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Reading and analysis of selected works from the 20th Century that depict women in Hispanic countries. Methodologies of feminist criticism will be studied. Conducted in Spanish. (Formerly 3580:430)

**SPAN:431 Hispanic Culture: Spain (4 Credits)**

Prerequisite: Two of the group [SPAN 401, SPAN 402, SPAN 403]. Study of society, customs, history, art, music, etc. of Spain, from a Hispanic perspective. Conducted in Spanish. (Formerly 3580:431)

**SPAN:432 Hispanic Culture: Spanish America (4 Credits)**

Prerequisite: Two from the group [SPAN 401, SPAN 402, SPAN 403]. Overview and historical survey of Spanish American civilization and culture. Taken as 532, does not count toward the M.A. in Spanish. Conducted in Spanish. (Formerly 3580:432)

**SPAN:497 Individual Reading in Spanish (1-3 Credits)**

Prerequisite: SPAN 407 or SPAN 408 and departmental permission. (Formerly 3580:497)

## Advanced Spanish for Health Professions and First Responders, Certificate

### Certificate in Advanced Spanish for the Health Professions and First Responders (358001C)

**Program Contact**

Dr. Parizad Dejbord  
Professor, Modern Languages  
330-972-7824  
parizad@uakron.edu (dfrase@uakron.edu)

The following information has official approval of the **Department of Modern Languages** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Advanced Spanish for the Health Professions and First Responders" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. Students entering the program must have completed course SPAN:202 Intermediate Spanish II with a minimum grade point average of 3.0 in Spanish. Admission for all others seeking the certificate is contingent upon an Oral Proficiency Interview conducted by a member of the Spanish faculty.

### Summary

Code	Title	Hours
Core Requirements		9
Electives		6
<b>Total Hours</b>		<b>15</b>

### Core Requirements

Code	Title	Hours
SPAN:307	Spanish Conversation: Health Professions & First Responders	3
SPAN:308	Spanish Composition: Health Professions & First Responders	3
SPAN:360	Hispanic Culture through Film	3
<b>Total Hours</b>		<b>9</b>

### Electives

Code	Title	Hours
<b>Select 6 elective credits of the following:</b>		<b>6</b>
SPAN:301	Spanish Conversation	
SPAN:302	Spanish Composition	
SPAN:303	Spanish Grammar	
SPAN:311	Spanish/Spanish-American Cultural Experience	
SPAN:401	Advanced Spanish Conversation	
SPAN:402	Advanced Spanish Composition	
SPAN:417	Spanish/Spanish American Study Abroad Experience	

Total Hours 6

### Arabic, Minor Minor in Arabic (350100M)

**Program Contact**

Prof. Eihab Abousena  
Professor of Instruction, Modern Languages  
330-972-7486  
eta1@uakron.edu (dfrase@uakron.edu)

The following information has official approval of the **Department of Modern Languages** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Arabic" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. 12 credits must be at the 300 level or higher. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Electives		20
<b>Total Hours</b>		<b>20</b>

### Electives

Code	Title	Hours
<b>Select 20 credits from the following:</b>		<b>20</b>
ARAB:101	Beginning Arabic I	
ARAB:102	Beginning Arabic II	
ARAB:201	Intermediate Arabic I	
ARAB:202	Intermediate Arabic II	
ARAB:210	Arabic Culture through Film	
ARAB:301	Composition and Conversation	
ARAB:302	Arabic Media	
ARAB:303	Introduction to Modern Arabic Literature	
ARAB:304	Cultural Readings in Arabic	
ARAB:311	Arabic Cultural Experience Abroad	
ARAB:422	Special Topics in Arabic	

ARAB:497 Individual Reading in Arabic

Total Hours 20

## Beginning Medical Spanish, Certificate

### Certificate in Beginning Medical Spanish (358000C)

#### Program Contact

Dr. Parizad Dejbord

Professor, Modern Languages

330-972-7824

parizad@uakron.edu (dfrase@uakron.edu)

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The following courses constitute a "Certificate in Beginning Medical Spanish" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. This certificate is open to all health care professionals with no or very little background in Spanish.

### Summary

Code	Title	Hours
Required Courses		9
Total Hours		9

### Required Courses

Code	Title	Hours
SPAN:104	Beginning Medical Spanish I	3
SPAN:105	Beginning Medical Spanish II	3
SPAN:106	Beginning Medical Spanish III	3
Total Hours		9

## French, Minor

### Minor in French (352000M)

#### Program Contact

Dr. Maria Adamowicz-Hariasz

Associate Professor, Modern Languages

330-972-5871

madamow@uakron.edu

The following information has official approval of the **Department of Modern Languages** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in French" and must be completed with a minimum grade point average of 2.0 overall for the

minor to be noted on the student's record. No more than 9 transfer credits may be counted toward the minor. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Electives		18
Total Hours		18

### Electives

Code	Title	Hours
<b>Select 18 credits from the following:</b> <sup>1</sup>		<b>18</b>
FREN:101	Beginning French I	
FREN:102	Beginning French II	
FREN:201	Intermediate French I	
FREN:202	Intermediate French II	
FREN:300	Contemporary French and Francophone Cultures	
FREN:301	French Conversation	
FREN:302	French Composition	
FREN:303	French Culture & Civilization I	
FREN:304	French Culture & Civilization II	
FREN:305	Introduction to French Literature I	
FREN:306	Introduction to French Literature II	
FREN:308	Internship in France	
FREN:311	Contemporary French Society	
FREN:312	French/Francophone Cultural Experience Abroad	
FREN:315	French Phonetics	
FREN:350	Themes in French Literature in Translation	
FREN:351	Translation: French	
FREN:352	Translation: Business French	
FREN:402	Advanced French Grammar	
FREN:403	Advanced French: Written and Oral Communication	
FREN:407	French Literature of the Middle Ages & the Renaissance	
FREN:413	French Cinema	
FREN:419	19th Century French Literature	
FREN:422	French: Special Topics in Advanced Language Skills, Culture or Literature	
FREN:427	20th Century French Literature	
FREN:430	Contemporary Quebec	
FREN:431	Francophone Literature	
FREN:460	Selected Themes in French Literature	
FREN:497	Individual Reading in French	
FREN:498	Individual Reading in French	
Total Hours		18

<sup>1</sup> At least 12 credits must be at the 300 level or higher

## Spanish, BA

### Bachelor of Arts in Spanish (358000BA)

More on the Spanish major (<https://www.uakron.edu/modlang/academics/undergraduate/spanish-major-information.dot>)

### Departmental Requirements

Completion of 28 credits above the second year (200 level): including at least one 400-level language course and one 400-level culture course, which must be taken at The University of Akron. All courses taken toward completion of the requirements for the Spanish major must be passed with a grade of C or better in order to count toward fulfillment of the major requirements. Minimum Upper Division: Excluding workshops is 40 credits, Department credits is 28, Elective credits 36 and the minimum GPA/Major and Cumulative GPA is a 2.0.

#### Program Contact

Dr. Maria Alejandra Zanetta

Distinguished Professor and Assistant Chair, Modern Languages  
330-972-5872

zanetta@uakron.edu

The following information has official approval of **The Department of Modern Languages** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Spanish Core	28
	Additional Credits for Graduation *	44
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<b>Foreign Language</b>		<b>14</b>
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Spanish Core

Code	Title	Hours
<b>Complete a total of 28 credits at the 300/400 level, including at least one 400-level Language and Culture course:</b>		
<i>Language:</i>		
SPAN:401	Advanced Spanish Conversation	
	or SPAN:402 Advanced Spanish Composition	
	or SPAN:403 Advanced Grammar	

<i>Culture:</i> <sup>1</sup>	
SPAN:431	Hispanic Culture: Spain or SPAN:432 Hispanic Culture: Spanish America
SPAN 3XX	300-level Spanish Electives
SPAN 4XX	400-level Spanish Electives
Total Hours	28

<sup>1</sup> Must be taken in residence at the main campus at The University of Akron.

## Spanish, Minor

### Minor in Spanish (358000M)

#### Program Contact

*Dr. Maria Alejandra Zanetta*

*Distinguished Professor and Assistant Chair, Modern Languages*

330-972-5872

zanetta@uakron.edu

The following information has official approval of the **Department of Modern Languages** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Spanish" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. No more than 9 transfer credits may be counted toward the minor. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Electives		18
Total Hours		18

### Electives

Code	Title	Hours
<b>Select 18 credits from the following:</b> <sup>1</sup>		<b>18</b>
SPAN:111	Intensive Beginning Spanish I	
SPAN:112	Intensive Beginning Spanish II	
SPAN:201	Intermediate Spanish I	
SPAN:202	Intermediate Spanish II	
SPAN:211	Intensive Intermediate Spanish I	
SPAN:212	Intensive Intermediate Spanish II	
SPAN:301	Spanish Conversation	
SPAN:302	Spanish Composition	
SPAN:303	Spanish Grammar	
SPAN:311	Spanish/Spanish-American Cultural Experience	
SPAN:340	Introduction to Spanish & Spanish-American Literature	
SPAN:305	Spanish for Business	
SPAN:401	Advanced Spanish Conversation	
SPAN:402	Advanced Spanish Composition	

SPAN:403	Advanced Grammar
SPAN:404	Introduction to Spanish Linguistics
SPAN:405	Spanish Linguistics: Phonology
SPAN:406	Spanish Linguistics: Syntax
SPAN:407	Survey of Hispanic Literature: Spain
SPAN:408	Survey of Hispanic Literature: Spanish-America
SPAN:409	Cultural Manifestations in Medieval & Renaissance Spain
SPAN:410	Spanish Applied Linguistics
SPAN:411	Spain During the Baroque Period
SPAN:412	Cervantes: Don Quijote
SPAN:413	Don Juan Myth in Spanish Culture
SPAN:414	Cultural Politics in the River Plate
SPAN:416	Representing Reality in 19th Century Spain
SPAN:418	20th Century Spain: The Avant-Garde in Literature & Art
SPAN:419	Spanish Civil War & its Cultural Impact
SPAN:422	Special Topics in Specialized Language Skills, Culture, Literature
SPAN:425	20th Century Spanish-American Novel
SPAN:427	Latino Cultures in the USA
SPAN:430	Women in 20th Century Hispanic Literature
SPAN:431	Hispanic Culture: Spain
SPAN:432	Hispanic Culture: Spanish America
SPAN:497	Individual Reading in Spanish

Total Hours 18

<sup>1</sup> At least 12 credits must be at the 300 level or higher

## Music

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions (<https://www.uakron.edu/admissions/>). A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills. Prospective students should contact the School of Music for information on specialized programs, as well as dates and times for The Undergraduate Placement Examination in Music Theory.

A student receiving a grade below C- in a required music course must repeat the course. Music Education majors receiving a grade below C in a required music course must repeat the course.

## Changing Major Instruments

A student may later change their declared major instrument after being admitted to the School of Music, but must then audition and satisfy all requirements for the new area as an entering student.

## Applied Music Requirements

**Studio Study (Private Lessons)** - Skill in at least one major area of performance must be progressively developed to the highest level appropriate to the student's major. All students majoring in music are



required to enroll in applied music on their declared major instrument every semester. A performance major in the Bachelor of Music program must enroll for four credits in applied music each semester which equates to a one-hour lesson or two half-hour lessons each week. All other students enroll for two credits in applied music on their declared major instrument each semester which equates to a half-hour lesson each week.

Because of the tutorial nature of applied music study, there is an additional fee for applied music registration beyond the normal credit-hour tuition and general service fee.

The offering of applied music instruction is dependent upon the availability of instructors. Although students may request study with a given instructor, the audition does not guarantee study with a particular member of the faculty. The priority for assignment is as follows:

1. collegiate music majors;
2. music minors;
3. non-music majors who are members of University performing ensembles;
4. pre-college students in the high school/college program of the School of Music; and,
5. all others.

Students will not be eligible for applied music study if:

1. they fail to pass the entrance audition;
2. a particular instructor's studio is full;
3. the quality of work demonstrated is judged unacceptable by the applied instructor; or
4. faculty in the student's applied area conclude on the basis of a jury that a continuation of applied study is not merited.

Students in the studio are expected to exhibit a mature attitude and productive behavior.

## Levels of Applied Music Study

The study of applied music is divided into seven course levels. These conform to levels of proficiency and the requirements of the various degree programs. Entrance to applied music is by audition. Advancement in level is by promotional jury examination only.

MUSAP 000 Level for elective credit in non-music programs, pre-college adults, preparatory program enrollment, and for correcting deficiencies before permission is granted to enroll at the 100 level. Credits in applied music at this level cannot be counted toward any degree requirements in music.

Music majors may apply a maximum of eight credits from any of the following levels to their degree program. A maximum of 32 credits may be counted toward degree requirements.

MUSAP 100 - Freshman level  
 MUSAP 200 - Sophomore level  
 MUSAP 300 - Junior level  
 MUSAP 400 - Senior level

## Minimum Performance Levels Required by Degree Program

- **Bachelor of Arts** - Eight credits and completion of the 200 level in the primary applied performance area. No recital is required.
- **Bachelor of Music in Performance Major** – Thirty-two credits and completion of the 400 level in the primary applied performance area. A junior recital is required at the 300 level. A full senior recital is also required.
- **Bachelor of Music in Composition Major** – Sixteen credits and completion of the 200 level in the primary applied performance area. A full senior composition recital is required.
- **Bachelor of Music in Music Education** – Sixteen credits and completion of the 300 level in the primary applied performance area. A half senior recital is required.
- **Bachelor of Music in Jazz Studies** – Sixteen credits and completion of the 200 level in the primary applied performance area; additional completion of the 100 level in flute and clarinet for saxophone majors and the 200 level in classical guitar for electric guitar majors. A full senior recital is required.

## Jury System in Applied Music

A promotional jury is the only way in which a student may advance from one course level to another. Each music major may take a promotional jury in his/her primary applied performance area once each year, after two semesters of study, and/or after the minimum number of credits is attained. However, a faculty member may require a student to take additional semesters of study prior to a promotional jury.

Each applied area is empowered to terminate applied study, and applied study will be terminated after three attempts at the same promotional jury level. A promotional jury may be used by a student studying applied music at the 000 level as an audition to the 100 level.

## Applied Repertory of Study

Each applied music section (brass, composition, guitar, keyboard, percussion, piano, strings, voice, and woodwinds) has a published repertory of study requirements for each of the course levels. These requirements are available from the Applied Area Coordinator, individual applied instructors, and the School of Music (<https://www.uakron.edu/music/>) office.

## Studio Classes

Each music major is required to attend the weekly 50-minute class taught by his applied instructor. Attendance at studio class is part of the requirement for applied music study, and reflects in the student's grade in applied music. Performances in studio class are determined by the student's applied instructor.

## Sectional Recitals

Each applied section holds a sectional recital each week. Attendance by students studying in the section is required. Performances in sectionals are determined by the student's applied instructor and area coordinator.

## Applied Study for Non-music Majors

Non-music majors may enroll for applied music with the permission of the individual applied instructor or the area coordinator, whichever is appropriate to the area of study. Acceptance for studio study is based upon an audition, usually given the first week of classes. Only

students who meet applied studio standards will be accepted for applied instruction.

## Recital Attendance Requirements

Bachelor of Music majors are required to enroll and receive credit for eight semesters of MUSIC:157 School of Music Performance Seminar. Bachelor of Arts music majors are required to enroll and receive credit for four semesters. MUSIC:157 School of Music Performance Seminar carries no academic credit and has no fee. Further information on the attendance requirement is available in the School of Music office.

## Ensemble Requirement

Enrollment in all ensembles requires permission of the instructor.

## Major Conducted Ensemble Requirement

Students who are music majors must enroll for eight semesters in a major conducted performance ensemble on their declared major instrument. Guitar and keyboard majors should refer to the Memo of Agreement for specific ensemble requirements. Auditions for membership are held each year and occasionally each semester. All music majors are required to enroll in the major conducted ensemble as assigned by faculty and appropriate to their primary performance area every fall and spring semester.

Students pursuing a Bachelor of Music major in Performance, Theory, Composition, and Music Education must complete a minimum of eight semesters. However, keyboard majors in Music Education may substitute one year of a major choral ensemble in place of a Keyboard Ensemble. Four semesters are required for Jazz Studies majors, music minors, and those pursuing the Bachelor of Arts degree in music. Students who do not complete degree requirements within eight semesters must continue to enroll in a major conducted ensemble each semester until all graduation requirements are met, except during the semester when student teaching.

Major conducted Ensembles include: Concert Choir, Guitar Ensemble, Keyboard Ensemble, Wind Symphony, Symphonic Band, Concert Band, and University Symphony Orchestra.

## Non-major Conducted Ensemble Requirement

Non-major conducted ensembles may be taken in addition to, but not instead of, major conducted ensembles. Jazz Studies majors are required to complete eight credits in jazz ensembles in addition to four semesters of major conducted ensembles. Non-major conducted Ensembles include: the Akron Symphony Chorus, Brass Choir, Chamber Orchestra, Instrumental Ensembles, Jazz Ensemble, Jazz Lab Band, Marching Band, New Music Ensemble, Steel Drum Band, Blue and Gold Brass (Basketball Band), and Opera/Lyric Theatre.

## Unconducted Ensembles

Unconducted ensembles may be taken in addition to, but not instead of, major conducted ensembles. Unconducted ensembles include: Brass Ensembles, Jazz Combos, Mixed Ensembles, Percussion Ensembles, String Ensembles, Vocal Ensembles, and Woodwind Ensembles.

Ensemble credit is repeatable.

## Minimum Proficiency Requirements in Keyboard and Voice

All music majors must meet minimum proficiencies in keyboard and voice. Keyboard proficiency is met by successfully completing keyboard Harmony I and II and passing a final keyboard examination. Vocal proficiency is met by successfully completing required Theory and Musicianship courses.

- Music Arts, Minor (p. 265)
- Music Composition, Minor (p. 266)
- Music Education, Instrumental Band, BM (p. 266)
- Music Education, Instrumental String, BM (p. 269)
- Music Education, Vocal & Keyboard, BM (p. 272)
- Music Jazz, Minor (p. 275)
- Music Performance, Piano Accompanying, BM (p. 276)
- Music with Business Cognate, BA (p. 279)
- Music, BA (p. 281)
- Music, Brass Performance, BM (p. 283)
- Music, Composition, BM (p. 286)
- Music, Guitar Performance, BM (p. 289)
- Music, Jazz Studies, BM (p. 291)
- Music, Percussion Performance, BM (p. 294)
- Music, Piano Performance, BM (p. 297)
- Music, String Performance, BM (p. 299)
- Music, Voice Performance, BM (p. 302)
- Music, Woodwind Performance, BM (p. 304)
- Piano Pedagogy, Certificate (p. 307)

## Music - School of (MUSIC)

### MUSIC:100 Fundamentals of Music (2 Credits)

Introduction of basic notation and development of functional music reading and keyboard skills. Conducted in electronic keyboard laboratory with computer-assisted instruction available. For non-music majors only, with little or no previous musical training. (Formerly 7500:100)

### MUSIC:101 Introduction to Music Theory (2 Credits)

Prerequisite: Undergraduate Theory Placement Examination. Designed for prospective music major to correct deficiencies in theory background as determined through department placement testing. Includes classroom instruction and computer assisted instruction in basic notation, scales, meter, key signatures, ear training and basic familiarity with the keyboard. Credit not applicable toward music degree. (Formerly 7500:101)

### MUSIC:102 Introduction to Music Education (2 Credits)

Prerequisites: MUSIC 121 and MUSIC 154. Overview of the music teaching profession and its processes. Screening of degree candidates is built into the course with clinical field experience. (Formerly 7500:102)

### MUSIC:103 Trends in Jazz (2 Credits)

An overview of the first 100 years of jazz music with emphasis on major figures and styles central to the development of jazz. This course is specifically designed for the non-music major. (Formerly 7500:103)

### MUSIC:104 Class Piano I (2 Credits)

Prerequisite: MUSIC 101. Designed for student with no previous keyboard experience to learn rudimentary keyboard skills such as playing scales, chords, arpeggios and melodic patterns as well as simple music. (Formerly 7500:104)

**MUSIC:105 Class Piano II (2 Credits)**

Prerequisite: MUSIC 104. Continuation of work begun in 104. (Formerly 7500:105)

**MUSIC:106 Music Orientation (0 Credits)**

Zero credit class designed to provide information and support for incoming music majors as they transition into the academic environment of the School of Music. (Formerly 7500:106)

**MUSIC:107 Class Voice I (2 Credits)**

Prerequisite: MUSIC 101. Minimum memorization and solo singing requirement: seven songs. Voice literature emphasis; folk songs, ballads, spirituals, sacred songs and easy art songs in English. (Formerly 7500:107)

**MUSIC:108 Class Voice II (2 Credits)**

Prerequisite: MUSIC 107. Minimum memorization and solo singing requirement: eight songs. Vocal literature emphasis: old Italian and English songs, art songs in English or foreign language if student is conversant with the language. (Formerly 7500:108)

**MUSIC:110 Class Guitar (1 Credit)**

Introduction to the guitar, its repertoire and techniques. Basic classical techniques and music reading, strums, finger-picking, accompaniment patterns, blues styles will be covered. (Formerly 7500:110)

**MUSIC:121 Theory and Musicianship I (4 Credits)**

Sequential, Prerequisite: Grade of C- or higher in MUSIC 101 or placement. Analysis, aural/oral skills; Diatonic pitch materials, three clefs; simple-compound meters, rhythmic divisions and subdivisions. (Formerly 7500:121)

**MUSIC:122 Theory and Musicianship II (4 Credits)**

Sequential, Prerequisite: Grade of C- or higher in MUSIC 121. Theory, analysis, aural/oral skills: Seventh chords, secondary function, four-part dictation; asymmetric meters, borrowed subdivision. (Formerly 7500:122)

**MUSIC:141 Ear Training/Sight Reading I (1 Credit)**

Prerequisite: Placement in Theory I. Corequisite: MUSIC 151. Major and minor keys; intervals, triads and inversions; diatonic progressions; three clefs; simple and compound meters; subdivision through sixteenth notes. (Formerly 7500:141)

**MUSIC:142 Ear Training/Sight Reading II (1 Credit)**

Prerequisites: MUSIC 141 and MUSIC 151. Corequisite: MUSIC 152. Seventh chords; melodic chromaticism; secondary function; four-part dictation; asymmetric meters; borrowed subdivision. (Formerly 7500:142)

**MUSIC:151 Theory I (3 Credits)**

Sequential, Prerequisite: Theory Placement Examination (with a score of 65% or higher) or the grade of C- or higher in MUSIC 101. Study/creative use of elements of music; investigation of music of major composers of classic/romantic eras; introduction to earlier musical practices and contemporary music. (Formerly 7500:151)

**MUSIC:152 Theory II (3 Credits)**

Sequential, Prerequisite: grade of C- or higher in MUSIC 151. Study/creative use of elements of music; investigation of music of major composers of classic/romantic eras; introduction to earlier musical practices and contemporary music. (Formerly 7500:152)

**MUSIC:154 Music Literature I (2 Credits)**

Sequential. Familiarization with large body of musical material from all branches of music writing; vocal, instrumental, symphonic and choral music literature. Special attention given to style, form and structural procedures of principal composers. (Formerly 7500:154)

Gen Ed: - Arts

**MUSIC:155 Music Literature II (2 Credits)**

Sequential. Familiarization with large body of musical material from all branches of music writing; vocal, instrumental, symphonic and choral music literature. Special attention given to style, form and structural procedures of principal composers. (Formerly 7500:155)

Gen Ed: - Domestic Diversity

**MUSIC:157 School of Music Performance Seminar (0 Credits)**

Required of all undergraduate music majors until minimum requirement (8 semesters) is met. Each performance area provides a forum for student and faculty members to provide lectures, recitals and opportunity for practice of various skills necessary for successful music performance. (Formerly 7500:157)

**MUSIC:200 Seminar in Music (1-3 Credits)**

Exploration of special topics in music for the non-music major (may be repeated for a total of 9 credits) (Formerly 7500:200)

**MUSIC:201 Exploring Music: Bach to Rock (3 Credits)**

This course provides non-music majors with the skills to evaluate a wide range of music. (Formerly 7500:201)

Ohio Transfer 36: Yes

Gen Ed: - Arts

**MUSIC:210 Jazz Improvisation I (2 Credits)**

Prerequisites: MUSIC 262 and permission of instructor. Study and application of principles of jazz improvisation as they relate the chord-scale structures, motif development and style. (Formerly 7500:210)

**MUSIC:211 Jazz Improvisation II (2 Credits)**

Prerequisite: MUSIC 210. Advanced study in principles of jazz composition. (Formerly 7500:211)

**MUSIC:212 Music Industry: A Survey of Practices & Opportunities (2 Credits)**

A study of current practices affecting the professional musician and a survey of career opportunities relating to the music industry. (Formerly 7500:212)

**MUSIC:221 Theory and Musicianship III (4 Credits)**

Sequential, Prerequisite: MUSIC 122. Theory, analysis, and aural/oral skills: Chromatic harmony, dictation of mixed and irregular meters, syncopation, dotted rhythms, and ties. (Formerly 7500:221)

**MUSIC:222 Theory and Musicianship IV (4 Credits)**

Sequential, Prerequisite: MUSIC 221. Theory, analysis, and aural/oral skills: Advanced chromaticism and rhythm, extended tonality, form, serial and non-serial atonality. (Formerly 7500:222)

**MUSIC:241 Ear Training/Sight Reading III (1 Credit)**

Prerequisites: MUSIC 142 and MUSIC 152. Corequisite: MUSIC 251. Modulation; chromatic harmony; mixed meters. (Formerly 7500:241)

**MUSIC:242 Ear Training/Sight Reading IV (1 Credit)**

Prerequisites: MUSIC 241 and MUSIC 251. Corequisite: MUSIC 252. Twentieth-century materials: modes; whole-tone and octatonic scales; secundal and quartal/quintal harmony; classical, jazz, and non-western examples; polyrhythm; total and atonal contexts. (Formerly 7500:242)

**MUSIC:251 Theory III (3 Credits)**

Sequential, Prerequisite: The grade of C- or higher in MUSIC 152. Renaissance vocal counterpoint; Baroque instrumental counterpoint; form and analysis of music of all eras. (Formerly 7500:251)

**MUSIC:252 Theory IV (3 Credits)**

Sequential, Prerequisite: The grade of C- (70%) or higher in MUSIC 251. Renaissance vocal counterpoint; Baroque instrumental counterpoint; form and analysis of music of all eras. (Formerly 7500:252)

**MUSIC:259 Fretboard Harmony (2 Credits)**

Prerequisite: MUSIC 261 or permission of instructor. Essentials of basic theory and harmony as applied to the guitar fretboard: accompaniment, improvisation, transposition, modulation, figures bass, sight reading. (Formerly 7500:259)

**MUSIC:261 Keyboard Harmony I (2 Credits)**

Sequential. Prerequisites: MUSIC 105 or equivalency and MUSIC 122. Essentials of basic theory and harmony practically applied at keyboard; accompaniment, improvisation, transposition, modulation and sight-reading. (Formerly 7500:261)

**MUSIC:262 Keyboard Harmony II (2 Credits)**

Sequential. Prerequisites: MUSIC 105 or equivalency and MUSIC 122. Essentials of basic theory and harmony practically applied at keyboard; accompaniment, improvisation, transposition, modulation and sight-reading. (Formerly 7500:262)

**MUSIC:265 Diction for Singers I (2 Credits)**

Sequential. Prerequisite: Permission. Study of diction of the four most used languages (Italian, German, French and English) in vocal performance and international phonetic alphabet. Designed for student who expects to function as vocal performers and/or choral and studio voice teachers. (Formerly 7500:265)

**MUSIC:266 Diction for Singers II (2 Credits)**

Sequential. Prerequisite: MUSIC 265. Study of diction of the four most used languages (Italian, German, French and English) in vocal performance and international phonetic alphabet. Designed for student who expects to function as vocal performers and/or choral and studio voice teachers. (Formerly 7500:266)

**MUSIC:271 Piano Pedagogy & Literature I (2 Credits)**

Prerequisite: Permission of instructor. Examination of musical content and pedagogical orientation of beginning piano material to include appropriate teaching works, methods and ensemble pieces from a variety of historical periods. (Formerly 7500:271)

**MUSIC:272 Piano Pedagogy & Literature II (2 Credits)**

Prerequisite: MUSAP 125 or permission of the instructor. A survey of piano literature at all levels of difficulty, with practical emphasis on its use for teaching. (Formerly 7500:272)

**MUSIC:276 Trumpet & French Horn Methods (1 Credit)**

Prerequisite: MUSIC 102. A comprehensive approach to the performance and pedagogy of the trumpet and French horn for the instrumental music education major in preparation for teaching music. (Formerly 7500:276)

**MUSIC:277 Clarinet & Saxophone Methods (1 Credit)**

Prerequisite: MUSIC 276. A comprehensive approach to the performance and pedagogy of the clarinet and saxophone for the instrumental music education major in preparation for teaching music. (Formerly 7500:277)

**MUSIC:278 String Methods I (1 Credit)**

Prerequisites: MUSIC 222, MUSIC 262, and MUSIC 277. Fundamentals of technique, tone production, methods, and materials pertaining to teaching violin and viola in the public schools. (Formerly 7500:254)

**MUSIC:279 String Methods II (1 Credit)**

Prerequisite: MUSIC 278. Continuation of the fundamentals of technique, tone production, methods, and materials pertaining to teaching violin, viola, cello and string bass in the public schools. (Formerly 7500:255)

**MUSIC:289 Music Education Department Jury (0 Credits)**

Prerequisites: Minimum cumulative GPA of 2.5, C or higher in all School of Music courses, and minimum 200 level in primary applied study area (MUSAP 2xx). Pre/Corequisite: MUSIC 222 and MUSIC 262. Sophomore exam for music education majors. (Formerly 7500:289)

**MUSIC:298 Technologies of Music Education (2 Credits)**

Prerequisite: MUSIC 102. Introductory hands-on experiences with a wide range of technology applications and strategies to integrate technology into the music curriculum. (Formerly 7500:298)

**MUSIC:307 Techniques of Jazz Ensemble Performance & Direction (2 Credits)**

Prerequisites: MUSIC 289 and MUSIC 345 or permission of instructor. Basic experiences relating to conducting, rehearsal techniques, improvisation, performance, repertoire and other matters related to organization and direction of stage bands. Required for instrumental majors. (Formerly 7500:307)

**MUSIC:308 History & Literature of Jazz (3 Credits)**

Prerequisite: Permission of instructor. Study of origins of jazz music, its development and influence on today's culture. Investigates evolution of musical instruments as they pertain to jazz music, the artists who perform on them, and their music through live and recorded listening experiences. (Formerly 7500:308)

**MUSIC:309 Jazz Keyboard Techniques (2 Credits)**

Prerequisite: MUSIC 262. Study of and familiarization with basic jazz keyboard techniques as they relate to contemporary jazz harmony and theory. (Formerly 7500:309)

**MUSIC:310 Jazz Improvisation III (2 Credits)**

Prerequisite: MUSIC 211. Advanced study in the principles of jazz improvisation. (Formerly 7500:310)

**MUSIC:311 Jazz Improvisation IV (2 Credits)**

Prerequisite: MUSIC 310. Advanced study in the principles of jazz improvisation. (Formerly 7500:311)

**MUSIC:325 Research in Music (2 Credits)**

Prerequisites: MUSIC 155, MUSIC 222, and MUSIC 262. Techniques of basic research methods; examination of selected music materials; field trips to specialized collections. (Formerly 7500:325)

**MUSIC:339 Teaching General Music I (2 Credits)**

Prerequisites: MUSIC 222, MUSIC 262, and MUSIC 289. Methods and materials for teaching general music in pre-K to 12th grade classrooms. (Formerly 7500:339)

**MUSIC:340 Teaching General Music II (2 Credits)**

Prerequisites: MUSIC 289, and MUSIC 339. Advanced methods and materials for teaching general music with emphasis on Orff, Kodaly and Dalcroze methodologies. (Formerly 7500:340)

**MUSIC:342 Group Vocal Techniques for Choral Music Education (2 Credits)**

Prerequisites: [MUSEN 120 or MUSEN 121], MUSAP 124, MUSIC 265, and MUSIC 298. Foundational concepts of group vocal techniques. Designed for choral educators to learn physiology of the voice, basics of vocal production, and applications for the Pre-K-12 choral classroom. (Formerly 7500:268)

**MUSIC:345 Low Brass Methods (1 Credit)**

Prerequisites: MUSIC 222, MUSIC 262, MUSIC 277, and MUSIC 289. A comprehensive approach to the pedagogy and performance of the low brass for the instrumental music education major in preparation for teaching music. (Formerly 7500:345)

**MUSIC:346 Flute & Double Reed Methods (1 Credit)**

Prerequisites: MUSIC 289, MUSIC 339, and MUSIC 345. A comprehensive approach to the pedagogy and performance of the flute and double reeds for the instrumental music education major in preparation for teaching music. (Formerly 7500:346)

**MUSIC:348 Marching Band Organization & Techniques (1-2 Credits)**

Prerequisite: MUSIC 289, two semesters MUSEN 126. A discussion of the marching band. Students learn to write complete half-time show, administer marching band program. Required for instrumental music education majors. (Formerly 7500:305)

**MUSIC:351 Music History I (3 Credits)**

Sequential. Prerequisites: MUSIC 122 and MUSIC 155. Development of music from ancient to modern times; scores, recordings and live performances as illustrative material. (Formerly 7500:351)

**MUSIC:352 Music History II (3 Credits)**

Sequential. Prerequisites: MUSIC 351. Development of music from ancient to modern times; scores, recordings and live performances as illustrative material. (Formerly 7500:352)

**MUSIC:353 Electronic Music (3 Credits)**

Theory of electronically generated sound and practice of electronic music composition. Emphasis is on understanding digital and analog synthesizers in a MIDI recording studio. (Formerly 7500:353)

**MUSIC:361 Conducting (2 Credits)**

Prerequisites: All Majors MUSIC 155, MUSIC 222, and MUSIC 262; Vocal MUSIC 289, MUSIC 351, or permission; Instrumental MUSIC 278, MUSIC 346, MUSIC 352, MUSIC 454 or permission. Study and practice of conducting techniques; patterns, fermatas, tempo and dynamic change, attacks and releases, score reading, aural skills. One hour lab required. (Formerly 7500:361)

**MUSIC:363 Intermediate Conducting: Choral (2 Credits)**

Prerequisite: MUSIC 361 or instructor permission. Introduction to choral conducting with emphasis on manual techniques, vocal skills, aural skills, and gaining conducting experience. (Formerly 7500:363)

**MUSIC:366 Song Literature I (2 Credits)**

Prerequisite: MUSIC 222 or permission. Systematic study of French and German song literature presented chronologically. Includes study of stylistic compositional characteristics and repertoire of major composers of song literature. (Formerly 7500:366)

**MUSIC:367 Song Literature II (2 Credits)**

Prerequisite: MUSIC 222 or permission. Systematic study of American, British and Italian song literature presented chronologically. Includes study of stylistic compositional characteristics and repertoire of major composers of song literature. (Formerly 7500:367)

**MUSIC:368 Guitar Styles (2 Credits)**

Prerequisite: 200 performance level or permission of instructor. Techniques involved in performing musical styles other than those in classical guitar. Included are plectrum styles such as bluegrass, country and rock, as well as flamenco, folk, popular and jazz. (Formerly 7500:368)

**MUSIC:371 Analytical Techniques (2 Credits)**

Prerequisite: MUSIC 222. Techniques for analysis of musical score from all eras of Western music history, with major emphasis on works of Baroque, Classical and Romantic periods. (Formerly 7500:371)

**MUSIC:372 Post-Tonal Analytic Techniques (2 Credits)**

Prerequisite: MUSIC 222. Techniques for the analysis of musical scores from the 20th and 21st Centuries. Required of a composition major. (Formerly 7500:372)

**MUSIC:407 Jazz Arranging & Scoring (2 Credits)**

Prerequisites: MUSIC 309 and MUSIC 454. Study of jazz instrumentation from small groups to large ensembles. (Formerly 7500:407)

**MUSIC:430 Teaching and Literature: Brass Instruments (2 Credits)**

Prerequisite: Permission of instructor. Research in current trends and issues in brass teaching techniques and appropriate literature. (Formerly 7500:415)

**MUSIC:431 Teaching and Literature: Woodwind Instruments (2 Credits)**

Prerequisite: Permission of instructor. Research in current trends and issues in woodwind teaching techniques and appropriate literature. (Formerly 7500:416)

**MUSIC:432 Teaching & Literature: Percussion Instruments (2 Credits)**

To train undergraduate and graduate percussion students in techniques of percussion education. Emphasis on research, literature, performance, and techniques from elementary through secondary levels. (Formerly 7500:432)

**MUSIC:434 Teaching & Literature: String Instruments (2 Credits)**

Prerequisite: Permission of instructor. In depth study of the four bowed string instruments, their teaching and close relationship. Despite obvious difference in physical application of cello and bass from violin and viola, methods of bowing, sound production and coloring are closely related. Application of the instruments to solo, chamber and orchestral playing. (Formerly 7500:434)

**MUSIC:440 Percussion Methods (1 Credit)**

Prerequisite: MUSIC 289. Pre/Corequisite: MUSIC 442. A comprehensive approach to the pedagogy and performance of the percussion instruments for the instrumental education major in preparation for teaching music. (Formerly 7500:458)

**MUSIC:441 Junior High/Middle School Choral Methods (2 Credits)**

Prerequisites: MUSIC 289 and MUSIC 339. Pre/Corequisite: MUSIC 361. Methods and materials for teaching choral music at the JH/MS level. Develops competencies in literature selection, rehearsal techniques and assessment of the adolescent voice. (Formerly 7500:341)

**MUSIC:442 Instrumental Methods (2 Credits)**

Prerequisite: MUSIC 289. Pre/Corequisite: MUSIC 361. Procedures for teaching instrumental music at all levels. Special emphasis will be placed on classroom management, recruitment, assessment, literature selection, scheduling, and rehearsal organization. Clinical and field experience. (Formerly 7500:442)

**MUSIC:443 Instrumental Practicum (2 Credits)**

Prerequisite: MUSIC 442. Procedures for teaching instrumental music at all levels. Special emphasis will be placed on classroom management, recruitment, assessment, literature selection, scheduling, and rehearsal organization. Clinical and field experience. (Formerly 7500:443)

**MUSIC:444 Secondary Choral Music Methods/Materials (2 Credits)**

Prerequisites: MUSIC 289, MUSIC 339, and MUSIC 361. Methods, techniques, and materials for teaching secondary choral music. Develops competencies in literature, selection, rehearsal techniques, and programming methodology. (Formerly 7500:344)

**MUSIC:445 Equity and Excellence in Music Education (3 Credits)**

Prerequisites: MUSIC 289 and MUSIC 442. Inquiry-based seminars and service learning field experiences for the music education major to develop competence implementing equity and excellence in a culturally pluralistic society. (Formerly 7500:315)

**MUSIC:451 Introduction to Musicology (2 Credits)**

Prerequisite: MUSIC 352. Comparative musicology; acoustics; psychology and physiology of music; aesthetics; theory of music theory; historical musicology. (Formerly 7500:451)

**MUSIC:453 Music Software Survey and Use (2 Credits)**

Prerequisite: MUSIC 122 or permission of instructor. A survey and evaluation of available software in the various forms of musical instruction. Students will design a course suitable for submission to a programmer. (Formerly 7500:453)

**MUSIC:454 Orchestration (2 Credits)**

Prerequisite: MUSIC 222. Theory of instrumentation ranging from small ensembles to full band and orchestras. (Formerly 7500:454)

**MUSIC:455 Advanced Conducting: Instrumental (2 Credits)**

Prerequisite: MUSIC 361 and MUSIC 442 or permission. Baton techniques and problems relating to practice, reading and preparation of scores; organization of ensembles; programming; conducting large instrumental ensembles. One hour lab required. (Formerly 7500:455)

**MUSIC:456 Advanced Conducting: Choral (2 Credits)**

Prerequisite: MUSIC 363. Conducting techniques to the choral ensemble, including leadership, error detection, tonal development, stylistic accuracy and analysis. One hour lab required. (Formerly 7500:456)

**MUSIC:457 Senior Recital (0 Credits)**

Permission of applied instructor is required for this course, which is taken only during the semester of the Senior Recital. (Formerly 7500:457)

**MUSIC:465 Vocal Pedagogy (2 Credits)**

Prerequisite: Junior or greater standing. In depth study of subjects dealing with teaching voice: physiology of the vocal instrument, principles governing vocal production and application of vocal pedagogy. (Formerly 7500:465)

**MUSIC:467 Guitar Pedagogy (2 Credits)**

Prerequisite: Permission of instructor. A systematic analysis of prevailing schools of guitar pedagogy. Sound production physiology, method books and special problems in teaching addressed. (Formerly 7500:467)

**MUSIC:468 Guitar Arranging (2 Credits)**

Prerequisite: Permission of instructor. After comparative analysis of selected examples, students make original solo guitar arrangements of works written for other solo instruments and ensembles. (Formerly 7500:468)

**MUSIC:469 History & Literature: Guitar & Lute (2 Credits)**

Prerequisite: Permission of instructor. Study of plucked, fretted, string instruments from the 14th Century to the present: construction, notation, literature and performance practices. Modern editions and recordings evaluated. (Formerly 7500:469)

**MUSIC:471 Counterpoint (2 Credits)**

Prerequisite: Permission of instructor. Designed to give student of theory-composition necessary knowledge and skills for understanding contrapuntal practices and procedures; emphasis on 20th-Century techniques. (Formerly 7500:471)

**MUSIC:472 Advanced Orchestration (2 Credits)**

Prerequisite: MUSIC 454. Study of techniques of orchestral style as found in major works from classical orchestra of Haydn and Mozart through modern orchestra of Stravinsky, Bartok, Berg and Schoenberg. (Formerly 7500:472)

**MUSIC:490 Workshop in Music (1-3 Credits)**

Prerequisite: Permission of instructor. Investigation of topics not offered in regular curriculum. Graduate student must fulfill additional requirements. (Formerly 7500:490)

**MUSIC:492 Student Teaching Colloquium (3 Credits)**

Prerequisite: Restricted to students enrolled in Student Teaching in Music. For music education majors; certification, contracts, benefits, job market prospects and student teaching experience sharing. (Formerly 7500:492)

**Gen Ed:** - Capstone

**MUSIC:497 Independent Study in Music (1-2 Credits)**

(May be repeated for a total of four credits) Prerequisites: A minimum academic standing of Senior, a Music major and permission of department head. Independent study under supervision of specially selected faculty members in subject area bearing on student's own goals. (Formerly 7500:497)

**MUSIC:498 Senior Honors Project: Music (1-3 Credits)**

(May be repeated for a total of six credits) Individually designed project demonstrating scholarship, analysis, advanced musicianship, research and/or creativity according to student interest. Restricted to University honors music student. (Formerly 7500:498)

## Music Organizations (MUSEN)

**MUSEN:101 University Symphony Youth Orchestra (1 Credit)**

This ensemble is designed for the post-secondary student who wishes to participate in a select group performing orchestral literature. By audition only. (Formerly 7510:101)

**MUSEN:102 Akron Symphony Chorus (1 Credit)**

Open to University and community members by audition. Prospective members should contact School of Music two weeks before semester begins. Performs with Akron Symphony Orchestra. (Formerly 7510:102)

**MUSEN:103 University Symphony: Orchestra (1 Credit)**

Membership by audition. Organization devoted to study of orchestral literature. Full-length concerts as well as special University appearances. Major conducted ensemble. (Formerly 7510:103)

**MUSEN:104 Wind Symphony (1 Credit)**

Membership by audition. The Wind Symphony is the most select band at the University and performs the most demanding and challenging music available. Major conducted ensemble. (Formerly 7510:104)

**MUSEN:105 Vocal Choral Ensemble (1 Credit)**

Membership open to those enrolled in applied voice study. Coaching and rehearsal of solo and ensemble literature for voices from operatic, oratorio and lieder repertoires. (Formerly 7510:105)

**MUSEN:106 Brass Ensemble (1 Credit)**

Membership by audition. Study and performance of literature for brass ensemble from all periods of music history. Frequent public concerts. For advanced brass players. (Formerly 7510:106)

**MUSEN:107 String Ensemble (1 Credit)**

Membership by audition. In-depth study of performance of chamber music literature with special emphasis on string quartet and piano trio. (Formerly 7510:107)

**MUSEN:108 Opera/Lyric Theater Workshop (1 Credit)**

Membership by audition. Musical and dramatic group study of excerpts from operatic repertoire. Includes annual production of standard opera and/or contemporary chamber work with staging, costumes and scenery. (Formerly 7510:108)

**MUSEN:109 Percussion Ensemble (1 Credit)**

Membership by audition. Study and performance of literature for various percussion groups; develops skill in ensemble performance. (Formerly 7510:109)

**MUSEN:110 Woodwind Ensemble (1 Credit)**

Membership by audition. Study, reading, and performance of major orchestral and serenade repertoire for wind instruments. (Formerly 7510:110)

**MUSEN:114 Keyboard Ensemble (1 Credit)**

In-depth study of ensemble playing. Eight semesters required for Keyboard majors, six semesters for Keyboard Mus. Ed. majors, and each semester for keyboard scholarship recipients. (Formerly 7510:114)

**MUSEN:115 Jazz Ensemble (1 Credit)**

Membership by audition. Provides experience in jazz ensemble performance. Student is assumed to have knowledge of rudiments of music and some experience in jazz performance. (Formerly 7510:115)

**MUSEN:116 Guitar Ensemble (1 Credit)**

Membership by audition. Provides experience in conducted ensemble performance for guitarists. Major conducted ensemble. (Formerly 7510:116)

**MUSEN:118 Small Ensemble-Mixed (1 Credit)**

Chamber Ensemble, Baroque Ensemble and Contemporary Music Ensemble. Each is a group of diverse instruments which rehearses and performs a selected body of music. (Formerly 7510:118)

**MUSEN:120 Concert Choir (1 Credit)**

Membership by audition. Highly select mixed choir. Performs classical literature from all periods. Campus, regional, and tour performances. "Major conducted ensemble" for vocal majors. (Formerly 7510:120)

**MUSEN:121 University Singers (1 Credit)**

Membership by audition. Mixed ensemble devoted to performance of a wide variety of choral literature from classical to popular. "Major conducted ensemble" for vocal majors. (Formerly 7510:121)

**MUSEN:125 Symphony Band (1 Credit)**

Membership by audition. The Symphony Band is a select ensemble at the University and performs standard and contemporary repertoire for wind bands. Major conducted ensemble. (Formerly 7510:125)

**MUSEN:126 Marching Band (1 Credit)**

Enrollment is open to all members of the University student body. This organization is noted for its high energy performances at University football games. (Formerly 7510:126)

**MUSEN:127 Blue & Gold Brass (1 Credit)**

Membership by audition. The official band for Akron home men's basketball games. (Formerly 7510:127)

**MUSEN:128 Concert Band (1 Credit)**

Membership by audition. Open to all students regardless of academic major. The Concert Band performs standard and contemporary repertoire for wind bands. Major conducted ensemble. (Formerly 7510:128)

**MUSEN:129 Blue & Gold Brass II (1 Credit)**

Membership by audition. The official band for Akron home ladies basketball games. (Formerly 7510:129)

**MUSEN:130 Summer Symphonic Band (1 Credit)**

Membership open to UA students and community musicians. Enrollment in course required. Summer Symphonic Band performs standard repertoire for wind band. (Formerly 7510:130)

**MUSEN:150 Chamber Choir (1 Credit)**

Membership by audition. Premiere and flagship choral ensemble. Highest level of musicianship, vocal technique, and professionalism required. Performs classical literature of all periods and genres. (Formerly 7510:150)

**MUSEN:421 Guitar Chamber Music (1 Credit)**

Prerequisite: Open to all upper class instrumentalists and vocalists. Guitarists must have taken Guitar Ensemble, MUSEN 116. Study, coaching, and performance of major works for guitar with other instruments or voice. Major conducted ensemble for guitar majors. (Formerly 7510:421)

**MUSEN:431 Summer Drum Corps Experience (1 Credit)**

Prerequisite: Permission of instructor. Summer Drum Corps Experience provides one credit for participation in a Junior Level - Division I, II, or III Drum and Bugle Corps as part of the Drum Corps International Summer Music Games. (Formerly 7510:431)

## Applied Music (MUSAP)

**MUSAP:21 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 21)

**MUSAP:22 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 22)

**MUSAP:23 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 23)

**MUSAP:24 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 24)







**MUSAP:67 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 67)

**MUSAP:68 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 68)

**MUSAP:69 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 69)

**MUSAP:121 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:121)

**MUSAP:122 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:122)

**MUSAP:123 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:123)

**MUSAP:124 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:124)

**MUSAP:125 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:125)

**MUSAP:126 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:126)

**MUSAP:127 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:127)

**MUSAP:128 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:128)

**MUSAP:129 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:129)

**MUSAP:130 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:130)

**MUSAP:131 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:131)

**MUSAP:132 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:132)

**MUSAP:133 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:133)

**MUSAP:134 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:134)

**MUSAP:135 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:135)

**MUSAP:136 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:136)

**MUSAP:137 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:137)

**MUSAP:138 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:138)

**MUSAP:139 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:139)

**MUSAP:140 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:140)

**MUSAP:141 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:141)

**MUSAP:142 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated) (Formerly 7520:142)

**MUSAP:161 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:161)

**MUSAP:162 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:162)

**MUSAP:163 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:163)

**MUSAP:164 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:164)

**MUSAP:165 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:165)

**MUSAP:166 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:166)

**MUSAP:167 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:167)

**MUSAP:168 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:168)

**MUSAP:169 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:169)

**MUSAP:221 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:221)

**MUSAP:222 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:222)

**MUSAP:223 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:223)

**MUSAP:224 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:223)

**MUSAP:225 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:224)

**MUSAP:226 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:226)

**MUSAP:227 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:227)

**MUSAP:228 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:228)

**MUSAP:229 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:229)

**MUSAP:230 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:230)

**MUSAP:231 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:231)

**MUSAP:232 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:232)

**MUSAP:233 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:233)

**MUSAP:234 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:234)

**MUSAP:235 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:235)

**MUSAP:236 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:236)

**MUSAP:237 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:237)

**MUSAP:238 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:238)

**MUSAP:239 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:239)

**MUSAP:240 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:240)

**MUSAP:241 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:241)

**MUSAP:242 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music, MUSIC 252 and permission of instructor; 7500:452 recommended. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated) Private instruction in composition. Primarily for student whose major is theory-composition. (Formerly 7520:242)

**MUSAP:261 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:261)



**MUSAP:262 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:262)

**MUSAP:263 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:263)

**MUSAP:264 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:264)

**MUSAP:265 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:265)

**MUSAP:266 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:266)

**MUSAP:267 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:267)

**MUSAP:268 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:268)

**MUSAP:269 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:269)

**MUSAP:321 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:321)

**MUSAP:322 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:322)

**MUSAP:323 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:323)

**MUSAP:324 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:324)

**MUSAP:325 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:325)

**MUSAP:326 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:326)

**MUSAP:327 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:327)

**MUSAP:328 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:328)

**MUSAP:329 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:329)

**MUSAP:330 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:330)

**MUSAP:331 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:331)

**MUSAP:332 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:332)

**MUSAP:333 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:333)

**MUSAP:334 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:334)

**MUSAP:335 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:335)

**MUSAP:336 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:336)

**MUSAP:337 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:337)

**MUSAP:338 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:338)

**MUSAP:339 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:339)

**MUSAP:340 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:340)

**MUSAP:341 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:341)

**MUSAP:342 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music, MUSIC 252 and permission of instructor; 7500:452 recommended. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated). Private instruction in composition. Primarily for student whose major is theory-composition. (Formerly 7520:342)

**MUSAP:361 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:361)

**MUSAP:362 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:362)

**MUSAP:363 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:363)

**MUSAP:364 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:364)

**MUSAP:365 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:365)

**MUSAP:366 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:366)

**MUSAP:367 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:367)

**MUSAP:368 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:368)

**MUSAP:369 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:369)

**MUSAP:421 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:421)

**MUSAP:422 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:422)

**MUSAP:423 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:423)

**MUSAP:424 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:424)

**MUSAP:425 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:425)

**MUSAP:426 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:426)

**MUSAP:427 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:427)

**MUSAP:428 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:428)

**MUSAP:429 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:429)

**MUSAP:430 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:430)

**MUSAP:431 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:431)

**MUSAP:432 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:432)

**MUSAP:433 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:433)

**MUSAP:434 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:434)

**MUSAP:435 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:435)

**MUSAP:436 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:436)

**MUSAP:437 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:437)

**MUSAP:438 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:438)

**MUSAP:439 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:439)

**MUSAP:440 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:440)

**MUSAP:441 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:441)

**MUSAP:442 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated) Prerequisites: MUSIC 252 and permission of instructor; 7500:452 recommended. Private instruction in composition. Primarily for student whose major is theory-composition. (Formerly 7520:442)

**MUSAP:461 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:461)

**MUSAP:462 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:462)

**MUSAP:463 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:463)



**MUSAP:464 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:464)

**MUSAP:465 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:465)

**MUSAP:466 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:466)

**MUSAP:467 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:467)

**MUSAP:468 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:468)

**MUSAP:469 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:469)

## Music Arts, Minor

### Minor in Music - Arts (C50001M)

**Program Contact**

Dr. Marc Reed  
Director  
School of Music  
330-972-5761  
marcreed@uakron.edu

The following information has official approval of the **School of Music** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Music - Arts" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. In order to complete the Minor in Music, the student must successfully jury to the 200 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		11
Electives		14
Total Hours		25

## Required Courses

Code	Title	Hours
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:351	Music History I	3
or MUSIC:352	Music History II	
Total Hours		11

## Electives

Code	Title	Hours
<i>Select 2 Elective credits from the 300/400 level</i>		2
MUSIC 3xx	300-level Music Electives	
MUSIC 4xx	400-level Music Electives	
<i>Select 4 Ensemble Elective credits<sup>1</sup></i>		4
MUSEN xxx	Ensemble Elective	
MUSEN xxx	Ensemble Elective	
MUSEN xxx	Ensemble Elective	
MUSEN xxx	Ensemble Elective	
<i>Select 8 Applied Music Credits<sup>2</sup></i>		8
MUSAP xxx	Applied Music Elective	
MUSAP xxx	Applied Music Elective	
MUSAP xxx	Applied Music Elective	
MUSAP xxx	Applied Music Elective	
Total Hours		14

<sup>1</sup> Students must complete the 4 credits for the Ensemble Electives requirement (MUSEN XXX) in four separate semesters.

<sup>2</sup> Students must complete the 8 credits for the Applied Music requirement (MUSAP XXX) in four separate semesters.

## Music Composition, Minor

### Minor in Music Composition (C50003M)

The Music Composition Minor is designed for students who have an interest in developing their skills as composers. It can be added to a music major degree or any other degree offered by the university.

The following information has official approval of the **School of Music** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Music Composition" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. In order to complete the Minor in Music, the student must successfully jury to the 200 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		16
Electives		6
Total Hours		22

## Required Courses

Code	Title	Hours
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSAP:142	Composition <sup>1</sup>	8
Total Hours		16

<sup>1</sup> Students must complete the 8 credits for the Applied Music requirement (MUSAP:142) in four separate semesters. Completion of the 100 level is required.

## Electives

Code	Title	Hours
<b>Complete 6 credits from the following:</b>		<b>6</b>
MUSIC:351	Music History I	
or MUSIC:352	Music History II	
MUSIC:353	Electronic Music	
MUSIC:371	Analytical Techniques	
MUSIC:372	Post-Tonal Analytic Techniques	
MUSIC:407	Jazz Arranging & Scoring	
MUSIC:453	Music Software Survey and Use	
MUSIC:454	Orchestration	
MUSIC:471	Counterpoint	
MUSIC:497	Independent Study in Music	
Total Hours		6

## Music Education, Instrumental Band, BM

### Bachelor of Music in Music Education, Instrumental Band (C50208BM)

More on the Music Education, Instrumental Band major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music education leading to initial state teaching licensure in the field of music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. In addition to core music classes, students complete a sequential series of methods and pedagogy courses and professional education courses all leading to a culminating semester of student teaching. Completion of the degree also requires passing scores on a departmental barrier exam, state department of education music content exam, and the successful completion of a capstone assessment of teaching during the student teaching semester.

## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

Students who major in music education must pass a departmental barrier exam typically attempted at the end of the second year of study. Students must also meet admission requirements for the School of Education and be able to pass required criminal background checks in order to fulfill observation and field experience components of the degree.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	31
	Music Core	30
	Music Education Courses	43
	School of Education Courses	9
	Applied Music and Performance Courses	26
	<b>Total Hours</b>	<b>139</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	

Diversity	
	Domestic Diversity
	Global Diversity
Integrated and Applied Learning	
	<i>Select one class from one of the following subcategories:</i>
	Complex Issues Facing Society
	Capstone
	<i>Review the General Education Requirements page for detailed course listings.</i>
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
	<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>	
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
<b>Total Hours</b>		<b>30</b>

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Music Education Courses

Code	Title	Hours
MUSIC:102	Introduction to Music Education	2
MUSIC:278	String Methods I	1
MUSIC:279	String Methods II	1
MUSIC:276	Trumpet & French Horn Methods	1
MUSIC:277	Clarinet & Saxophone Methods	1
MUSIC:289	Music Education Department Jury <sup>1</sup>	0
MUSIC:298	Technologies of Music Education	2
MUSIC:348	Marching Band Organization & Techniques	1-2

MUSIC:307	Techniques of Jazz Ensemble Performance & Direction	2
MUSIC:445	Equity and Excellence in Music Education	3
MUSIC:339	Teaching General Music I	2
MUSIC:345	Low Brass Methods	1
MUSIC:346	Flute & Double Reed Methods	1
MUSIC:361	Conducting	2
MUSIC:442	Instrumental Methods	2
MUSIC:443	Instrumental Practicum	2
MUSIC:454	Orchestration	2
MUSIC:455	Advanced Conducting: Instrumental	2
MUSIC:440	Percussion Methods	1
MUSEN:120	Concert Choir	1
or MUSEN:121	University Singers	
<b>Complete the following courses in the same semester for 12 credits:</b>		<b>12</b>
<sup>2</sup>		
EDSE:495	Student Teaching: Secondary Education	
MUSIC:492	Student Teaching Colloquium	
Total Hours		42-43

- <sup>1</sup> Student must pass jury before enrolling in subsequent music education courses.
- <sup>2</sup> Students must pass all music and professional education courses with a C or better in order to be eligible to student teach in Music Education.

## School of Education Courses

Code	Title	Hours
EDFN:220	Educational Psychology	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
Total Hours		9

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSEN:126	Marching Band (two semesters)	1
MUSAP:1xx	Applied Music Primary Instrument	4
MUSAP:2xx	Applied Music Primary Instrument	4
MUSAP:3xx	Applied Music Primary Instrument <sup>1</sup>	4
MUSAP:xxx	Applied Music Primary Instrument	4
MUSIC:457	Senior Recital (half recital)	0
<b>Complete a minimum of 8 credits from the following:</b> <sup>2</sup>		<b>8</b>
MUSEN:104	Wind Symphony	
MUSEN:125	Symphony Band	
MUSEN:128	Concert Band	
Total Hours		25

- <sup>1</sup> Completion of 300 level required prior to student teaching.
- <sup>2</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

## Recommended Sequence If placed into Intro to Music Theory

1st Year		Hours
Fall Semester		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:126	Marching Band	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement <sup>2</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>2</sup>	3
Hours		14

Spring Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:102	Introduction to Music Education	2
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II <sup>2</sup>	3
	Speaking Requirement	3
Hours		19

Summer Semester		Hours
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		39

## If placed into Theory & Musicianship I

1st Year		Hours
Fall Semester		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:126	Marching Band	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement <sup>2</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>2</sup>	3
Hours		18

Spring Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:102	Introduction to Music Education	2

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II <sup>2</sup>	3
	Speaking Requirement	3
	Hours	19
	Total Hours	37

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

<sup>2</sup> General Education requirement required for admission to School of Education.

## ALL

### 2nd Year

Fall Semester	Hours	
MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:126	Marching Band	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:276	Trumpet & French Horn Methods	1
MUSIC:298	Technologies of Music Education	2
	Social Science Requirement	3
	Hours	16

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:120	Concert Choir	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:277	Clarinet & Saxophone Methods	1
MUSIC:289	Music Education Department Jury	0
	Natural Science with Lab Requirement	4
	Social Science Requirement	3
	Hours	18

### 3rd Year

Fall Semester	Hours	
MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:351	Music History I	3
MUSIC:278	String Methods I	1
MUSIC:345	Low Brass Methods	1
MUSIC:339	Teaching General Music I	2
MUSIC:454	Orchestration	2
	Natural Science Requirement	3
	Arts/Humanities Requirement	3
	Hours	18

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
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MUSAP:3xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:352	Music History II	3
EDFN:220	Educational Psychology	3
EDIS:225	Introduction to Exceptionalities	3
MUSIC:279	String Methods II	1
MUSIC:346	Flute & Double Reed Methods	1
MUSIC:348	Marching Band Organization & Techniques	1-2
	Hours	15-16

### 4th Year

#### Fall Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:4xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:361	Conducting	2
MUSIC:442	Instrumental Methods	2
MUSIC:440	Percussion Methods	1
EDCI:440	Literacy in the Content Areas	3
	Arts/Humanities Requirement	3
	Hours	14

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital (half recital)	0
MUSAP:4xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:455	Advanced Conducting: Instrumental	2
MUSIC:443	Instrumental Practicum	2
MUSIC:307	Techniques of Jazz Ensemble Performance & Direction	2
MUSIC:445	Equity and Excellence in Music Education	3
	Hours	12

### 5th Year

#### Fall Semester

EDSE:495	Student Teaching: Secondary Education	6-11
MUSIC:492	Student Teaching Colloquium	3
	Hours	9-14
	Total Hours	102-108

## Music Education, Instrumental String, BM

### Bachelor of Music in Music Education, Instrumental String (C50207BM)

More on the Music Education, Instrumental String major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music education leading to initial state teaching licensure in the field of music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. In addition to core music classes, students complete a sequential series of methods and pedagogy courses and professional education courses all leading to a culminating semester

of student teaching. Completion of the degree also requires passing scores on a departmental barrier exam, state department of education music content exam, and the successful completion of a capstone assessment of teaching during the student teaching semester.

## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

Students who major in music education must pass a departmental barrier exam typically attempted at the end of the second year of study. Students must also meet admission requirements for the School of Education and be able to pass required criminal background checks in order to fulfill observation and field experience components of the degree.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	31
	Music Core	30
	Music Education Courses	41
	College of Education Courses	9
	Applied Music and Performance Courses	24
	<b>Total Hours</b>	<b>135</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	

<b>Academic Foundations</b>	<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
<i>Writing: 6 credit hours</i>	

<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
	<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>	
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
<b>Total Hours</b>		<b>30</b>

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Music Education Courses

Code	Title	Hours
MUSIC:102	Introduction to Music Education	2
MUSIC:278	String Methods I	1
MUSIC:279	String Methods II	1
MUSIC:276	Trumpet & French Horn Methods	1
MUSIC:277	Clarinet & Saxophone Methods	1

MUSIC:289	Music Education Department Jury <sup>1</sup>	0
MUSIC:298	Technologies of Music Education	2
MUSIC:307	Techniques of Jazz Ensemble Performance & Direction	2
MUSIC:445	Equity and Excellence in Music Education	3
MUSIC:339	Teaching General Music I	2
MUSIC:345	Low Brass Methods	1
MUSIC:346	Flute & Double Reed Methods	1
MUSIC:361	Conducting	2
MUSIC:442	Instrumental Methods	2
MUSIC:443	Instrumental Practicum	2
MUSIC:454	Orchestration	2
MUSIC:455	Advanced Conducting: Instrumental	2
MUSIC:440	Percussion Methods	1
MUSEN:120	Concert Choir	1
	or MUSEN:121 University Singers	
<b>Complete the following courses in the same semester for 12 credits:</b> <sup>2</sup>		<b>12</b>
EDSE:495	Student Teaching: Secondary Education	
MUSIC:492	Student Teaching Colloquium	
Total Hours		41

<sup>1</sup> Student must pass jury before enrolling in subsequent music education courses.

<sup>2</sup> Students must pass all music and professional education courses with a C or better in order to be eligible to student teach in Music Education.

## College of Education Courses

Code	Title	Hours
EDFN:220	Educational Psychology	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
Total Hours		9

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSAP:1xx	Applied Music Primary Instrument	4
MUSAP:2xx	Applied Music Primary Instrument	4
MUSAP:3xx	Applied Music Primary Instrument <sup>1</sup>	4
MUSAP:xxx	Applied Music Primary Instrument	4
MUSIC:457	Senior Recital (half recital)	0
MUSEN:103	University Symphony: Orchestra <sup>2</sup>	1
Total Hours		17

<sup>1</sup> Completion of 300 level required prior to student teaching.

<sup>2</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

## Recommended Sequence If placed into Intro to Music Theory

1st Year		Hours
Fall Semester		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement <sup>2</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>2</sup>	3
Hours		13

Spring Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:102	Introduction to Music Education	2
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II <sup>2</sup>	3
	Speaking Requirement <sup>2</sup>	3
Hours		19

Summer Semester		Hours
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		38

## If placed into Theory & Musicianship I

1st Year		Hours
Fall Semester		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement <sup>2</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>2</sup>	3
Hours		17

Spring Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:102	Introduction to Music Education	2
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2

MUSIC:155	Music Literature II	2
ENGL:112	English Composition II <sup>2</sup>	3
	Speaking Requirement <sup>2</sup>	3
	Hours	19
	Total Hours	36

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

<sup>2</sup> General Education requirement required for admission to School of Education.

## ALL

### 2nd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:276	Trumpet & French Horn Methods	1
MUSIC:298	Technologies of Music Education	2
	Social Science Requirement	3
	Hours	15

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSEN:120	Concert Choir	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:277	Clarinet & Saxophone Methods	1
MUSIC:289	Music Education Department Jury	0
	Natural Science with Lab Requirement <sup>2</sup>	4
	Social Science Requirement	3
	Hours	18

### 3rd Year

#### Fall Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:351	Music History I	3
MUSIC:278	String Methods I	1
MUSIC:345	Low Brass Methods	1
MUSIC:339	Teaching General Music I	2
MUSIC:454	Orchestration	2
	Arts/Humanities Requirement	3
	Hours	15

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:352	Music History II	3
EDFN:220	Educational Psychology	3

EDIS:225	Introduction to Exceptionalities	3
MUSIC:279	String Methods II	1
MUSIC:346	Flute & Double Reed Methods	1
	Arts/Humanities Requirement	3
	Hours	17

### 4th Year

#### Fall Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:3/4xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:361	Conducting	2
MUSIC:442	Instrumental Methods	2
MUSIC:440	Percussion Methods	1
EDCI:440	Literacy in the Content Areas	3
	Natural Science Requirement	3
	Hours	14

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital (half recital)	0
MUSAP:3/4xx	Applied Music	2
MUSEN:103	University Symphony: Orchestra	1
MUSIC:455	Advanced Conducting: Instrumental	2
MUSIC:443	Instrumental Practicum	2
MUSIC:445	Equity and Excellence in Music Education	3
	Hours	10

### 5th Year

#### Fall Semester

EDSE:495	Student Teaching: Secondary Education	6-11
MUSIC:492	Student Teaching Colloquium	3
	Hours	9-14
	Total Hours	98-103

## Music Education, Vocal & Keyboard, BM

### Bachelor of Music in Music Education, Vocal & Keyboard (C50206BM)

More on the Music Education, Vocal & Keyboard major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music education leading to initial state teaching licensure in the field of music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. In addition to core music classes, students complete a sequential series of methods and pedagogy courses and professional education courses all leading to a culminating semester of student teaching. Completion of the degree also requires passing scores on a departmental barrier exam, state department of education music content exam, and the successful completion of a capstone assessment of teaching during the student teaching semester.



## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

Students who major in music education must pass a departmental barrier exam typically attempted at the end of the second year of study. Students must also meet admission requirements for the School of Education and be able to pass required criminal background checks in order to fulfill observation and field experience components of the degree.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	31
	Music Core	30
	Music Education Courses	40
	School of Education Courses	9
	Applied Music and Performance Courses	28
	<b>Total Hours</b>	<b>138</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	

Diversity	Hours
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
	<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>	
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
	<b>Total Hours</b>	<b>30</b>

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Music Education Courses

Code	Title	Hours
MUSIC:102	Introduction to Music Education	2
MUSIC:265	Diction for Singers I	2
MUSIC:342	Group Vocal Techniques for Choral Music Education	2
	or MUSIC:465 Vocal Pedagogy	
MUSIC:276	Trumpet & French Horn Methods	1
	or MUSIC:277 Clarinet & Saxophone Methods	
MUSIC:289	Music Education Department Jury	0
MUSIC:298	Technologies of Music Education	2

MUSIC:445	Equity and Excellence in Music Education	3
MUSIC:339	Teaching General Music I	2
MUSIC:340	Teaching General Music II	2
MUSIC:441	Junior High/Middle School Choral Methods	2
MUSIC:444	Secondary Choral Music Methods/Materials	2
MUSIC:361	Conducting	2
MUSIC:363	Intermediate Conducting: Choral	2
MUSIC:442	Instrumental Methods	2
MUSIC:456	Advanced Conducting: Choral	2
Complete the following courses in the same semester for 12 credits: <sup>2</sup>		12
EDSE:495	Student Teaching: Secondary Education	
MUSIC:492	Student Teaching Colloquium	
Total Hours		40

<sup>1</sup> Student must pass jury before enrolling in subsequent music education courses.

<sup>2</sup> Students must pass all music and professional education courses with a C or better in order to be eligible to student teach in Music Education.

## School of Education Courses

Code	Title	Hours
EDFN:220	Educational Psychology	3
EDCI:440	Literacy in the Content Areas	3
EDIS:225	Introduction to Exceptionalities	3
Total Hours		9

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSAP:1xx	Applied Music Primary Instrument	4
MUSAP:2xx	Applied Music Primary Instrument	4
MUSAP:3xx	Applied Music Primary Instrument <sup>1</sup>	4
MUSAP:xxx	Applied Music Primary Instrument	4
MUSIC:457	Senior Recital (half recital)	0

**Complete a minimum of 8 credits from the following:<sup>2</sup>** 8

MUSEN:120	Concert Choir	
MUSEN:121	University Singers	1

**Select one of the following groups:** 4

*Guitar Majors:*

MUSAP:24 & MUSAP:25	Voice and Piano	
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*Keyboard Majors:*

MUSAP:22 & MUSAP:24	Classical Guitar and Voice	
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*Vocal Majors:*

MUSAP:22 & MUSAP:25	Classical Guitar and Piano	
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Total Hours 29

<sup>1</sup> Completion of 300 level required prior to student teaching.

<sup>2</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

## Recommended Sequence If placed into Intro to Music Theory

**1st Year**

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:120	Concert Choir	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement <sup>2</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>2</sup>	3
Hours		13

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:120	Concert Choir	1
MUSIC:102	Introduction to Music Education	2
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II <sup>2</sup>	3
	Speaking Requirement <sup>2</sup>	3
Hours		19

**Summer Semester**

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		38

## If placed into Theory & Musicianship I

**1st Year**

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:120	Concert Choir	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement <sup>2</sup>	3
	Mathematics, Statistics and Logic Requirement <sup>2</sup>	3
Hours		17

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2

MUSEN:120	Concert Choir	1
MUSIC:102	Introduction to Music Education	2
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II <sup>2</sup>	3
	Speaking Requirement <sup>2</sup>	3
Hours		19
Total Hours		36

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

<sup>2</sup> General Education requirement required for admission to School of Education.

## ALL

### 2nd Year

Fall Semester	Hours
MUSIC:157 School of Music Performance Seminar	0
MUSAP:2xx Applied Music	2
MUSEN:120 Concert Choir	1
MUSIC:221 Theory and Musicianship III	4
MUSIC:261 Keyboard Harmony I	2
MUSIC:265 Diction for Singers I	2
MUSIC:298 Technologies of Music Education	2
Social Science Requirement	3
Hours	16

### Spring Semester

MUSIC:157 School of Music Performance Seminar	0
MUSAP:2xx Applied Music	2
MUSEN:120 Concert Choir	1
MUSIC:222 Theory and Musicianship IV	4
MUSIC:262 Keyboard Harmony II	2
MUSIC:289 Music Education Department Jury	0
Natural Science with Lab Requirement	4
Arts/Humanities Requirement	3
Hours	16

### 3rd Year

Fall Semester	Hours
MUSIC:157 School of Music Performance Seminar	0
MUSAP:3xx Applied Music	2
MUSEN:120 Concert Choir	1
MUSIC:351 Music History I	3
MUSIC:339 Teaching General Music I	2
Complete 2 of the following 3 courses:	4
MUSAP:22 Classical Guitar (Voice & Keyboard Majors Only)	
MUSAP:24 Voice (Keyboard & Guitar Majors Only)	
MUSAP:25 Piano (Voice & Guitar Majors Only)	
MUSIC:342 Group Vocal Techniques for Choral Music Education <sup>1</sup>	2
MUSIC:276 Trumpet & French Horn Methods <sup>3</sup>	1
Natural Science Requirement	3

### Arts/Humanities Requirement <sup>2</sup>

Hours	18
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### Spring Semester

MUSIC:157 School of Music Performance Seminar	0
MUSAP:3xx Applied Music	2
MUSEN:120 Concert Choir	1
MUSIC:352 Music History II	3
EDFN:220 Educational Psychology	3
EDIS:225 Introduction to Exceptionalities	3
MUSIC:340 Teaching General Music II	2
MUSIC:277 Clarinet & Saxophone Methods <sup>3</sup>	
MUSIC:361 Conducting	2

Hours	16
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### 4th Year

#### Fall Semester

MUSIC:157 School of Music Performance Seminar	0
MUSAP:xxx Applied Music	2
MUSEN:120 Concert Choir	1
MUSIC:363 Intermediate Conducting: Choral	2
MUSIC:442 Instrumental Methods	2
MUSIC:444 Secondary Choral Music Methods/ Materials	2
EDCI:440 Literacy in the Content Areas	3
MUSIC:342 Group Vocal Techniques for Choral Music Education <sup>1</sup>	
Arts/Humanities Requirement <sup>2</sup>	3
Social Science Requirement	3

Hours	18
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#### Spring Semester

MUSIC:157 School of Music Performance Seminar	0
MUSIC:457 Senior Recital (half recital)	0
MUSAP:xxx Applied Music	2
MUSEN:120 Concert Choir	1
MUSIC:456 Advanced Conducting: Choral	2
MUSIC:441 Junior High/Middle School Choral Methods	2
MUSIC:445 Equity and Excellence in Music Education	3

Hours	10
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### 5th Year

#### Fall Semester

MUSIC:492 Student Teaching Colloquium	3
EDSE:495 Student Teaching: Secondary Education	6-11
Hours	9-14

Total Hours	103-108
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<sup>1</sup> ODD Years

<sup>2</sup> EVEN Years

<sup>3</sup> Choral Music Education majors will take either Trumpet & Horn Methods **OR** Clarinet & Saxophone Methods.

## Music Jazz, Minor

## Minor in Music - Jazz (C50007M)

Program Contact

Dr. Marc Reed  
 Director  
 School of Music  
 330-972-5761  
 marcreeed@uakron.edu

The following information has official approval of the **School of Music** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Music - Jazz" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Electives		25
Total Hours		25

## Electives

Code	Title	Hours
<i>Select 13 credits from the following:</i>		13
MUSIC:210	Jazz Improvisation I	
MUSIC:211	Jazz Improvisation II	
MUSIC:212	Music Industry: A Survey of Practices & Opportunities	
MUSIC:307	Techniques of Jazz Ensemble Performance & Direction	
MUSIC:308	History & Literature of Jazz	
MUSIC:497	Independent Study in Music	
<i>Select 4 credits of Jazz Ensemble:<sup>1</sup></i>		4
MUSEN:115	Jazz Ensemble	
<i>Select 8 credits of Applied Jazz Study:</i>		8
MUSAP:1xx	Applied Jazz Study Elective	
MUSAP:1xx	Applied Jazz Study Elective	
MUSAP:1xx	Applied Jazz Study Elective	
MUSAP:1xx	Applied Jazz Study Elective	
Total Hours		25

<sup>1</sup> Students need to complete 4 credits for course MUSEN:115 Jazz Ensemble

## Music Performance, Piano Accompanying, BM

### Bachelor of Music, Piano Performance Accompanying (C50107BM)

More on the Music, Piano Performance Accompanying major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program includes intensive private study in piano performance and accompaniment in preparation for a performing or private teaching career or as preparation for further study at the graduate level.

## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Music Core		32
Applied Music and Performance Courses		43
Additional Required Music Courses		8
Music Electivee		1
Foreign Language Reading Requirement		2-12
Total Hours		120-130

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		

Domestic Diversity
Global Diversity
<b>Integrated and Applied Learning</b>
<i>Select one class from one of the following subcategories:</i>
Complex Issues Facing Society
Capstone
<i>Review the General Education Requirements page for detailed course listings.</i>
Total Hours

34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSEN:114	Keyboard Ensemble (eight semesters)	1
MUSEN:xxx	Chamber Music Ensemble	1
MUSAP:24	Voice	2-4
MUSIC:457	Senior Recital (full recital to include solo, accompanied, and chamber works)	0
<i>Complete the following four courses for a minimum of eight credit hours each:</i>		32

MUSAP:125	Piano
MUSAP:225	Piano
MUSAP:325	Piano
MUSAP:425	Piano
Total Hours	36-38

## Additional Required Music Courses

Code	Title	Hours
MUSIC:361	Conducting	2
MUSIC:366	Song Literature I	2
MUSIC:371	Analytical Techniques	2
MUSIC:471	Counterpoint	2-3
or MUSIC:353	Electronic Music	
Total Hours		8-9

## Music Electives

Code	Title	Hours
<b>Complete one credit</b>		<b>1</b>
MUSIC:xxx		
The following courses do not satisfy this requirement:		
MUSIC:101	Introduction to Music Theory	
MUSIC:104	Class Piano I	
MUSIC:105	Class Piano II	
Total Hours		1

## Foreign Language Reading Requirement

Code	Title	Hours
<b>Complete one of the following options:</b>		<b>2-12</b>
MUSIC:265	Diction for Singers I	
or MUSIC:266	Diction for Singers II	
-or-		
FREN:101	Beginning French I	
& GERM:101	and Beginning German I	
& ITAL:101	and Beginning Italian I	
Total Hours		2-12

## Recommended Sequence If placed into Intro to Music Theory

1st Year		Hours
<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:125	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		13-15
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0

MUSAP:125	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		15-17
<b>Summer Semester</b>		
MUSIC:122	Theory and Musicianship II	4
Hours		4
Total Hours		32-36

## If placed into Theory & Musicianship I

<b>1st Year</b>		
<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:125	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		15-17
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:125	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		15-17
Total Hours		30-34

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

<b>2nd Year</b>		
<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:225	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
	Social Science Requirement	3
Hours		15-17
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:225	Piano	2-4

MUSEN:114	Keyboard Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
	Natural Science with Lab Requirement	4
Hours		16-18

### 3rd Year

<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:325	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:371	Analytical Techniques	2
MUSIC:265	Diction for Singers I	2-4
or GERM:101	or Beginning German I	
or ITAL:101	or Beginning Italian I	
	Arts/Humanities Requirement	3
	Natural Science Requirement	3
Hours		13-17

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:325	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSAP:24	Voice	2-4
MUSIC:366	Song Literature I <sup>1</sup>	2
or MUSIC:367	or Song Literature II	
MUSIC:266	Diction for Singers II (only if Diction for Singers I is not selected)	2-4
or FREN:101	or Beginning French I	
	Arts/Humanities Requirement	3
Hours		12-18

### 4th Year

<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:425	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:453	Music Software Survey and Use	2
GERM:101	Beginning German I <sup>3</sup>	4
or ITAL:101	or Beginning Italian I	
	Social Science Requirement	3
Hours		12-14

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:425	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSEN:xxx	Chamber Music Ensemble	1
MUSIC:361	Conducting	2
MUSIC:471	Counterpoint	2-3
or MUSIC:353	or Electronic Music	
MUSIC:xxx	Music Elective	1

Integrated and Applied Learning Requirement	3
Hours	12-15
<b>Total Hours</b>	<b>80-99</b>

- <sup>1</sup> ODD Years  
<sup>2</sup> EVEN Years  
<sup>3</sup> Do not take if opting for Diction I & II

## Music with Business Cognate, BA Bachelor of Arts in Music with Business Cognate (C50011BA)

Music training has grown to encompass more than performing and teaching. The BA in Music degree with Business Cognate prepares students to succeed in an increasingly business-savvy community of artists and musicians. Students will gain a diverse skill-set including skills in areas such as business technology, grant writing, and non-profit management.

### Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	12
	Business Courses	9
	Free Electives	13
	Additional Credits for Graduation *	20
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3

MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar <sup>1</sup>	0
MUSEN:xxx	Major Conducted Ensemble <sup>2</sup>	4
MUSAP:1xx	Applied Music Primary Instrument	4
MUSAP:2xx	Applied Music Primary Instrument <sup>3</sup>	4
Total Hours		12

<sup>1</sup> Student must successfully complete four semesters of MUSIC:157.

<sup>2</sup> Students must complete the four credits for the major conducted ensemble requirement in 4 separate semesters.

<sup>3</sup> Completion of 200 level required prior to graduation.

## Business Courses

Code	Title	Hours
<b>Students must complete a minimum of nine credits from any of the following business minors: 1) Entrepreneurship, 2) Business Administration for Non-Business majors, 3) Pre-MBA Minor for Non-Business majors, 4) Sales Management, 5) Consumer Marketing.</b>		<b>9</b>
Total Hours		9

## Free Electives

Code	Title	Hours
Complete 13 credits of free electives		13
Total Hours		13

## Recommended Sequence

### If placed into Intro to Music Theory

1st Year		
Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:xxx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		13

Spring Semester		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:xxx	Major Conducted Ensemble	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2

ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		17

### Summer Semester

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		36

## If placed into Theory & Musicianship I

### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:xxx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		17

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	2
MUSEN:xxx	Major Conducted Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		15
Total Hours		32

## ALL

### 2nd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	2
MUSEN:xxx	Major Conducted Ensemble	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
	Social Science Requirement	3
	Arts/Humanities Requirement	3
Hours		15

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
	Natural Science with Lab Requirement	4



Arts/Humanities Requirement	3
Hours	16
<b>3rd Year</b>	
<b>Fall Semester</b>	
MUSIC:351 Music History I	3
xxxx:101 Beginning Foreign Language 1	4
Business Cognate Elective	3
Natural Science Requirement	3
Hours	13
<b>Spring Semester</b>	
MUSIC:352 Music History II	3
xxxx:102 Beginning Foreign Language II	4
Business Cognate Elective	3
Social Science Requirement	3
Upper-level (300/400) electives <sup>3</sup>	3
Hours	16
<b>4th Year</b>	
<b>Fall Semester</b>	
MUSIC:453 Music Software Survey and Use	2
xxxx:201 Intermediate Foreign Language I	3
Business Cognate Elective	3
Global Diversity Requirement	3
Upper-level (300/400) electives <sup>3</sup>	4
Hours	15
<b>Spring Semester</b>	
MUSIC:xxx Music Electives	3
xxxx:202 Intermediate Foreign Language II	3
Integrated and Applied Learning Requirement	3
Upper-level (300/400) electives <sup>3</sup>	6
Hours	15
Total Hours	90

<sup>1</sup> Credits earned for MUSIC:101, 104, and 105 are not counted toward the degree program total; these classes are required or excused per entrance placement exam.

<sup>2</sup> Completion of both MUSIC:154 & 155 satisfies a General Education Arts requirement. Completion of MUSIC:155 also satisfies the requirement for a Domestic Diversity course.

<sup>3</sup> A minimum of 40 upper-level (300/400) credits are necessary for completion of this degree. Credits from MUSIC::221, 222, 261, and 262 and any MUSEN:xxx ensembles taken as a Jr./Sr. (60+ accumulated credits) count toward satisfying this requirement.

## Music, BA

### Bachelor of Arts in Music (C50001BA)

More on the Music major (<https://www.uakron.edu/music/degrees/>)

The Bachelor of Arts in Music program of study is designed to offer students a broad-based liberal arts degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Arts program is intended as a cultural course or as a

preparation for graduate study but not as preparation for a performance or teaching career.

## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirement	14
	Music Core	32
	Applied Music and Performance Courses	12
	Music Electives	3
	Free Electives	22
	Additional Credits for Graduation <sup>*</sup>	3
	Total Hours	120

<sup>\*</sup> Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

<b>Academic Foundations</b>	<b>12</b>
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*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

**Breadth of Knowledge 22**

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

**Diversity**

Domestic Diversity

Global Diversity

**Integrated and Applied Learning**

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## College of Arts & Sciences Requirements

**Code Title Hours**

**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

*Foreign Language 14*

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SPLA:222 (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Music Core

**Code Title Hours**

MUSIC:101 Introduction to Music Theory <sup>1</sup>

MUSIC:104 Class Piano I <sup>1</sup>

MUSIC:105 Class Piano II <sup>1</sup>

MUSIC:106 Music Orientation 0

MUSIC:121 Theory and Musicianship I 4

MUSIC:122 Theory and Musicianship II 4

MUSIC:154 Music Literature I 2

MUSIC:155 Music Literature II 2

MUSIC:221 Theory and Musicianship III 4

MUSIC:222 Theory and Musicianship IV 4

MUSIC:261 Keyboard Harmony I 2

MUSIC:262 Keyboard Harmony II 2

MUSIC:351 Music History I 3

MUSIC:352 Music History II 3

MUSIC:453 Music Software Survey and Use 2

Total Hours 32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

**Code Title Hours**

MUSIC:157 School of Music Performance Seminar (four semesters) 0

MUSEN:xxx Major Conducted Ensemble (four semesters) <sup>1</sup> 4

MUSAP:1xx Applied Music Primary Instrument 4

MUSAP:2xx Applied Music Primary Instrument <sup>2</sup> 4

Total Hours 12

<sup>1</sup> Students must complete the 4 credits for the ensemble requirement in 4 separate semesters.

<sup>2</sup> Completion of 200 level required prior to graduation.

## Music Electives

**Code Title Hours**

MUSIC:xxx Music Electives 3

Total Hours 3

## Free Electives

**Code Title Hours**

**Complete 22 credits of free electives 22**

Total Hours 22

## Recommended Sequence If placed into Intro to Music Theory

### 1st Year

**Fall Semester Hours**

MUSIC:157 School of Music Performance Seminar 0

MUSAP:1xx Applied Music 2

MUSEN:xxx Major Conducted Ensemble 1

MUSIC:106 Music Orientation 0

MUSIC:101 Introduction to Music Theory 2

MUSIC:154 Music Literature I 2

Writing Requirement 3

Mathematics, Statistics and Logic Requirement 3

Hours 13

### Spring Semester

MUSIC:157 School of Music Performance Seminar 0

MUSAP:1xx Applied Music 2

MUSEN:xxx Major Conducted Ensemble 1

MUSIC:121 Theory and Musicianship I 4

MUSIC:104 Class Piano I <sup>1</sup> 2

MUSIC:155 Music Literature II 2

ENGL:112 English Composition II 3

Speaking Requirement	3
Hours	17
<b>Summer Semester</b>	
MUSIC:122 Theory and Musicianship II	4
MUSIC:105 Class Piano II <sup>1</sup>	2
Hours	6
Total Hours	36

## If placed into Theory & Musicianship I

<b>1st Year</b>	
<b>Fall Semester</b>	
MUSIC:157 School of Music Performance Seminar	0
MUSAP:1xx Applied Music	2
MUSEN:xxx Major Conducted Ensemble	1
MUSIC:106 Music Orientation	0
MUSIC:121 Theory and Musicianship I	4
MUSIC:104 Class Piano I <sup>1</sup>	2
MUSIC:154 Music Literature I	2
Writing Requirement	3
Mathematics, Statistics and Logic Requirement	3
Hours	17

<b>Spring Semester</b>	
MUSIC:157 School of Music Performance Seminar	0
MUSAP:1xx Applied Music	2
MUSEN:xxx Major Conducted Ensemble	1
MUSIC:122 Theory and Musicianship II	4
MUSIC:105 Class Piano II <sup>1</sup>	2
MUSIC:155 Music Literature II <sup>2</sup>	2
ENGL:112 English Composition II	3
Speaking Requirement	3
Hours	17
Total Hours	34

## ALL

<b>2nd Year</b>	
<b>Fall Semester</b>	
MUSIC:157 School of Music Performance Seminar	0
MUSAP:2xx Applied Music	2
MUSEN:xxx Major Conducted Ensemble	1
MUSIC:221 Theory and Musicianship III	4
MUSIC:261 Keyboard Harmony I	2
Social Science Requirement	3
Arts/Humanities Requirement	3
Hours	15

<b>Spring Semester</b>	
MUSIC:157 School of Music Performance Seminar	0
MUSAP:2xx Applied Music	2
MUSEN:1xx Major Conducted Ensemble	1
MUSIC:222 Theory and Musicianship IV	4
MUSIC:262 Keyboard Harmony II	2
Natural Science with Lab Requirement	4

Arts/Humanities Requirement	3
Hours	16

<b>3rd Year</b>	
<b>Fall Semester</b>	
MUSIC:351 Music History I	3
xxxx:101 Beginning Foreign Language 1	4
Natural Science Requirement	3
Upper-level (300/400) electives <sup>3</sup>	3
Hours	13

<b>Spring Semester</b>	
MUSIC:352 Music History II	3
xxxx:102 Beginning Foreign Language II	4
Social Science Requirement	3
Upper-level (300/400) electives <sup>3</sup>	6
Hours	16

<b>4th Year</b>	
<b>Fall Semester</b>	
MUSIC:453 Music Software Survey and Use	2
xxxx:201 Intermediate Foreign Language I	3
Global Diversity Requirement	3
Upper-level (300/400) electives <sup>3</sup>	7
Hours	15

<b>Spring Semester</b>	
MUSIC:xxx Music Electives	3
xxxx:202 Intermediate Foreign Language II	3
Integrated and Applied Learning Requirement	3
Upper-level (300/400) electives <sup>3</sup>	6
Hours	15
Total Hours	90

<sup>1</sup> Credits earned for MUSIC:101, 104, and 105 are not counted toward the degree program total; these classes are required or excused per entrance placement exam.

<sup>2</sup> Completion of both MUSIC:154 & 155 satisfies a General Education Arts requirement. Completion of MUSIC:155 also satisfies the requirement for a Domestic Diversity course.

<sup>3</sup> A minimum of 40 upper-level (300/400) credits are necessary for completion of this degree. Credits from MUSIC:221, 222, 261, and 262 and any MUSEN:xxx ensembles taken as a Jr./Sr. (60+ accumulated credits) count toward satisfying this requirement.

## Music, Brass Performance, BM Bachelor of Music, Brass Performance (C50108BM)

More on the Music, Brass Performance major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program includes intensive private study in brass performance in preparation for a

performing or private teaching career or as preparation for further study at the graduate level.

## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	41
	Additional Required Music Courses	12-13
	Music Electives	1
	<b>Total Hours</b>	<b>120-121</b>

## General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

<b>Academic Foundations</b>		<b>12</b>
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*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

<b>Breadth of Knowledge</b>		<b>22</b>
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*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

<b>Diversity</b>		
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Domestic Diversity

Global Diversity

<b>Integrated and Applied Learning</b>		
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*Select one class from one of the following subcategories:*

Complex Issues Facing Society

### Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours	34
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## College of Arts & Sciences Requirement

Code	Title	Hours
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**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
<b>Total Hours</b>		<b>32</b>

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSAP:1xx	Applied Music Primary Instrument	8
MUSAP:2xx	Applied Music Primary Instrument	8
MUSAP:3xx	Applied Music Primary Instrument	8
MUSAP:4xx	Applied Music Primary Instrument <sup>1</sup>	8
MUSIC:457	Senior Recital (full recital)	0
MUSEN:xxx	Chamber Music Ensemble	1
<i>Complete a minimum of eight credits from the following <sup>2</sup></i>		<b>8</b>
MUSEN:103	University Symphony: Orchestra	
MUSEN:104	Wind Symphony	
MUSEN:125	Symphony Band	

MUSEN:128	Concert Band	
Total Hours		41

<sup>1</sup> Completion of 400 level required prior to graduation.

<sup>2</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:415		
MUSIC:454	Orchestration	2
MUSIC:471	Counterpoint	2-3
or MUSIC:353	Electronic Music	
Total Hours		10-11

## Music Electives

Code	Title	Hours
<b>Complete one credit</b>		<b>1</b>
MUSIC:xxx		
<i>The following courses do not satisfy this requirement:</i>		
MUSIC:101	Introduction to Music Theory	
MUSIC:104	Class Piano I	
MUSIC:105	Class Piano II	
Total Hours		1

## Recommended Sequence

### If placed into Intro to Music Theory

#### 1st Year

Fall Semester	Hours	
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		15

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		19

#### Summer Semester

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II	2
Hours		6
Total Hours		40

### If placed into Theory & Musicianship I

#### 1st Year

Fall Semester	Hours	
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		19

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		19
Total Hours		38

## ALL

#### 2nd Year

Fall Semester	Hours	
MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
	Social Science Requirement	3
Hours		17

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
	Natural Science with Lab Requirement	4
Hours		18

**3rd Year****Fall Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:371	Analytical Techniques	2
MUSIC:454	Orchestration	2
	Arts/Humanities Requirement	3
	Social Science Requirement	3
	Hours	15

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:415	<sup>1</sup>	1
	Natural Science Requirement	3
	Hours	10

**4th Year****Fall Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:4xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:361	Conducting	2
MUSIC:453	Music Software Survey and Use	2
	Arts/Humanities Requirement	3
	Hours	12

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:4xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:xxx	Chamber Music Ensemble	1
MUSIC:471	Counterpoint	2-3
or MUSIC:353	or Electronic Music	
MUSIC:415	<sup>1</sup>	1
MUSIC:xxx	Music Elective	1
	Integrated and Applied Learning Requirement	3
	Hours	12-13
	Total Hours	84-85

<sup>1</sup> ODD Years

## Music, Composition, BM

### Bachelor of Music, Composition (C50003BM)

More on the Music, Composition major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music with an emphasis on the highest standards of musical

composition. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program in Composition includes intensive private study in traditional and contemporary compositional techniques in preparation for varied careers involving the creation and production of original music or as preparation for further study at the graduate level.

## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

Before the start of the third year: (1) a portfolio of three substantial works in contrasting genres submitted to the composition faculty must meet an acceptable standard for the pursuit of an undergraduate degree in composition; (2) An average of B- or higher must be achieved in Theory and Musicianship I, II, III, and IV

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	37
	Additional Required Music Courses	13
	Music Electives	4
	Total Hours	120

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	

	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>

Arts/Humanities: 9 credit hours

Natural Sciences: 7 credit hours

Social Sciences: 6 credit hours

#### Diversity

Domestic Diversity

Global Diversity

#### Integrated and Applied Learning

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## College of Arts & Sciences Requirement

Code Title Hours

Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSEN:1xx	Major Conducted Ensemble <sup>1</sup>	8
MUSEN:1xx	Chamber Music Ensemble	1
MUSAP:1xx	Applied Music Primary Instrument	4

MUSAP:2xx	Applied Music Primary Instrument <sup>2</sup>	4
MUSAP:242	Composition	4
MUSAP:342	Composition	8
MUSAP:442	Composition <sup>3</sup>	8
MUSIC:457	Senior Recital (full recital)	0
Total Hours		37

<sup>1</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

<sup>2</sup> Completion of 200 level required prior to graduation.

<sup>3</sup> Completion of 400 level required prior to graduation.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:353	Electronic Music	3
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:454	Orchestration	2
MUSIC:471	Counterpoint	2
Total Hours		13

## Music Electives

Code	Title	Hours
<b>Complete four credits</b>		<b>4</b>
MUSIC:xxx		
<i>The following courses do not satisfy this requirement:</i>		
MUSIC:101	Introduction to Music Theory	
MUSIC:104	Class Piano I	
MUSIC:105	Class Piano II	
Total Hours		4

## Recommended Sequence If placed into Intro to Music Theory

1st Year		Hours
<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSEN:1xx	Major Conducted Ensemble	1
MUSAP:142	Composition <sup>1</sup>	2-4
MUSAP:1xx	Applied Music	2
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>2</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Hours	12-14

Spring Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:142	Ear Training/Sight Reading II <sup>1</sup>	1
MUSAP:1xx	Applied Music	2
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>2</sup>	2

MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
Hours		15
<b>Summer Semester</b>		
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>2</sup>	2
Hours		6
Total Hours		33-35

## If placed into Theory & Musicianship I

<b>1st Year</b>		
<b>Fall Semester</b>		<b>Hours</b>
MUSIC:157	School of Music Performance Seminar	0
MUSAP:142	Composition <sup>1</sup>	2-4
MUSAP:1xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>2</sup>	2
MUSIC:154	Music Literature I	2
Writing Requirement		3
Hours		16-18
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:142	Composition <sup>1</sup>	2-4
MUSAP:1xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>2</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
Hours		16-18
Total Hours		32-36

<sup>1</sup> Recommended but not required for degree completion.

<sup>2</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

<b>2nd Year</b>		
<b>Fall Semester</b>		<b>Hours</b>
MUSIC:157	School of Music Performance Seminar	0
MUSAP:242	Composition	2-4
MUSAP:2xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
Mathematics, Statistics and Logic Requirement		3
Hours		17-19
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0

MUSAP:242	Composition	2-4
MUSAP:2xx	Applied Music	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
Speaking Requirement		3
Hours		17-19

### 3rd Year

<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:342	Composition	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:371	Analytical Techniques	2
MUSIC:454	Orchestration	2
Social Science Requirement		3
Natural Science with Lab Requirement		4
Hours		14-16

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSIC:342	Group Vocal Techniques for Choral Music Education	2
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:1xx	Chamber Music Ensemble	1
MUSIC:353	Electronic Music	3
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:xxx	Music Elective	2
Natural Science Requirement		3
Hours		14

### 4th Year

<b>Fall Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:442	Composition	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:453	Music Software Survey and Use	2
MUSIC:361	Conducting	2
Arts/Humanities Requirement		3
Social Science Requirement		3
Hours		13-15

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:442	Composition	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:471	Counterpoint	2
MUSIC:xxx	Music Elective	2
Arts/Humanities Requirement		3
Integrated and Applied Learning Requirement		3
Hours		13-15
Total Hours		88-98



# Music, Guitar Performance, BM

## Bachelor of Music, Guitar Performance (C50106BM)

More of the Music, Guitar Performance major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program includes intensive private study in guitar performance in preparation for a performing or private teaching career or as preparation for further study at the graduate level.

### Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	41
	Additional Required Music Courses	12-13
	Music Electives	1
	<b>Total Hours</b>	<b>120-121</b>

### General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	

*Writing: 6 credit hours*

<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

### College of Arts & Sciences Requirement

Code	Title	Hours
	<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>	
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

### Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
<b>Total Hours</b>		<b>32</b>

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

### Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSIC:457	Senior Recital (full recital)	0

MUSEN:xxx	Chamber Music Ensemble	1
<b>Complete 8 credits of the following course:</b> <sup>1</sup>		<b>8</b>
MUSEN:116	Guitar Ensemble	
<b>Complete one of the following groups of courses for a total of 32 credits:</b>		<b>32</b>
<i>Group 1</i>		
MUSAP:122	Classical Guitar	
MUSAP:222	Classical Guitar	
MUSAP:322	Classical Guitar	
MUSAP:422	Classical Guitar <sup>2</sup>	
<i>Group 2</i>		
MUSAP:162	Jazz Guitar	
MUSAP:262	Jazz Guitar	
MUSAP:362	Jazz Guitar	
MUSAP:462	Jazz Guitar <sup>2</sup>	
<i>Group 3</i>		
MUSAP:163	Jazz Electric Bass	
MUSAP:263	Jazz Electric Bass	
MUSAP:363	Jazz Electric Bass	
MUSAP:463	Jazz Electric Bass <sup>2</sup>	
Total Hours		41

<sup>1</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

<sup>2</sup> Completion of 400 level required prior to graduation.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:259	Fretboard Harmony	2
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:467	Guitar Pedagogy	2
MUSIC:468	Guitar Arranging	2
MUSIC:471	Counterpoint	2-3
or MUSIC:353	Electronic Music	
Total Hours		12-13

## Music Electives

Code	Title	Hours
<b>Complete one credit</b> <sup>1</sup>		<b>1</b>
MUSIC:xxx		
<i>The following courses do not satisfy this requirement:</i>		
MUSIC:101	Introduction to Music Theory	
MUSIC:104	Class Piano I	
MUSIC:105	Class Piano II	
Total Hours		1

<sup>1</sup> If MUSIC:471 is applied to this requirement, the total number of required credits increases to four.

## Recommended Sequence If placed into Intro to Music Theory

### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:116	Guitar Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematic, Statistics and Logic Requirement	3
Hours		15

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:116	Guitar Ensemble	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		19

### Summer Semester

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		40

## If placed into Theory & Musicianship I

### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:116	Guitar Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		19

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:116	Guitar Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3

Speaking Requirement	3
Hours	19
Total Hours	38

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

### 2nd Year

#### Fall Semester

	Hours
MUSIC:157 School of Music Performance Seminar	0
MUSAP:2xx Applied Music	4
MUSEN:116 Guitar Ensemble	1
MUSIC:221 Theory and Musicianship III	4
MUSIC:261 Keyboard Harmony I	2
MUSIC:351 Music History I	3
Social Science Requirement	3
Hours	17

#### Spring Semester

MUSIC:157 School of Music Performance Seminar	0
MUSAP:2xx Applied Music	4
MUSEN:116 Guitar Ensemble	1
MUSIC:222 Theory and Musicianship IV	4
MUSIC:259 Fretboard Harmony <sup>1</sup>	2
MUSIC:352 Music History II	3
Natural Science with Lab Requirement	4
Hours	18

### 3rd Year

#### Fall Semester

MUSIC:157 School of Music Performance Seminar	0
MUSAP:3xx Applied Music	4
MUSEN:116 Guitar Ensemble	1
MUSIC:371 Analytical Techniques	2
MUSIC:467 Guitar Pedagogy <sup>1</sup>	2
Arts/Humanities Requirement	3
Social Science Requirement	3
Hours	15

#### Spring Semester

MUSIC:157 School of Music Performance Seminar	0
MUSAP:3xx Applied Music	4
MUSIC:116	
MUSIC:259 Fretboard Harmony <sup>1</sup> or MUSIC:468 or Guitar Arranging	2
MUSIC:361 Conducting	2
Arts/Humanities Requirement	3
Natural Science Requirement	3
Hours	14

### 4th Year

#### Fall Semester

MUSIC:157 School of Music Performance Seminar	0
MUSAP:4xx Applied Music	4
MUSEN:116 Guitar Ensemble	1
MUSEN:xxx Chamber Music Ensemble	1

MUSIC:467 Guitar Pedagogy <sup>1</sup>	
MUSIC:453 Music Software Survey and Use	2
Hours	8

#### Spring Semester

MUSIC:157 School of Music Performance Seminar	0
MUSIC:457 Senior Recital	0
MUSAP:4xx Applied Music	4
MUSEN:116 Guitar Ensemble	1
MUSIC:471 Counterpoint or MUSIC:353 or Electronic Music	2-3
MUSIC:468 Guitar Arranging <sup>2</sup>	2
MUSIC:xxx Music Electives	1
Integrated and Applied Learning Requirement	3
Hours	13-14
Total Hours	85-86

<sup>1</sup> ODD Years

<sup>2</sup> EVEN Years

## Music, Jazz Studies, BM

### Bachelor of Music, Jazz Studies (C50007BM)

More on the Music, Jazz Studies major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program in Jazz is a performance degree that includes intensive study in jazz performance techniques as well as courses in jazz history and literature, arranging, and ensemble direction in preparation for a performing career or as preparation for further study at the graduate level.

### Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing*

*courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Music Core		32
Applied Music and Performance Courses		28
Additional Required Music Courses		8
Additional Required Jazz Courses		18-19
Music Electives		6
Additional Major Electives *		6-5
Total Hours		132

\* This major requires a minimum of 132 completed credit hours.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

Code	Title	Hours
Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSIC:457	Senior Recital (full recital)	0
MUSEN:xxx	Chamber Music Ensemble	1
<b>Complete four credits of the following:</b>		<b>4</b>
MUSEN:1xx	Major Conducted Ensemble <sup>4</sup>	
<b>Complete eight credits of each of the following:</b>		<b>24</b>
MUSEN:115	Jazz Ensemble	
MUSAP:1xx	Applied Music Primary Instrument	
MUSAP:2xx	Applied Music Primary Instrument <sup>1,2,3</sup>	
Total Hours		29

<sup>1</sup> Completion of 200 level required prior to graduation.

<sup>2</sup> Saxophone majors must complete the 100 level of Applied Flute and Clarinet prior to graduation.

<sup>3</sup> Electric Guitar majors must complete the 200 level of Applied Classical Guitar prior to graduation.

<sup>4</sup> Students must complete the 4 credits for the ensemble requirement in 4 separate semesters.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:454	Orchestration	2
Total Hours		6

## Additional Required Jazz Courses

Code	Title	Hours
MUSIC:210	Jazz Improvisation I	2
MUSIC:211	Jazz Improvisation II	2
MUSIC:212	Music Industry: A Survey of Practices & Opportunities	2
MUSIC:307	Techniques of Jazz Ensemble Performance & Direction	2
MUSIC:308	History & Literature of Jazz	3
MUSIC:309	Jazz Keyboard Techniques	2
MUSIC:310	Jazz Improvisation III	2
MUSIC:311	Jazz Improvisation IV	2
MUSIC:407	Jazz Arranging & Scoring	2
Total Hours		19

## Recommended Sequence

### If placed into Intro to Music Theory

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music Primary Instrument	4
MUSEN:xxx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSEN:115	Jazz Ensemble	1
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		16

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music Primary Instrument	4
MUSEN:xxx	Major Conducted Ensemble	1
MUSEN:115	Jazz Ensemble	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		20

#### Summer Semester

MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:122	Theory and Musicianship II	4
Hours		6
Total Hours		42

### If placed into Theory & Musicianship I

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music Primary Instrument	4

MUSEN:xxx	Major Conducted Ensemble	1
MUSEN:115	Jazz Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I <sup>1</sup>	4
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		18

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music Primary Instrument	4
MUSEN:xxx	Major Conducted Ensemble	1
MUSEN:115	Jazz Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		20
Total Hours		38

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

#### 2nd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:xxx	Major Conducted Ensemble	1
MUSEN:115	Jazz Ensemble	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
	Arts/Humanities Requirement	3
Hours		18

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:115	Jazz Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
	Natural Science with Lab Requirement	4
Hours		19

#### 3rd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:36	Flute or Piccolo (Saxophone Majors Only)	
MUSAP:38	Clarinet or Bass Clarinet (Saxophone Majors Only)	

MUSAP:22	Classical Guitar (Guitar Majors Only)	
MUSEN:115	Jazz Ensemble	1
MUSIC:210	Jazz Improvisation I	2
MUSIC:371	Analytical Techniques	2
MUSIC:454	Orchestration	2
MUSIC:212 or MUSIC:407	Music Industry: A Survey of Practices & Opportunities or Jazz Arranging & Scoring	2
	Social Science Requirement	3
	Arts/Humanities Requirement	3
	Hours	15

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:36	Flute or Piccolo (Saxophone Majors Only)	
MUSAP:38	Clarinet or Bass Clarinet (Saxophone Majors Only)	
MUSAP:22	Classical Guitar (Guitar Majors Only)	
MUSEN:115	Jazz Ensemble	1
MUSIC:211	Jazz Improvisation II	2
MUSIC:308 or MUSIC:309	History & Literature of Jazz or Jazz Keyboard Techniques	2-3
MUSIC:361	Conducting	2
	Social Science Requirement	3
	Natural Science Requirement	3
	Hours	13-14

**4th Year****Fall Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSEN:xxx	Chamber Music Ensemble	1
MUSAP:136	Flute or Piccolo (Saxophone Majors Only)	
MUSAP:138	Clarinet or Bass Clarinet (Saxophone Majors Only)	
MUSAP:122	Classical Guitar (Guitar Majors Only)	
MUSEN:115	Jazz Ensemble	1
MUSIC:310	Jazz Improvisation III	2
MUSIC:407 or MUSIC:212	Jazz Arranging & Scoring or Music Industry: A Survey of Practices & Opportunities	2
MUSIC:453	Music Software Survey and Use	2
	Hours	8

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:136	Flute or Piccolo (Saxophone Majors Only)	
MUSAP:138	Clarinet or Bass Clarinet (Saxophone Majors Only)	
MUSAP:122	Classical Guitar (Guitar Majors Only)	
MUSEN:115	Jazz Ensemble	1
MUSEN:311		
MUSIC:307	Techniques of Jazz Ensemble Performance & Direction	2
MUSIC:309 or MUSIC:308	Jazz Keyboard Techniques or History & Literature of Jazz	2-3

Integrated and Applied Learning Requirement	3
Hours	8-9
Total Hours	81-83

## Music, Percussion Performance, BM Bachelor of Music, Percussion Performance (C50105BM)

More on the Music, Percussion Performance major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program includes intensive private study in percussion performance in preparation for a performing or private teaching career or as preparation for further study at the graduate level.

### Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	41
	Additional Required Music Courses	12-13
	Music Electives	1
	Total Hours	120-121

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

Code	Title	Hours
Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3

MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSIC:457	Senior Recital (full recital)	0
MUSEN:xxx	Chamber Music Ensemble	1
<b>Complete eight credits of each of the following:</b>		<b>32</b>
MUSAP:121	Percussion	
MUSAP:221	Percussion	
MUSAP:321	Percussion	
MUSAP:421	Percussion	
<b>Complete a minimum of eight credits from the following: <sup>2</sup></b>		<b>8</b>
MUSEN:103	University Symphony: Orchestra	
MUSEN:104	Wind Symphony	
MUSEN:125	Symphony Band	
MUSEN:128	Concert Band	
Total Hours		41

<sup>1</sup> Completion of 400 level required prior to graduation.

<sup>2</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters

## Additional Required Music Courses

Code	Title	Hours
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:432	Teaching & Literature: Percussion Instruments	2
MUSIC:454	Orchestration	2
MUSIC:471	Counterpoint	2-3
or MUSIC:353	Electronic Music	
Total Hours		12-13

## Music Electives

Code	Title	Hours
<b>Complete one credit</b>		
MUSIC:xxx		
<i>The following courses do not satisfy this requirement:</i>		
MUSIC:101	Introduction to Music Theory	
MUSIC:104	Class Piano I	
MUSIC:105	Class Piano II	
Total Hours		1

## Recommended Sequence

### If placed into Intro to Music Theory

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:121	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		13-15

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:121	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		17-19

#### Summer Semester

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		36-40

### If placed into Theory & Musicianship I

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:121	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		17-19

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:121	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3

Speaking Requirement	3
Hours	17-19
Total Hours	34-38

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

#### 2nd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:221	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
	Social Science Requirement	3
Hours		15-17

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:221	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
	Natural Science with Lab Requirement	4
Hours		16-18

#### 3rd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:321	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:371	Analytical Techniques	2
MUSIC:454	Orchestration	2
MUSIC:432	Teaching & Literature: Percussion Instruments <sup>1</sup>	2
	Arts/Humanities Requirement	3
Hours		12-14

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:321	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:372	Post-Tonal Analytic Techniques	2
	Social Science Requirement	3
	Natural Science Requirement	3
Hours		11-13

#### 4th Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:421	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:361	Conducting	2
MUSIC:453	Music Software Survey and Use	2



MUSIC:432	Teaching & Literature: Percussion Instruments <sup>1</sup>	
	Arts/Humanities Requirement	3
	Hours	10-12
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:421	Percussion	2-4
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:xxx	Chamber Music Ensemble	1
MUSIC:471	Counterpoint	2-3
	or MUSIC:353 or Electronic Music	
MUSIC:xxx	Music Electives	1
	Integrated and Applied Learning Requirement	3
	Hours	10-13
	Total Hours	74-87

<sup>1</sup> EVEN Years

## Music, Piano Performance, BM Bachelor of Music, Piano Performance (C50100BM)

More on the Music, Piano Performance major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program includes intensive private study in piano performance in preparation for a performing or private teaching career or as preparation for further study at the graduate level.

### Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	41
	Additional Required Music Courses	10
	Music Electives	3
	Total Hours	120

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	Total Hours	34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4

MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSIC:457	Senior Recital (full chamber music recital)	0
musen:xxx	Chamber Music Ensemble	1
<b>Complete eight credits of each of the following:</b>		<b>40</b>
MUSEN:114	Keyboard Ensemble	
MUSAP:125	Piano	
MUSAP:225	Piano	
MUSAP:325	Piano	
MUSAP:425	Piano <sup>1</sup>	
Total Hours		41

<sup>1</sup> Completion of 400 level required prior to graduation.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:271	Piano Pedagogy & Literature I	2
MUSIC:272	Piano Pedagogy & Literature II	2
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:471	Counterpoint	2-3
or MUSIC:353	Electronic Music	
Total Hours		10-11

## Music Electives

Code	Title	Hours
<b>Complete three credits:</b>		<b>3</b>
MUSIC:xxx		
<i>The following courses do not satisfy this requirement:</i>		
MUSIC:101	Introduction to Music Theory	
MUSIC:104	Class Piano I	
MUSIC:105	Class Piano II	
Total Hours		3

## Recommended Sequence If placed into Intro to Music Theory

1st Year		
Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:125	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		13-15

Spring Semester		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:125	Piano	2-4
MUSEN:114		
MUSIC:121	Theory and Musicianship I	4
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		14-16

Summer Semester		
MUSIC:122	Theory and Musicianship II	4
Hours		4
Total Hours		31-35

## If placed into Theory & Musicianship I

1st Year		
Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:125	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		15-17

Spring Semester		
MUSIC:157	School of Music Performance Seminar	0
MUSAP:125	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		15-17
Total Hours		30-34

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

### 2nd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:225	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
	Social Science Requirement	3
Hours		15-17

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:225	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
	Natural Science Requirement	3
Hours		15-17

### 3rd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:325	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:371	Analytical Techniques	2
MUSIC:271	Piano Pedagogy & Literature I <sup>1</sup>	2
	Social Science Requirement	3
	Arts/Humanities Requirement	3
Hours		11-13

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:325	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:272	Piano Pedagogy & Literature II <sup>2</sup>	2
MUSIC:261	Keyboard Harmony I	2
MUSIC:471 or MUSIC:353	Counterpoint or Electronic Music	2-3
	Natural Science with Lab Requirement	4
Hours		11-14

### 4th Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:425	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSEN:xxx	Chamber Music Ensemble	1
MUSIC:271	Piano Pedagogy & Literature I <sup>1</sup>	2
MUSIC:453	Music Software Survey and Use	2

Arts/Humanities Requirement	3
Hours	11-13

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:425	Piano	2-4
MUSEN:114	Keyboard Ensemble	1
MUSIC:272	Piano Pedagogy & Literature II <sup>2</sup>	2
MUSIC:xxx	Music Electives	3
	Integrated and Applied Learning Requirement	3
Hours		11-13
Total Hours		74-87

<sup>1</sup> EVEN Years

<sup>2</sup> ODD Years

## Music, String Performance, BM Bachelor of Music, String Performance (C50102BM)

More on the Music, String Performance major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program includes intensive private study in string performance in preparation for a performing or private teaching career or as preparation for further study at the graduate level.

## Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		33
Music Core		32
Applied Music and Performance Courses		41
Additional Required Music Courses		13-14
Music Electives		1
Total Hours		120-121

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

Code	Title	Hours
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	

MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSIC:457	Senior Recital (full recital)	0
MUSEN:xxx	Chamber Music Ensemble	1
<b>Complete eight credits of each of the following:</b>		<b>40</b>
MUSEN:103	University Symphony: Orchestra	
MUSAP:1xx	Applied Music Primary Instrument	
MUSAP:2xx	Applied Music Primary Instrument	
MUSAP:3xx	Applied Music Primary Instrument	
MUSAP:4xx	Applied Music Primary Instrument <sup>1</sup>	
Total Hours		41

<sup>1</sup> Completion of 400 level required prior to graduation.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:454	Orchestration	2
MUSIC:434	Teaching & Literature: String Instruments	2
MUSIC:471	Counterpoint	2-3
or MUSIC:353	Electronic Music	
Total Hours		12-13

## Music Electives

Code	Title	Hours
<b>Complete one credit</b>		<b>1</b>
MUSIC:xxx		
<i>The following courses do not satisfy this requirement:</i>		
MUSIC:101	Introduction to Music Theory	
MUSIC:104	Class Piano I	

MUSIC:105	Class Piano II	
Total Hours		1

## Recommended Sequence

### If placed into Intro to Music Theory

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		15

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		19

#### Summer Semester

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		40

### If placed into Theory & Musicianship I

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		19

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:122	Theory and Musicianship II	4

MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		19
Total Hours		38

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

#### 2nd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
	Social Science Requirement	3
Hours		17

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
	Natural Science with Lab Requirement	4
Hours		18

#### 3rd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:371	Analytical Techniques	2
MUSIC:454	Orchestration	2
	Arts/Humanities Requirement	3
	Social Science Requirement	3
Hours		15

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:463	<sup>1</sup>	1
	Natural Science Requirement	3
Hours		10

#### 4th Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:4xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1

MUSIC:361	Conducting	2
MUSIC:453	Music Software Survey and Use	2
	Arts/Humanities Requirement	3
Hours		12
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:4xx	Applied Music	4
MUSEN:103	University Symphony: Orchestra	1
MUSEN:xxx	Chamber Music Ensemble	1
MUSIC:471 or MUSIC:353	Counterpoint or Electronic Music	2-3
MUSIC:434	Teaching & Literature: String Instruments <sup>1</sup>	2
MUSIC:xxx	Music Elective	1
	Integrated and Applied Learning Requirement	3
Hours		14-15
Total Hours		86-87

<sup>1</sup> ODD Years

## Music, Voice Performance, BM Bachelor of Music, Voice Performance (C50109BM)

More on the Music, Voice Performance major (<https://www.uakron.edu/music/degrees/>)

The following information has official approval of **The School of Music** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	42
	Additional Required Music Courses	14
	Foreign Language Requirement	12
	Music Electives	2
	Additional Major Electives *	5
Total Hours		141

\* This major requires a minimum of 141 completed credit hours.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirement

Code	Title	Hours
Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3

MUSIC:453	Music Software Survey and Use	2
Total Hours		32

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSIC:457	Senior Recital (full recital)	0
<b>Complete two credits of the following:</b>		<b>2</b>
MUSEN:108	Opera/Lyric Theater Workshop	
<b>Complete eight credits of each of the following:</b>		<b>40</b>
MUSEN:120	Concert Choir <sup>1</sup>	
	or MUSEN:121 University Singers	
MUSAP:124	Voice	
MUSAP:224	Voice	
MUSAP:324	Voice	2-4
MUSAP:424	Voice <sup>2</sup>	
Total Hours		44-46

<sup>1</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

<sup>2</sup> Completion of 400 level required prior to graduation.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:265	Diction for Singers I	2
MUSIC:266	Diction for Singers II	2
MUSIC:361	Conducting	2
MUSIC:366	Song Literature I	2
	or MUSIC:367 Song Literature II	
MUSIC:371	Analytical Techniques	2
MUSIC:465	Vocal Pedagogy	2
Total Hours		12

## Foreign Language Requirement

Code	Title	Hours
FREN:101	Beginning French I	4
GERM:101	Beginning German I	4
ITAL:101	Beginning Italian I	4
Total Hours		12

## Recommended Sequence

### If placed into Intro to Music Theory

1st Year		
Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:124	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:106	Music Orientation	0

MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics, & Logic Requirement	3
Hours		13-15

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:124	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		17-19

### Summer Semester

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		36-40

## If placed into Theory & Musicianship I

### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:124	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics, & Logic Requirement	3
Hours		17-19

### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:124	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		17-19
Total Hours		34-38

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

**ALL****2nd Year****Fall Semester**

		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:224	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:221	Theory and Musicianship III	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:351	Music History I	3
MUSIC:265	Diction for Singers I	2
	Social Science Requirement	3
Hours		17-19

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:224	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
MUSIC:266	Diction for Singers II	2
	Social Science Requirement	3
Hours		17-19

**3rd Year****Fall Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:324	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:371	Analytical Techniques	2
GERM:101 or ITAL:101	Beginning German I or Beginning Italian I	4
	Natural Science with Lab Requirement	4
Hours		13-15

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:324	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:366	Song Literature I <sup>1</sup>	2
OR		
MUSIC:367	Song Literature II <sup>2</sup>	2
FREN:101	Beginning French I	4
	Arts/Humanities Requirement	3
	Natural Science Requirement	3
Hours		15-17

**4th Year****Fall Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSAP:424	Voice	2-4
MUSEN:120	Concert Choir	1
MUSIC:361	Conducting	2
MUSEN:108	Opera/Lyric Theater Workshop	1
MUSIC:453	Music Software Survey and Use	2

GERM:101 or ITAL:101	Beginning German I or Beginning Italian I	4
MUSIC:465	Vocal Pedagogy	2
Hours		14-16
<b>Spring Semester</b>		
MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:424	Voice	2-4
MUSEN:120	Concert Choir	1
MUSEN:108	Opera/Lyric Theater Workshop	1
	Arts/Humanities Requirement	3
	Integrated & Applied Learning Requirement	3
Hours		10-12
Total Hours		86-98

<sup>1</sup> ODD Years<sup>2</sup> EVEN Years

## Music, Woodwind Performance, BM

### Bachelor of Music, Woodwind Performance (C50103BM)

More on the Music, Woodwind Performance major (<https://www.uakron.edu/music/degrees/>)

This program of study is designed to offer students a professional degree in music. Core coursework includes classes in music theory and musicianship, music history, keyboard skills, applied lessons, and participation in major ensembles. The Bachelor of Music program includes intensive private study in woodwind performance in preparation for a performing or private teaching career or as preparation for further study at the graduate level.

### Requirements for Admission

Students wishing to major in music must complete the standard undergraduate application for admission and return it to the Office of Admissions. A student cannot be formally admitted to the School of Music until admitted to the University.

To be accepted as a music major, both freshmen and transfer students must successfully complete an audition on their major applied instrument, complete The Undergraduate Placement Examination in Music Theory, and be evaluated in keyboard skills.

The following information has official approval of **The School of Music and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.



## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Music Core	32
	Applied Music and Performance Courses	41
	Additional Required Music Courses	12-13
	Music Electives	1
	<b>Total Hours</b>	<b>120-121</b>

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirement

Code	Title	Hours
	<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>	
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	

## Music Core

Code	Title	Hours
MUSIC:101	Introduction to Music Theory <sup>1</sup>	
MUSIC:104	Class Piano I <sup>1</sup>	
MUSIC:105	Class Piano II <sup>1</sup>	
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4

MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2
MUSIC:155	Music Literature II	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:222	Theory and Musicianship IV	4
MUSIC:261	Keyboard Harmony I	2
MUSIC:262	Keyboard Harmony II	2
MUSIC:351	Music History I	3
MUSIC:352	Music History II	3
MUSIC:453	Music Software Survey and Use	2
	<b>Total Hours</b>	<b>32</b>

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test

## Applied Music and Performance Courses

Code	Title	Hours
MUSIC:157	School of Music Performance Seminar (eight semesters)	0
MUSAP:1xx	Applied Music Primary Instrument	8
MUSAP:2xx	Applied Music Primary Instrument	8
MUSAP:3xx	Applied Music Primary Instrument	8
MUSAP:4xx	Applied Music Primary Instrument <sup>1</sup>	8
MUSIC:457	Senior Recital (full recital)	0
MUSEN:xxx	Chamber Music Ensemble	1
	<b>Complete a minimum of eight credits from the following: <sup>2</sup></b>	<b>8</b>
MUSEN:103	University Symphony: Orchestra	
MUSEN:104	Wind Symphony	
MUSEN:125	Symphony Band	
MUSEN:128	Concert Band	
	<b>Total Hours</b>	<b>41</b>

<sup>1</sup> Completion of 400 level required prior to graduation.

<sup>2</sup> Students must complete the 8 credits for the ensemble requirement in 8 separate semesters.

## Additional Required Music Courses

Code	Title	Hours
MUSIC:361	Conducting	2
MUSIC:371	Analytical Techniques	2
MUSIC:372	Post-Tonal Analytic Techniques	2
MUSIC:416		
MUSIC:454	Orchestration	2
MUSIC:471	Counterpoint	2-3
	or MUSIC:353 Electronic Music	
	<b>Total Hours</b>	<b>10-11</b>

## Music Electives

Code	Title	Hours
	<b>Complete one credit</b>	<b>1</b>
MUSIC:xxx		
	<i>The following courses do not satisfy this requirement:</i>	
MUSIC:101	Introduction to Music Theory	

MUSIC:104	Class Piano I	
MUSIC:105	Class Piano II	
Total Hours		1

## Recommended Sequence

### If placed into Intro to Music Theory

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:101	Introduction to Music Theory <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		15

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		19

#### Summer Semester

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
Hours		6
Total Hours		40

### If placed into Theory & Musicianship I

#### 1st Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:106	Music Orientation	0
MUSIC:121	Theory and Musicianship I	4
MUSIC:104	Class Piano I <sup>1</sup>	2
MUSIC:154	Music Literature I	2
	Writing Requirement	3
	Mathematics, Statistics and Logic Requirement	3
Hours		19

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:1xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1

MUSIC:122	Theory and Musicianship II	4
MUSIC:105	Class Piano II <sup>1</sup>	2
MUSIC:155	Music Literature II	2
ENGL:112	English Composition II	3
	Speaking Requirement	3
Hours		19
Total Hours		38

<sup>1</sup> Not counted in degree program total; required or excused per placement audition/test.

## ALL

#### 2nd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:261	Keyboard Harmony I	2
MUSIC:221	Theory and Musicianship III	4
MUSIC:351	Music History I	3
	Social Science Requirement	3
Hours		17

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:2xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:222	Theory and Musicianship IV	4
MUSIC:262	Keyboard Harmony II	2
MUSIC:352	Music History II	3
	Natural Science with Lab Requirement	4
Hours		18

#### 3rd Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:371	Analytical Techniques	2
MUSIC:454	Orchestration	2
MUSIC:416	<sup>1</sup>	
	Social Science Requirement	3
Hours		12

#### Spring Semester

MUSIC:157	School of Music Performance Seminar	0
MUSAP:3xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:361	Conducting	2
MUSIC:372	Post-Tonal Analytic Techniques	2
	Arts/Humanities Requirement	3
	Natural Science Requirement	3
Hours		15

#### 4th Year

Fall Semester		Hours
MUSIC:157	School of Music Performance Seminar	0

MUSAP:4xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSIC:416	<sup>1</sup>	
MUSIC:453	Music Software Survey and Use	2
	Arts/Humanities Requirement	3
	Hours	10

**Spring Semester**

MUSIC:157	School of Music Performance Seminar	0
MUSIC:457	Senior Recital	0
MUSAP:4xx	Applied Music	4
MUSEN:1xx	Major Conducted Ensemble	1
MUSEN:xxx	Chamber Music Ensemble	1
MUSIC:471	Counterpoint	2-3
	or MUSIC:353 or Electronic Music	
MUSIC:xxx	Music Electives	1
	Integrated and Applied Learning Requirement	3
	Hours	12-13
	Total Hours	84-85

<sup>1</sup> EVEN Years

## Piano Pedagogy, Certificate

### Certificate in Piano Pedagogy (C50210C)

**Program Contact**

Dr. Marc Reed  
Director  
School of Music  
330-972-5761  
marcreed@uakron.edu

The following information has official approval of the **School of Music** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Piano Pedagogy" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. Students must pass music placement tests and play a piano audition for admission into the program.

**Summary**

Code	Title	Hours
Core Requirements		18
Piano		8
Total Hours		26

**Core Requirements**

Code	Title	Hours
MUSIC:121	Theory and Musicianship I	4
MUSIC:122	Theory and Musicianship II	4
MUSIC:154	Music Literature I	2

MUSIC:155	Music Literature II	2
MUSIC:271	Piano Pedagogy & Literature I	2
MUSIC:272	Piano Pedagogy & Literature II	2
MUSIC:497	Independent Study in Music	1-2
Total Hours		17-18

**Piano**

Code	Title	Hours
<b>Complete 8 credits of the following:</b>		
MUSAP:125	Piano <sup>1</sup>	8
Total Hours		8

<sup>1</sup> Students may repeat course MUSAP:125 Piano twice, for a total of 8 credits.

- Two credits represent one half-hour lesson per week.
- Four credits represent an hour lesson per week.
- Enrollment may be repeated each semester for credit.
- A fee is charged in addition to regular tuition.

**Pan African Studies**

The University of Akron's Pan African studies takes an interdisciplinary approach to understanding Afro-centric philosophy and world views. This approach encompasses analyzing African and African-American history from a social, psychological and cultural context. This approach provides students with a framework to compare and contrast the experiences of African and African American people past, present, and future and their contributions across academic disciplines and professions.

Students pursuing the Pan African Studies certificate should:

- Be fully admitted to the University of Akron as an undergraduate or post-baccalaureate student.
- Fill out the Pan African Studies Certificate Program Application (<https://www.uakron.edu/webforms/undergraduate-certificate-program-application/>)
- Turn in completed application to the Dr. Sheldon Wrice, Program Director.
- Complete a total of 15 credit hours (6 credit hours of required courses and 9 credit hours of elective courses).
- Pan African Studies, Certificate (p. 308)

**Pan African Studies (PAFS)****PAFS:201 Introduction to Pan-African Studies (3 Credits)**

Prerequisite: ENGL 112. An interdisciplinary study from an Afrocentric perspective of African and African diaspora experiences. The course will focus on central issues related to the discipline. (Formerly 3002:201)

**Gen Ed:** - Domestic Diversity

**PAFS:252 The Black Experience 1619-1918 (3 Credits)**

Prerequisite: ENGL 112. This course explores ideas, people and events which will allow the class to re-think their individual and collective beliefs regarding Africa, Africans, and African-Americans as well as Black people throughout the Diaspora. More specifically, the period of 1619 to 1918 examines the origins of African-Americans beginning with their unwilling departure from West Africa, slavery, abolition, the Civil War, emancipation, reconstruction, historical achievements and striving to achieve first class citizenship in America. (Formerly 3002:252)

**Gen Ed:** - Social Science; - Domestic Diversity

**PAFS:253 The Black Experience 1918-Present (3 Credits)**

Prerequisite: ENGL 112. This course explores ideas, people and events which will allow students to re-think their individual and collective beliefs about Africa, Africans and African-Americans as well as Black people throughout the Diaspora. More specifically, the period of 1918 to Present examines the experiences of African-Americans following the Reconstruction. Topics include, but are not limited to, separate but equal doctrine, the civil rights movement, Black nationalism, segregation, desegregation and integration as strategies to ameliorate discrimination and achieve equal opportunity. (Formerly 3002:253)

**Gen Ed:** - Social Science; - Domestic Diversity

**PAFS:256 Diversity in American Society (3 Credits)**

Prerequisite: ENGL 112. Survey course covering demographic, social, economic, political, and educational realities of diversity in 21st Century. Focus on diversity and unity, historical overview. (Formerly 3002:256)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**PAFS:301 Civil Rights Movement in America: 1945-1974 (3 Credits)**

Social and political actions, events and environment which produces civil rights movement in America. Legal, political and organizational strategies; philosophical arguments; prominent civil rights activists. (Formerly 3002:301)

**PAFS:401 Seminar in Afro-American Studies (3 Credits)**

Prerequisite: HIST 361. Exploration and intensive examination of variety of issues related to role and minority group relations which normally stand outside the compass of any one subject matter area. (Formerly 3002:401)

**PAFS:405 African American Men's History and Studies (3 Credits)**

This course will examine the experiences of the African American Men from a historical, socio-economic, philosophical, religious/spiritual, psychological standpoint. (Formerly 3002:405)

**PAFS:410 African American Religious Experience (3 Credits)**

This course explores the diversity of African American religious beliefs, experiences, and expressions from the colonial era to the present. (Formerly 3002:410)

**PAFS:420 Special Topics in Afro-American Studies (1-3 Credits)**

(May be repeated for a maximum of three semester credits). Prerequisite: Permission of instructor. (Formerly 3002:420)

**PAFS:498 Independent Study: Pan-African (1-3 Credits)**

(May be repeated for a maximum of three semester credits). Prerequisites: PAFS 201 and [HIST 361 or HIST 362] and permission of director. Directed study in a special field of interest chosen by student in consultation with instructor. (Formerly 3002:498)

## Pan African Studies, Certificate

### Certificate in Pan African Studies (300002C)

As an interdisciplinary field, Pan-African Studies helps students to gain a better understanding of the African-American experience while providing comparable experiences of others who were a part of the African Diaspora. This certificate allows students to examine Pan-African experiences from a social, historical, psychological and cultural context.

**Program Contact**

*Dr. Sheldon Wrice*

*Professor, Technical Writing & Composition, Assoc. Dean-Humanities*

*330-972-6023*

*swrice1@uakron.edu*

The following information has official approval of the **Department of Pan African Studies** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Pan-African Studies" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. A student undertaking the Pan African Studies Certificate Program must have prior consultation with the director of Pan African Studies. Special Topics/ Selected Studies courses on topics appropriate to Pan African Study's certificate may be applied with permission of Director.

- Course ENGL:389 Special Topics: Literature & Language must select from one of the following topics: Afro-American Novel or Afro-American Drama.
- Course ENGL:689 Seminar in English must select topic: Seminar-Wright/Ellison/Baldwin.
- Course HIST:340 Selected Topics in History must select topic: African Expansion in Latin America.

## Summary

Code	Title	Hours
	Core Requirements	6
	Electives	9
	Total Hours	15

## Core Requirements

Code	Title	Hours
PAFS:201	Introduction to Pan-African Studies	3
HIST:361	African American History, 1492-1877	3
or HIST:362	African American History, 1877 to Present	
	Total Hours	6

## Electives

Code	Title	Hours
<b>Select 9 credits from the following:</b>		<b>9</b>
WMST:100	Social & Cultural Diversity in the United States	
WMST:110	Multicultural Sensitivity Training	

PAFS:301	Civil Rights Movement in America: 1945-1974
PAFS:401	Seminar in Afro-American Studies
PAFS:405	African American Men's History and Studies
PAFS:410	African American Religious Experience
PAFS:420	Special Topics in Afro-American Studies
PAFS:498	Independent Study: Pan-African
ANTH:251	Human Diversity
ECON:487	Urban Economics:Theory & Policy
ENGL:113	African American Language and Culture I: College Composition
ENGL:114	African American Language and Culture II: College Composition
ENGL:350	Black American Literature
ENGL:389	Special Topics: Literature & Language
ENGL:471	U.S. Dialects: Black & White
GEOG:353	Latin America
GEOG:363	Africa South of the Sahara
GEOG:420	Urban Geography
HIST:290	World Civilizations: Africa
HIST:340	Selected Topics in History
HIST:468	African-American Social & Intellectual History
SOCIO:421	Race & Ethnic Relations
SOWK:270	Diversity and Social Work
SOWK:276	Introduction to Social Welfare
SOWK:455	Social Work Practice with African American Families

Total Hours

9

## Philosophy

### The Value of Philosophy

Philosophy students acquire knowledge and skills that can apply to a wide range of fields. Among these are critical thinking and analytical reasoning skills, decision-making skills, the ability to communicate effectively and to make ethical judgements, and the ability to apply knowledge and skills to real-world settings. Philosophy places the greatest value on demonstrated proficiency that cuts across all majors. As a result, philosophy graduates achieve long-term career success.

### Career Paths

Philosophy graduates often continue their education in graduate, law, or medical programs, or obtain positions in a wide variety of fields, including education, publishing, marketing, consulting, government, environmental management, public administration, foreign service, law and law enforcement, human resources, insurance, libraries, and religious or social service areas.

### Admission

For students enrolled at the University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from their institutions, the following criteria must be satisfied for admission to the Department of Philosophy.

- The student must be admissible to Buchtel College of Arts and Sciences

- A minimum grade point average of 2.00 must be met in all university work, including transfer credits
- A minimum grade point average of 2.00 must be met in all work in Philosophy, including university and transfer credits. Only credits earned at an accredited institution of post-secondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.

## Philosophy Programs

- Artificial Intelligence, Certificate (p. 312)
- Bioethics, Minor (p. 312)
- Environmental Ethics, Certificate (p. 313)
- Environmental Ethics, Minor (p. 313)
- Ethics, Minor (p. 314)
- General Philosophy, Minor (p. 315)
- Law Enforcement Ethics, Certificate (p. 315)
- Philosophy of Religions, Minor (p. 316)
- Philosophy of Science and Religion, Minor (p. 317)
- Philosophy of Science, Minor (p. 317)
- Philosophy, BA (p. 318)
- Philosophy/JD Degree Accelerated, BA (p. 320)
- Pre-Law Philosophy, Minor (p. 321)

## Interdisciplinary Programs

- Social Science, Divisional PPE Track, BA (p. 374)
- Social Sciences, Divisional PSP Track, BA (p. 375)

## Philosophy (PHIL)

### PHIL:101 Introduction to Philosophy (3 Credits)

Introduction to the methods of philosophy, important leading thinkers, and topics such as free will, consciousness, goodness, truth, and beauty. (Formerly 3600:101)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

### PHIL:120 Introduction to Ethics (3 Credits)

Introduction to problems of moral conduct through readings from the tradition and class discussions; nature of "good," "right," "ought" and "freedom". (Formerly 3600:120)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

### PHIL:125 Theory & Evidence (3 Credits)

An investigation of the concept of evidence and the criteria for the evaluation of theories in various areas of study, including natural sciences, social sciences, and philosophy. The role of scientific information in the formation and justification of value judgments. (Formerly 3600:125)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

### PHIL:150 Critical Thinking (3 Credits)

Examination of good and bad reasoning patterns. Topics may include rational and persuasive arguments, deductive and inductive inference, causal and basic statistical inference, logical fallacies, and moral arguments. (Formerly 3600:150)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**PHIL:170 Introduction to Logic (3 Credits)**

Introduction to logic and critical thinking. Includes such topics as meaning, informal fallacies, propositional logic, predicate and syllogistic logic and nature of induction. (Formerly 3600:170)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**PHIL:200 Philosophy of World Religions (3 Credits)**

A philosophical examination of the major religious traditions of the world including Christianity, Judaism, Islam, Buddhism, Hinduism, Taoism, tribal religions, and others. (Formerly 3600:200)

**Gen Ed:** - Global Diversity

**PHIL:207 Food Ethics (3 Credits)**

Considers ethical questions about food choices and policies, what individuals eat, and what actions society ought to take regarding food growth, processing, marketing, selling, and consumption. (Formerly 3600:207)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:210 Logic for Lawyers (3 Credits)**

An introduction to applied deductive and inductive logic reasoning skills, concentrating on applications to reasoning in legal contexts, e.g., courtroom argumentation and jury deliberations. (Formerly 3600:210)

**PHIL:211 History of Ancient Philosophy (3 Credits)**

History and development of ancient Greek philosophy including Presocratics, Socrates, Plato, Aristotle, and Hellenistic philosophers. Readings of primary sources in translation. (Formerly 3600:211)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**PHIL:241 Technology & Human Values (3 Credits)**

Examines impact of scientific and technical change upon individuals and society and associated values. Topics include digital and work life, biomedical technologies and the environment. (Formerly 3600:241)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:312 History of Medieval Philosophy (3 Credits)**

History of Western philosophy from end of Roman Empire to Renaissance. Major philosophers studied include St. Augustine, St. Anselm, Peter Abelard, St. Thomas Aquinas, Duns Scotus and William of Ockham. Readings from primary sources. (Formerly 3600:312)

**PHIL:313 History of Modern Philosophy (3 Credits)**

Analysis of major philosophical issues of 17th and 18th Centuries from Descartes through Kant. Readings of primary sources in translation. (Formerly 3600:313)

**PHIL:323 Advanced Topics in Ethics (3 Credits)**

(May be repeated with change of topic for a total of nine credits). An examination of selected topics in applied ethics and ethical theory, such as the ethics of cloning, evolutionary ethics, history of ethics and ethical issues from the Human Genome Project. Specific topics will be announced in the course schedule. (Formerly 3600:323)

**PHIL:324 Social & Political Philosophy (3 Credits)**

An examination of the normative justification of social and political institutions and practices. Analysis of concepts such as rights, justice, equality, and political obligation from historical as well as contemporary points of view. Application to particular social issues covered. (Formerly 3600:324)

**PHIL:327 Law and Morality (3 Credits)**

Nature of law examined from the perspective of the law's alleged obligation to be ethical and promote justice. (Formerly 3600:327)

**PHIL:329 Philosophy of International Law (3 Credits)**

Inquiry into the theories of utility of international law and the philosophical controversies surround them, e.g., international legal norms vs. international relations. (Formerly 3600:329)

**PHIL:331 Philosophy of Religion (3 Credits)**

Discussion and analysis of problems of theology, nature of religious experience, God's nature, existence, immortality, sin, faith, reason, holy revelation, and redemption. (Formerly 3600:331)

**PHIL:333 Philosophy of Science and Religion (3 Credits)**

Survey of conflict, independence, and integration models of science and religion. Topics include: origin and nature of the universe, life, mind, value, meaning, science, religion. (Formerly 3600:333)

**PHIL:340 Eastern Philosophy (3 Credits)**

Examination and evaluation of philosophical traditions from India, China and Japan, including Hinduism, Buddhism, Taoism and Confucianism. (Formerly 3600:340)

**Gen Ed:** - Global Diversity

**PHIL:350 Philosophy of Art (3 Credits)**

An examination of theories of the nature of art and the grounds of aesthetic evaluation. Analysis of such concepts as representation, form, content, expression, institution, convention, meaning and truth as they apply in the context of the arts. (Formerly 3600:350)

**PHIL:361 Biomedical Ethics (3 Credits)**

The identification, analysis and evaluation of ethical issues arising most critically in the biomedical setting, e.g., abortion, termination of treatment, definition of death, IVF, AIDS. (Formerly 3600:361)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:362 Business Ethics (3 Credits)**

Basic moral theories, moral principles, and the decision-making process applied to issues in business. (Formerly 3600:362)

**PHIL:363 Ethics of Policing (3 Credits)**

Basic moral concepts and their application to the criminal justice system. Concerned with such issues as punishment, the use of force, and conflict resolution. (Formerly 3600:363)

**PHIL:364 Digital Ethics (3 Credits)**

A critical examination of ethical issues arising in connection with digital technology, e.g., data privacy and use, artificial intelligence, censorship, and social media. (Formerly 3600:364)

**PHIL:365 Environmental Ethics (3 Credits)**

Examination of the moral relationships among human beings, other species, and their shared environment. Ethical aspects of agriculture, global warming, extinction, and wilderness. (Formerly 3600:365)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:366 Engineering Ethics (3 Credits)**

Addresses the specific ethical issues and problems that arise in the practice and study of engineering as a discipline. (Formerly 3600:366)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:371 Philosophy of Mind (3 Credits)**

Nature of mind and the relationship between mind and body. Specific topics such as the limits of human reason, personal identity, the role of human thought in action and whether machines can think are also considered. (Formerly 3600:371)

**PHIL:374 Symbolic Logic (3 Credits)**

Systematic study of various forms of deduction. Techniques and topics include truth-functional analysis and quantification. (Formerly 3600:374)

**PHIL:392 Internship in Philosophy (1-3 Credits)**

Prerequisite: Minimum cumulative Grade Point Average of 2.7 or greater. Placement in appropriate public or private sector organization. Written assignments required. May repeat for maximum 6 credits. (Formerly 3600:392)

**PHIL:411 Plato (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Detailed study of the origin and development of Plato's theory of forms and the related theories of knowledge, ethics and politics. (Formerly 3600:411)

**PHIL:414 Aquinas (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. An in depth examination of the philosophy of St. Thomas Aquinas covering his contributions in metaphysics, epistemology, ethics, political theory, and philosophical theology. (Formerly 3600:414)

**PHIL:415 Augustine (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. An in depth examination of the philosophy of St. Augustine covering his contributions in metaphysics, epistemology, ethics, political theory, and philosophical theology. (Formerly 3600:415)

**PHIL:418 20th Century Analytic Philosophy (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Study of ideal and ordinary language movements in 20th century British and American philosophy. Deals with such figures as Russell, Carnap, Ayer, Moore, Wittgenstein, Ryle and Austen. (Formerly 3600:418)

**PHIL:421 Philosophy of Law (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Identification and critical evaluation of classic and contemporary theories and assumptions of law, including legal reasoning, justice, natural law, punishment, etc. (Formerly 3600:421)

**PHIL:424 Existentialism (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher, or permission of instructor. In-depth inquiry into the thought of Kierkegaard, Jaspers, Heidegger, Sartre, Tillich and other existentialists with their concern for the human condition. (Formerly 3600:424)

**PHIL:426 Phenomenology (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher, or permission. Inquiry into methodology of Husserl and Heidegger and their influence upon Western European and American thought. (Formerly 3600:426)

**PHIL:432 Aristotle (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Detailed study of Aristotle's metaphysics, philosophy of nature, philosophy of mankind and ethics. (Formerly 3600:432)

**PHIL:434 Kant (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Study of Kantian system of thought and its relation to history of philosophy. Includes thorough investigation of one or more of Kant's philosophic works. (Formerly 3600:434)

**PHIL:455 Philosophy of Feminism (3 Credits)**

Prerequisite: One course in philosophy with a grade of C or better, or permission of instructor. Introduction to feminist critiques of, and alternatives to, traditional western philosophy, including topics in ethics, metaphysics, epistemology, and religion. (Formerly 3600:455)

**Gen Ed:** - Domestic Diversity

**PHIL:456 Philosophy of Race & Ethnicity (3 Credits)**

Prerequisite: One course in Philosophy with a grade of C or higher. This course explores the philosophical assumptions behind the concepts of race and ethnicity within the United States and their metaphysical, epistemological, and phenomenological legitimacy as well as the political effects of racial and ethnic identities and the social reality of racial and ethnic designations (including white, African-American, Latina/o, American Indian and Asian American). (Formerly 3600:456)

**Gen Ed:** - Domestic Diversity

**PHIL:461 Neuroethics (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Discussion and evaluation of contemporary theories of moral agency arising from developments in neuroscience. (Formerly 3600:461)

**PHIL:462 Theory of Knowledge (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Examination of nature of knowledge; theories of perception, conception and truth, problem of induction and relation of language to knowledge. (Formerly 3600:462)

**PHIL:464 Philosophy of Science (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Nature of scientific inquiry, types of explanation, laws and causality, theoretical concepts and reality. Also considers critics of hypothetical-deductive view of science, e.g., Hanson and Kuhn. (Formerly 3600:464)

**PHIL:471 Metaphysics (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Theories about ultimate nature and ultimate explanation of reality. Uses readings from classical and contemporary sources. (Formerly 3600:471)

**PHIL:480 Seminar in Philosophy (3 Credits)**

(May be repeated, for additional credit, with change of topic).

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Varying philosophical topics not covered in regular course offerings. (Formerly 3600:480)

**PHIL:481 Philosophy of Language (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. An examination of contemporary debates in the philosophy of language and various influential views on meaning, reference, truth, and the content of belief. (Formerly 3600:481)

**PHIL:490 Senior Honors Project in Philosophy (1-3 Credits)**

Prerequisite: Senior standing in Honors Program or senior honors standing as Philosophy major, and permission of Philosophy Department Honors Preceptor. Research leading to completion of senior honors thesis involving original work under faculty supervision. A maximum of 3 credit hours can be applied towards a philosophy major or minor. (May be repeated for 1-3 credits for a maximum of 6 credits) (Formerly 3600:490)

**PHIL:497 Individual Study in Philosophy (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: PHIL 101, PHIL 120, PHIL 170, PHIL 211, PHIL 312, and PHIL 313. Directed independent study of philosopher, philosophy or philosophical problem under guidance of selected faculty member. Subject matter determined by selected faculty member in consultation with student. Graduate credit requires significant additional work which may include additional research paper. (Formerly 3600:497)

## Artificial Intelligence, Certificate

### Certificate in Artificial Intelligence (360010C)

This certificate program offers coursework in philosophy intended to help those interested in artificial intelligence to better navigate philosophical issues associated with the topic. Believing that our industry is best served by having informed individuals, this certificate is designed for all students (non-degree-seeking or degree-seeking, no matter what their degree program) who have an interest in the ethics of artificial intelligence.

#### Program Contact

*Dr. Christopher Buford*  
Undergraduate Advisor, Department of Philosophy  
330-972-6959  
cb72@uakron.edu

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The following courses constitute a "Certificate in Artificial Intelligence" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

Code	Title	Hours
Required Courses		6
Electives		6
Total Hours		12

### Required Courses

Code	Title	Hours
PHIL:364	Digital Ethics	3
PHIL:371	Philosophy of Mind	3
Total Hours		6

### Electives

Code	Title	Hours
<b>Complete six credits:</b>		<b>6</b>
PHIL:125	Theory & Evidence	
PHIL:150	Critical Thinking	
PHIL:323	Advanced Topics in Ethics <sup>1</sup>	
PHIL:366	Engineering Ethics	
PHIL:374	Symbolic Logic	
PHIL:462	Theory of Knowledge	
PHIL:464	Philosophy of Science	
PHIL:480	Seminar in Philosophy <sup>1</sup>	
PHIL:481	Philosophy of Language	
PHIL:490	Senior Honors Project in Philosophy <sup>1</sup>	

PHIL:497	Individual Study in Philosophy <sup>1</sup>	6
Total Hours		6

<sup>1</sup> Must be on a related topic.

## Bioethics, Minor

### Minor in Bioethics (360002M)

The Bioethics Minor is designed for students to become familiar with the ethical issues surrounding medicine, health care, and other biomedical topics such as abortion, euthanasia, genetic testing, organ donation, scientific research, etc. Bioethics draws on perspectives from other disciplines, and so this program incorporates an interdisciplinary approach by allowing designated courses from other departments, such as Biology, Anthropology, Psychology, and Sociology, to count as partial credit towards the minor.

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*Dr. Christopher Buford*  
Undergraduate Advisor, Department of Philosophy  
330-972-6959  
cb72@uakron.edu

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The following courses constitute a "Minor in Bioethics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

### Required Courses

Code	Title	Hours
PHIL:120	Introduction to Ethics	3
PHIL:361	Biomedical Ethics	3
Total Hours		6

### Electives

Code	Title	Hours
<b>Select 6 credits of the following: <sup>1</sup></b>		<b>6</b>
PHIL:323	Advanced Topics in Ethics	
PHIL:365	Environmental Ethics	
PHIL:461	Neuroethics	
PHIL:464	Philosophy of Science	



PHIL:480	Seminar in Philosophy <sup>2</sup>
<b>Select 6 credits of the following:</b>	
BIOL:312	Neuroscience in Health and Disease
BIOL:428	Biology of Behavior
ANTH:309	Medicine & the Humanities
ANTH:457	Medical Anthropology
ECON:436	Health Economics
PHIL:323	Advanced Topics in Ethics
PHIL:365	Environmental Ethics
PHIL:392	Internship in Philosophy <sup>2</sup>
PHIL:461	Neuroethics
PHIL:464	Philosophy of Science
PHIL:480	Seminar in Philosophy <sup>2</sup>
POLIT:413	Global Public Health Threats
PSYC:320	Biopsychology
PSYC:335	Dynamics of Personality
PSYC:340	Social Psychology
PSYC:415	Cognitive Neuroscience
PSYC:420	Abnormal Psychology
PSYC:430	Psychological Disorders of Children
CHFD:442	Human Sexuality
SOCIO:342	Sociology of Health & Illness
SOCIO:450	Sociology of Mental Illness
HCM:480	Introduction to Health-Care Management <sup>3</sup>
SLPA:454	Child in the Hospital
SOWK:456	Social Work in Health Services
NURS:217	Pathophysiology for Nurses
NURS:412	Global Perspectives of Health and Health Care
NURS:445	Nursing of Communities - RN Only
Total Hours	12

<sup>1</sup> Courses used in this section cannot be repeated for credit in section below.

<sup>2</sup> PHIL:392 and PHIL:480 need to be on a bioethics topic. See an adviser for approval.

<sup>3</sup> Students who are required to take MGMT:301 Management: Principles & Concepts or have completed MGMT:301 Management: Principles & Concepts or equivalent are not eligible to take this course for credit.

## Environmental Ethics, Certificate

### Certificate in Environmental Ethics (360006C)

This certificate program will offer coursework in philosophy intended to help those interested in environmental issues and the effects our individual and collective choices have on us and society at large. The certificate is designed for all students (non degree-seeking or degree-seeking, no matter what their degree program) who have an interest in environmental ethics.

#### Program Contact

Dr. Christopher Buford  
Undergraduate Advisor, Department of Philosophy  
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cb72@uakron.edu

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The following courses constitute a "Certificate in Environmental Ethics" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		6
Electives		6
Total Hours		12

#### Required Courses

Code	Title	Hours
PHIL:207	Food Ethics	3
PHIL:365	Environmental Ethics	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Complete six credits:</b>		<b>6</b>
PHIL:125	Theory & Evidence	
PHIL:150	Critical Thinking	
PHIL:323	Advanced Topics in Ethics <sup>1</sup>	
PHIL:362	Business Ethics	
PHIL:455	Philosophy of Feminism	
PHIL:480	Seminar in Philosophy <sup>1</sup>	
PHIL:490	Senior Honors Project in Philosophy <sup>1</sup>	
PHIL:497	Individual Study in Philosophy <sup>1</sup>	
Total Hours		6

<sup>1</sup> Must be on a related topic.

## Environmental Ethics, Minor

### Minor in Environmental Ethics (360006M)

The Environmental Ethics Minor is designed for students to become familiar with the ethical relationship of humans to the natural environment and its inhabitants, particularly in a time of global warming, loss of rare habitats and species, and sustainability and green technology initiatives. Environmental Ethics draws on perspectives from other disciplines, and so this program incorporates an interdisciplinary approach by allowing designated courses from other departments to count as partial credit towards the minor.

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The following courses constitute a "Minor in Environmental Ethics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Students cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
PHIL:120	Introduction to Ethics	3
PHIL:207	Food Ethics	3
PHIL:365	Environmental Ethics	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 3 credits of the following:</b>		<b>3</b>
PHIL:323	Advanced Topics in Ethics	
PHIL:324	Social & Political Philosophy	
PHIL:361	Biomedical Ethics	
PHIL:464	Philosophy of Science	
PHIL:480	Seminar in Philosophy <sup>1</sup>	
<b>Select 6 credits of the following:</b>		<b>6</b>
EMHS:220	Environmental Law & Regulations	
EMHS:221	Environmental Law & Regulations II	
EMHS:230	Water & Atmospheric Pollution	
EMHS:232	Environmental Sampling Laboratory	
BIOL:217	General Ecology	
BIOL:418	Field Ecology	
BIOL:421	Tropical Field Biology	
BIOL:422	Conservation Biology	
BIOL:423	Population Biology	
BIOL:426	Wetland Ecology	
BIOL:427	Freshwater Ecology	
BIOL:430	Community/Ecosystem Ecology	
ECON:385	Economics of Natural Resources & the Environment	
ENGL:456	Thoreau, Emerson, and Their Circle	
GEOG:310	Physical & Environmental Geography	

GEOG:314	Climatology	
GEOG:351	Ohio: Environment & Society	
GEOG:415	Environmental Planning	
GEOG:495	Soil & Water Field Studies	
GEOL:200	Environmental Geology	
GEOL:201	Exercises in Environmental Geology I	
GEOL:203	Exercises in Environmental Geology II	
GEOL:211	Introduction to Environmental Science	
GEOL:355	Contemporary Issues in Environmental Science	
GEOL:371	Oceanography	
GEOL:445	Environmental and Engineering Geophysics	
GEOL:451	Field/Lab Studies in Environmental Science	
GEOL:463	Environmental Micropaleontology	
GEOL:465	Geomicrobiology	
GEOL:474	Groundwater Hydrology	
GEOL:480	Seminar in Environmental Studies	
HIST:471	American Environmental History	
PHIL:323	Advanced Topics in Ethics	
PHIL:324	Social & Political Philosophy	
PHIL:361	Biomedical Ethics	
PHIL:392	Internship in Philosophy	
PHIL:464	Philosophy of Science	
PHIL:480	Seminar in Philosophy	
POLIT:417	Environmental Security and Climate Politics	
SOCIO:321	Population, Environment, and Health	
CHEE:463	Pollution Control	
CIVE:321	Introduction to Environmental Engineering	
CIVE:323	Water Supply & Pollution Control	
CIVE:426	Environmental Engineering Design	
CIVE:427	Water Quality Modeling & Management	
HEDU:400	Environmental Aspects of Health Education	
Total Hours		9

<sup>1</sup> Needs to be on an environmental or animal ethics topic.

## Ethics, Minor Minor in Ethics (360007M)

The Ethics Minor is designed to familiarize students with moral decision-making, as it applies to all areas of life. Lives change, companies rise and fall based on the ethical decisions made every day, everywhere around the world. Thus, the Ethics Minor can give any student a solid foundation for making sound moral judgments that can be put to use in any profession, as well as in one's personal life.

### Program Contact

*Dr. Christopher Buford*  
Undergraduate Advisor, Department of Philosophy  
330-972-6959  
cb72@uakron.edu

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of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Minor in Ethics” and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student’s record. Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining more than one Philosophy minor. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		3
Electives		15
Total Hours		18

## Required Courses

Code	Title	Hours
PHIL:120	Introduction to Ethics	3
Total Hours		3

## Electives

Code	Title	Hours
<b>Select 15 credits from the following:</b>		<b>15</b>
PHIL:207	Food Ethics	
PHIL:323	Advanced Topics in Ethics	
PHIL:324	Social & Political Philosophy	
PHIL:327	Law and Morality	
PHIL:340	Eastern Philosophy	
PHIL:361	Biomedical Ethics	
PHIL:362	Business Ethics	
PHIL:363	Ethics of Policing	
PHIL:364	Digital Ethics	
PHIL:365	Environmental Ethics	
PHIL:366	Engineering Ethics	
PHIL:392	Internship in Philosophy <sup>1</sup>	
PHIL:421	Philosophy of Law	
PHIL:455	Philosophy of Feminism	
PHIL:461	Neuroethics	
PHIL:480	Seminar in Philosophy <sup>1</sup>	
PHIL:490	Senior Honors Project in Philosophy <sup>1</sup>	
PHIL:497	Individual Study in Philosophy <sup>1</sup>	
Total Hours		15

<sup>1</sup> Must be taken on an ethical topic.

## General Philosophy, Minor Minor in General Philosophy (360000M)

The General Philosophy Minor allows students to acquire valuable critical thinking skills to help them think more deeply about aspects of their major field of study. Philosophy helps students enhance their reasoning

skills, acquire broad knowledge, and confront local and global challenges – all invaluable tools in any discipline and/or career.

### Program Contact

*Dr. Christopher Buford*  
Undergraduate Advisor, Department of Philosophy  
330-972-6959  
cb72@uakron.edu

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The following courses constitute a “Minor in General Philosophy” and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student’s record. Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		3
Electives		15
Total Hours		18

## Required Courses

Code	Title	Hours
<b>Select one of the following:</b>		<b>3</b>
PHIL:101	Introduction to Philosophy	
PHIL:120	Introduction to Ethics	
PHIL:125	Theory & Evidence	
PHIL:150	Critical Thinking	
PHIL:170	Introduction to Logic	
Total Hours		3

## Electives

Code	Title	Hours
<b>Complete 15 credits of the following:</b>		
PHIL:3xx/4xx	300/400 level Philosophy courses	6
PHIL:xxx	Philosophy courses	9
Total Hours		15

## Law Enforcement Ethics, Certificate Certificate in Law Enforcement Ethics (360008C)

This certificate program is intended for individuals who wish to enhance their knowledge of ethical decision-making in policing. This certificate is independent of a degree and is designed for individuals in one of the following categories:

1. the person preparing for a career in law enforcement;
2. the person who is interested in law enforcement and seeks to enhance their knowledge of ethical decision-making related to policing;
3. the person employed in law enforcement who seeks to acquire the necessary methodology needed for ethical decision-making related to policing.

**Program Contact***Dr. Christopher Buford**Undergraduate Advisor, Department of Philosophy*

330-972-6959

cb72@uakron.edu

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The following courses constitute a "Certificate in Law Enforcement Ethics" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

**Summary**

Code	Title	Hours
Required Courses		6
Electives		6
Total Hours		12

**Required Courses**

Code	Title	Hours
PHIL:363	Ethics of Policing	3
PHIL:480	Seminar in Philosophy <sup>1</sup>	3
Total Hours		6

<sup>1</sup> PHIL:480 Seminar in Philosophy seminar must be Philosophy of Race

**Elective Courses**

Code	Title	Hours
<b>Select six credits:</b>		<b>6</b>
PHIL:323	Advanced Topics in Ethics <sup>1</sup>	
PHIL:324	Social & Political Philosophy	
PHIL:327	Law and Morality	
PHIL:421	Philosophy of Law	
PHIL:455	Philosophy of Feminism	
PHIL:490	Senior Honors Project in Philosophy <sup>1</sup>	

<sup>1</sup> Must be on a related Law Enforcement Ethics topic

## Philosophy of Religions, Minor

### Minor in Philosophy of Religions (360001M)

The Philosophy of Religions Minor allows students to reflect on their values and beliefs and to seek answers to questions on topics about

morality, truth, humanity, and God. Religion permeates many aspects of life, and so the interdisciplinary nature of this program allows students to incorporate designated courses from other disciplines, such as Classics, Anthropology, English, and History, to meet some of the requirements.

**Program Contact***Dr. Christopher Buford**Undergraduate Advisor, Department of Philosophy*

330-972-6959

cb72@uakron.edu

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The following courses constitute a "Minor in Philosophy of Religions" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

**Summary**

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

**Required Courses**

Code	Title	Hours
PHIL:200	Philosophy of World Religions	3
PHIL:331	Philosophy of Religion	3
PHIL:340	Eastern Philosophy	3
Total Hours		9

**Electives**

Code	Title	Hours
<b>Select 3 credits of the following:</b>		<b>3</b>
PHIL:312	History of Medieval Philosophy	
PHIL:313	History of Modern Philosophy	
PHIL:333	Philosophy of Science and Religion	
PHIL:414	Aquinas	
PHIL:415	Augustine	
PHIL:480	Seminar in Philosophy <sup>1</sup>	
<b>Select 6 credits of the following:</b>		<b>6</b>
PAFS:410	African American Religious Experience	
CLAS:289	Mythology of Ancient Greece	
ANTH:357	Magic, Myth, & Religion	
ENGL:360	Old Testament As Literature	
ENGL:361	The New Testament and Apocrypha as Literature	
HIST:320	Medieval Europe, 1200-1500	
HIST:321	Europe: Renaissance to Religious Wars, 1350-1610	

HIST:322	Europe: Absolutism to Revolution, 1610-1789
HIST:340	Selected Topics in History <sup>1</sup>
HIST:341	Islamic Fundamentalism & Revolution
HIST:342	The Crusades through Arab Eyes
HIST:355	American Religious History
HIST:371	Selected Topics: North American History <sup>1</sup>
HIST:425	The Reformation
PHIL:211	History of Ancient Philosophy
PHIL:312	History of Medieval Philosophy
PHIL:313	History of Modern Philosophy
PHIL:333	Philosophy of Science and Religion
PHIL:392	Internship in Philosophy <sup>1</sup>
PHIL:414	Aquinas
PHIL:415	Augustine
PHIL:471	Metaphysics
PHIL:480	Seminar in Philosophy <sup>1</sup>
SOCIO:365	Special Topics in Sociology <sup>1</sup>
Total Hours	9

<sup>1</sup> Must be taken on a religious topic.

## Philosophy of Science and Religion, Minor

### Minor in Philosophy of Science and Religion (360003M)

The Philosophy of Science and Religion Minor allows students to reflect upon the coexistence of faith and reason/God and science by considering their relationship from both a theoretical and practical perspective.

These two, seemingly at odds, disciplines draw on aspects from the natural sciences, social sciences, and humanities, and so the program incorporates designated courses from these diverse areas to count as partial credit toward the minor.

#### Program Contact

*Dr. Christopher Buford*  
Undergraduate Advisor, Department of Philosophy  
330-972-6959  
cb72@uakron.edu

The following information has official approval of the **Department of Philosophy** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Philosophy of Science and Religion" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
PHIL:125	Theory & Evidence	3
PHIL:331	Philosophy of Religion	3
PHIL:333	Philosophy of Science and Religion	3
PHIL:464	Philosophy of Science	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select 6 credits of the following:</b>		<b>6</b>
BIOL:316	Evolutionary Biology	
BIOL:428	Biology of Behavior	
ANTH:105	Human Evolution	
ANTH:382	Evolution and Human Behavior	
ENGL:360	Old Testament As Literature	
ENGL:361	The New Testament and Apocrypha as Literature	
GEOL:102	Introductory Historical Geology	
GEOL:360	Paleobiology	
HIST:424	The Renaissance	
HIST:487	Science and Technology in World History	
PHIL:392	Internship in Philosophy <sup>1</sup>	
PHIL:471	Metaphysics	
PHIL:480	Seminar in Philosophy <sup>1</sup>	
PSYC:320	Biopsychology	
PSYC:425	Psychology of Hate	
SOCIO:315	Sociological Social Psychology	
SOCIO:410	Social Structures & Personality	
SOCIO:435	Sociology of Love	
SOCIO:460	Sociological Theory	
Total Hours		6

<sup>1</sup> Must be taken on a science and/or religious topic.

## Philosophy of Science, Minor Minor in Philosophy of Science (360005M)

The Philosophy of Science Minor allows students to study the foundations, methods, and implications of science, and connect them to varying scientific fields. In virtue of its interdisciplinary nature, this program allows designated courses from other disciplines to count as partial credit toward the minor.

#### Program Contact

*Dr. Christopher Buford*  
Undergraduate Advisor, Department of Philosophy

330-972-6959  
cb72@uakron.edu

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The following courses constitute a "Minor in Philosophy of Science" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

## Required Courses

Code	Title	Hours
PHIL:125	Theory & Evidence	3
PHIL:464	Philosophy of Science	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 6 credits of the following:</b>		<b>6</b>
PHIL:170	Introduction to Logic	
PHIL:313	History of Modern Philosophy	
PHIL:323	Advanced Topics in Ethics <sup>1</sup>	
PHIL:333	Philosophy of Science and Religion	
PHIL:361	Biomedical Ethics	
PHIL:371	Philosophy of Mind	
PHIL:374	Symbolic Logic	
PHIL:418	20th Century Analytic Philosophy	
PHIL:461	Neuroethics	
PHIL:462	Theory of Knowledge	
PHIL:471	Metaphysics	
PHIL:480	Seminar in Philosophy <sup>1</sup>	
<b>Select 6 credits of the following:</b>		<b>6</b>
BIOL:211	General Genetics	
BIOL:217	General Ecology	
BIOL:316	Evolutionary Biology	
BIOL:331	Microbiology	
CHEM:305	Physical Chemistry for the Biological Sciences	
CHEM:423	Analytical Chemistry I	
CHEM:424	Analytical Chemistry II	
ANTH:105	Human Evolution	
ANTH:311	Human Paleontology: Genus Homo	

ANTH:405	Anthropological Theory
ANTH:382	Evolution and Human Behavior
ANTH:407	Archaeological Theory
ECON:426	Applied Econometrics
ECON:475	Development of Economic Thought
GEOL:360	Paleobiology
GEOL:462	Macroevolution
HIST:487	Science and Technology in World History
MATH:401	History of Mathematics
STAT:450	Probability
STAT:451	Theoretical Statistics I
STAT:461	Applied Statistics
PHIL:170	Introduction to Logic
PHIL:313	History of Modern Philosophy
PHIL:323	Advanced Topics in Ethics
PHIL:333	Philosophy of Science and Religion
PHIL:361	Biomedical Ethics
PHIL:371	Philosophy of Mind
PHIL:374	Symbolic Logic
PHIL:418	20th Century Analytic Philosophy
PHIL:461	Neuroethics
PHIL:462	Theory of Knowledge
PHIL:471	Metaphysics
PHIL:480	Seminar in Philosophy
PHIL:481	Philosophy of Language
PHYS:261	Physics for Life Sciences I
PHYS:262	Physics for Life Sciences II
PHYS:291	Elementary Classical Physics I
PHYS:292	Elementary Classical Physics II
PSYC:320	Biopsychology
PSYC:340	Social Psychology
PSYC:345	Cognitive Processes
SOCIO:301	Social Research Design
SOCIO:315	Sociological Social Psychology
SOCIO:460	Sociological Theory

Total Hours 12

<sup>1</sup> Must be in a related topic.

# Philosophy, BA

## Bachelor of Arts in Philosophy (36000BA)

More on the Philosophy major (<https://www.uakron.edu/philosophy/academics/philosophy-ba-degree.dot>)

Philosophy students acquire knowledge and skills that can apply to a wide range of fields. Among these are critical thinking and analytical reasoning skills, decision-making skills, the ability to communicate effectively and to make ethical judgements, and the ability to apply knowledge and skills to real-world settings. Philosophy places the greatest value on demonstrated proficiency that cuts across all majors. As a result philosophy graduates achieve long-term career success.

Philosophy graduates often continue their education in graduate, law, or med programs, or obtain positions in wide variety of fields, including education, publishing, marketing, consulting, government, environmental management, public administration, foreign services, law and law enforcement, human resources, insurance, libraries, and religious or social service areas.

#### Program Contact

Dr. Christopher Buford

Undergraduate Advisor, Department of Philosophy

330-972-6959

cb72@uakron.edu

The following information has official approval of **The Department of Philosophy** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Philosophy Core	30
	Additional Credits for Graduation *	42
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

#### Diversity

Domestic Diversity

Global Diversity

#### Integrated and Applied Learning

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## College of Arts & Sciences Requirements

**Code Title Hours**

**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

*Foreign Language* 14

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Philosophy Core

Code	Title	Hours
PHIL:101	Introduction to Philosophy	3
PHIL:120	Introduction to Ethics	3
PHIL:170	Introduction to Logic	3
PHIL:211	History of Ancient Philosophy	3
PHIL:312	History of Medieval Philosophy	3
PHIL:313	History of Modern Philosophy	3
PHIL:3xx/4xx	Philosophy Course	3
PHIL:3xx/4xx	Philosophy Course	3
PHIL:xxx	Philosophy Course	3
PHIL:xxx	Philosophy Course	3
	<b>Total Hours</b>	<b>30</b>

# Philosophy/JD Degree Accelerated, BA

## Bachelor of Arts in Philosophy/Juris Doctor Degree Accelerated (360009BA)

More on the Philosophy Accelerated major (<https://www.uakron.edu/philosophy/academics/>)

This is an accelerated 3+3 BA/JD program that will allow eligible students to earn a Bachelor of Arts in Philosophy and a Juris Doctorate degree in six years (180 total credits). Admission as a freshman requires a high school GPA of 3.4 and an ACT of 25 or SAT of 1220. Maintaining eligibility to move on to the JD phase requires an undergraduate GPA of 3.4 by the mid-point of the junior year and taking the LSAT no later than the first semester of the junior year and achieving a score of at least 150.

### Program Contact

Dr. Christopher Buford

Undergraduate Advisor, Department of Philosophy

330-972-6959

cb72@uakron.edu

The following information has official approval of **The Department of Philosophy, The School of Law and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Philosophy Courses	21
	Philosophy Electives	9
	Electives	13
	First Year Law Courses	29
	<b>Total Hours</b>	<b>120</b>

Note: A GPA of 3.4 overall is needed to complete the degree and 92 credit hours, including all general education and philosophy requirements, must be completed by the conclusion of the junior year.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>

*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## College of Arts & Sciences Requirements

Code	Title	Hours
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**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

<i>Foreign Language</i>	<b>14</b>
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101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Philosophy Courses

Code	Title	Hours
PHIL:101	Introduction to Philosophy	3
PHIL:120	Introduction to Ethics	3
PHIL:170	Introduction to Logic	3
PHIL:211	History of Ancient Philosophy	3
PHIL:312	History of Medieval Philosophy	3
PHIL:313	History of Modern Philosophy	3
PHIL:327	Law and Morality	3
or PHIL:329	Philosophy of International Law	
or PHIL:421	Philosophy of Law	
<b>Total Hours</b>		<b>21</b>



## Philosophy Electives

Code	Title	Hours
<b>Select nine credits, three of which must be at the 300 level:</b>		
PHIL:3xx		3
PHIL:xxx		6
Total Hours		9

## Electives

Code	Title	Hours
<b>Complete 13 credits:</b>		<b>13</b>
xxxx:xxx		
Total Hours		13

## First Year Law Courses

Code	Title	Hours
LAWX:601	Civil Procedure - Federal Jurisdiction	3
LAWX:602	Civil Procedure - Federal Litigation	3
LAWX:607	Criminal Law	3
LAWX:611	Contracts	4
LAWX:619	Legal Analysis, Research, & Writing I (LARW I)	3
LAWX:620	Legal Analysis, Research & Writing II (LARW II)	3
LAWX:625	Torts	4
LAWX:645	Property	4
LAWX:676	Legislation and Regulation	2
Total Hours		29

## Pre-Law Philosophy, Minor

### Minor in Pre-Law Philosophy (360004M)

The Pre-Law Philosophy Minor prepares students interested in pursuing a career in law to hone their logic, reasoning, and analytic abilities – skills required for the study of law. And, since law permeates every aspect of our lives, the interdisciplinary nature of this program allows designated courses from a variety of disciplines across campus to count as partial credit toward the minor.

#### Program Contact

*Dr. Christopher Buford*

*Undergraduate Advisor, Department of Philosophy*

330-972-6959

cb72@uakron.edu

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The following courses constitute a "Minor in Pre-Law Philosophy" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Cannot overlap more than 6 credits if obtaining both a Philosophy major and a Philosophy minor or if obtaining two Philosophy minors. Please refer to the University

Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

## Required Courses

Code	Title	Hours
PHIL:210	Logic for Lawyers	3
PHIL:421	Philosophy of Law	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 3 credits of the following:</b>		<b>3</b>
PHIL:120	Introduction to Ethics	
PHIL:150	Critical Thinking	
PHIL:170	Introduction to Logic	
<b>Select 3 credits of the following:</b>		<b>3</b>
PHIL:324	Social & Political Philosophy	
PHIL:327	Law and Morality	
PHIL:329	Philosophy of International Law	
PHIL:363	Ethics of Policing	
PHIL:374	Symbolic Logic	
<b>Select 6 credits of the following:</b>		<b>6</b>
EMHS:220	Environmental Law & Regulations	
PAFS:301	Civil Rights Movement in America: 1945-1974	
ECON:405	Economics of the Public Sector	
ENGL:376	Legal Writing	
GEOG:432	Land Use Planning Law	
HIST:452	American Revolutionary Era	
HIST:453	The Early American Republic	
PHIL:324	Social & Political Philosophy	
PHIL:327	Law and Morality	
PHIL:329	Philosophy of International Law	
PHIL:361	Biomedical Ethics	
PHIL:362	Business Ethics	
PHIL:363	Ethics of Policing	
PHIL:374	Symbolic Logic	
PHIL:418	20th Century Analytic Philosophy	
POLIT:302	American Political Ideas	
POLIT:313	International Law	
POLIT:334	Law, Mediation, and Violence	
POLIT:335	Law & Society	
POLIT:360	The Judicial Process	
POLIT:361	Politics of the Criminal Justice System	
POLIT:363	Crime, Punishment, Politics: A Comparative Perspective	
POLIT:406	Comparative Constitutional Law	

POLIT:461	The Supreme Court & Constitutional Law
POLIT:462	The Supreme Court & Civil Liberties
POLIT:483	Constitutional Problems in Criminal Justice
PSYC:440	Personnel Psychology & the Law
CHFD:300	Legal Environment of Families
CRJU:275	Legal Aspects of Corrections
CRJU:287	The Legal System and Psychology
CRJU:302	Theory of Criminal Law
SOCIO:330	Criminology
SOCIO:441	Sociology of Law
BLAW:220	Legal & Social Environment of Business
BLAW:323	International Business Law
COMM:245	Argumentation
COMM:352	Persuasion
COMM:364	Legal Issues in Media
SOWK:470	Law for Social Workers
Total Hours	12

## Physics

Physics is a natural science that seeks to understand matter and interactions in space and time. A good understanding of physics is essential for students who plan to contribute to our knowledge of the natural world and to the development of emerging technologies.

The Physics Department of the University of Akron consists of 5 full-time faculty members teaching a range of courses for students studying in other fields.

All of our faculty are active in research and try to involve students in research as soon as possible so they can gain valuable experience. Several of our faculty have joint appointments in Ph.D.-granting departments whose research interests overlap with ours. This offers considerable scope for interdisciplinary research.

- Physics, Minor (p. 326)

## Physics (PHYS)

### PHYS:130 Descriptive Astronomy (4 Credits)

Qualitative introduction to astronomy, intended primarily as a first science course for non-science majors. Includes laboratory and observational activities. (Formerly 3650:130)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### PHYS:133 Music, Sound & Physics (4 Credits)

Qualitative introduction to the physics of sound, its properties, perception and reproduction, including acoustical principles of musical instruments. Laboratory and observational activities included. (Formerly 3650:133)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### PHYS:137 Light (4 Credits)

Introductory, qualitative course dealing with the nature of light and the interaction of light with various materials to produce common visual effects. Laboratory activities provide experience in scientific investigation. (Formerly 3650:137)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### PHYS:150 Manufacturing Physics (4 Credits)

Prerequisite: Admission to the Manufacturing Engineering Technology program. Corequisite: MATH 154. Applications of physics to manufacturing including two dimensional motion, vectors, forces, statics, torque and simple electronic circuits. Laboratory. (Formerly 3650:150)

### PHYS:160 Technical Physics: Mechanics (4 Credits)

Corequisite: MATH 154. Applications of mechanics which include one and two dimensional motion, vectors, forces, equilibrium, work, power, conservation of energy, rotational motion & torque. Laboratory (Formerly 3650:160)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

### PHYS:161 Technical Physics: Mechanics I (2 Credits)

Corequisite: MATH 153. Principles of mechanics that include motion, vectors, forces, equilibrium; also significant figures and unit conversions. Laboratory. (Formerly 3650:161)

**Gen Ed:** - Natural Science w/LAB

### PHYS:162 Technical Physics: Mechanics II (2 Credits)

Prerequisites: MATH 153 and PHYS 161. Principles of mechanics that include work, power, conservation of energy, rotational motion, torque. Laboratory. (Formerly 3650:162)

**Gen Ed:** - Natural Science w/LAB

### PHYS:163 Technical Physics: Electricity & Magnetism (2 Credits)

Prerequisites: MATH 154 and PHYS 160 with a grade of C- or better in both. Principles and applications of electricity and magnetism. Electrostatics, DC circuits, magnetism, electromagnetism, and AC circuits. Laboratory. (Formerly 3650:163)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

### PHYS:164 Technical Physics: Heat & Light (2 Credits)

Prerequisites: [PHYS 160 with a grade of C- or better] and MATH 154. Principles and applications of heat and light: heat energy, thermodynamics, electromagnetic waves, geometric and physical optics, introduction to quantum mechanics, and radiation. (Formerly 3650:164)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

### PHYS:261 Physics for Life Sciences I (4 Credits)

Prerequisites: high school algebra, trigonometry or placement test or appropriate AP score or MATH 154 or MATH 149 as corequisite.

Introductory course for professional work in biology and health professions and services. Emphasizes life science applications. Mechanics: laws of motion, force, torque, work, energy, power; properties of matter: gases, liquids, solids, fluid mechanics. Includes laboratory activities. (Formerly 3650:261)

**Gen Ed:** - Natural Science w/LAB

### PHYS:262 Physics for Life Sciences II (4 Credits)

Prerequisite: PHYS 160 or PHYS 261. Laws of thermodynamics, kinetic theory. Wave phenomena: sound, light, optics; electricity and magnetism; atomic and nuclear physics; radioactivity. Includes laboratory activities. (Formerly 3650:262)

**Gen Ed:** - Natural Science w/LAB

### PHYS:267 Life Science Physics Computations I (1 Credit)

Corequisites: PHYS 261. Optional companion courses to PHYS 261 and PHYS 262 provides additional computational experience in applications of physics to life sciences, emphasizing use of algebra and trigonometry. Particularly recommended for student with modest mathematical preparation. (Formerly 3650:267)

**PHYS:268 Life Science Physics Computations II (1 Credit)**

Corequisites: PHYS 262. Optional companion courses to PHYS 261 and PHYS 262 provides additional computational experience in applications of physics to life sciences, emphasizing use of algebra and trigonometry. Particularly recommended for student with modest mathematical preparation. (Formerly 3650:268)

**PHYS:291 Elementary Classical Physics I (4 Credits)**

Prerequisite: Completion of MATH 221 with a grade of "C-" or better, or AP Calculus AB, or BC test score of 3 or better. Introductory physics for students of science and engineering. Classical kinematics and dynamics as related to contemporary physics. Oscillations, thermodynamics. Vectors and some calculus introduced as needed. Includes laboratory activities. (Formerly 3650:291)

**Gen Ed:** - Natural Science w/LAB

**PHYS:292 Elementary Classical Physics II (4 Credits)**

Prerequisite: PHYS 291. Fluid mechanics, mechanical and electromagnetic waves and wave phenomena, basic laws of electromagnetism, interference and diffraction, coherence, geometrical and physical optics. Includes laboratory activities. (Formerly 3650:292)

**Gen Ed:** - Natural Science w/LAB

**PHYS:293 Physics Computations I (1 Credit)**

Corequisite: PHYS 291. Optional companion courses to PHYS 291 and PHYS 292 provides experience in problem solving, and elaborates application of calculus to simple physical phenomena. Particularly recommended for a freshman and for student with modest preparation in mathematics or physical sciences. (Formerly 3650:293)

**PHYS:294 Physics Computations II (1 Credit)**

Corequisite: PHYS 292. Optional companion courses to PHYS 291 and PHYS 292 provides experience in problem solving, and elaborates application of calculus to simple physical phenomena. Particularly recommended for a freshman and for student with modest preparation in mathematics or physical sciences. (Formerly 3650:294)

**PHYS:301 Modern Physics (3 Credits)**

Prerequisite: PHYS 292. Special relativity, introduction to quantum physics, hydrogen atom, atomic physics, selected applications of quantum physics. (Formerly 3650:301)

**PHYS:322 Intermediate Laboratory I (3 Credits)**

Prerequisites: [PHYS 262 and MATH 221] or PHYS 292. Modern physics experiments focusing on electronic phenomena such as: electron charge/mass ratio, semiconductor devices, superconductivity, and energy quantization. (Formerly 3650:322)

**PHYS:323 Intermediate Laboratory II (3 Credits)**

Prerequisites: [PHYS 262 and MATH 221] or PHYS 292. Contemporary experiments focusing on optical phenomena such as: interference, diffraction, holography, fiber optics, and spectroscopy. (Formerly 3650:323)

**PHYS:340 Thermal Physics (3 Credits)**

Prerequisite: PHYS 262 or PHYS 292. Basic principles of thermal and statistical physics. Ensembles, laws of thermodynamics, equilibrium, irreversibility, equipartition theorem, canonical distribution, Maxwell distribution, phase changes, cyclic processes, transport processes. (Formerly 3650:340)

**PHYS:350 Modeling & Simulation (4 Credits)**

Prerequisites: [PHYS 262 or PHYS 292] and MATH 221. Corequisite: MATH 222. Interdisciplinary course stressing modeling of natural phenomena using fundamental principles and their simulation. Topics may include oscillations and chaos, random systems, potentials and fields, wave phenomena. (Formerly 3650:350)

**PHYS:399 Undergraduate Research (1-6 Credits)**

(May be repeated) Prerequisite: Permission of instructor. Participation in current research project in department under supervision of faculty member. (Formerly 3650:399)

**PHYS:401 Everyday Physics (4 Credits)**

Prerequisite: Permission of instructor. College-level physics content for future teachers. Inquiry, discovery, activities, discussion, and experiential learning take place in a laboratory/embedded-lecture environment. (Formerly 3650:401)

**PHYS:406 Elements of Optics (3 Credits)**

Prerequisites: PHYS 292 and MATH 335. Selected topics in optics such as geometrical, wave (diffraction and interference, polarization, scattering etc.), and quantum optics (lasers); design of optical systems based on optical design platforms.

**PHYS:431 Mechanics (3 Credits)**

Prerequisites: PHYS 291 and MATH 335. Mechanics at an intermediate level. Newtonian mechanics, motion of a point particle, momentum and energy, oscillations, Lagrange's equations, central force problems, non-inertial frames, rotation of rigid bodies, coupled oscillators and normal modes. (Formerly 3650:431)

**PHYS:432 Mechanics II (3 Credits)**

Prerequisite: PHYS 431. Advanced mechanics at the senior or beginning graduate level, moving coordinate systems, mechanics of continuous media, Lagrange's equations, tensor algebra and stress analysis, rotation of rigid bodies, vibration theory. (Formerly 3650:432)

**PHYS:436 Electromagnetism (3 Credits)**

Prerequisites: PHYS 292 and MATH 335 or permission of instructor. Electricity and magnetism using vector calculus. Electrostatics and magnetostatics, electric and magnetic fields, dielectric and magnetic materials, electromagnetic induction, Maxwell's field equations in differential form, wave solutions. (Formerly 3650:436)

**PHYS:437 Electromagnetism II (3 Credits)**

Prerequisite: PHYS 436. Special relativity, four vectors, Maxwell's equations in covariant form; propagation, reflection and refraction of electromagnetic waves; multipole radiation. (Formerly 3650:437)

**PHYS:441 Quantum Physics (3 Credits)**

Prerequisites: PHYS 301 and MATH 335. Introduction to quantum theory, Schrödinger equation, observables, angular momentum, perturbation theory, variational principle, bound states, scattering theory, radiative interactions, spin, Pauli Exclusion Principle, applications of quantum mechanics to atomic, nuclear and solid state physics. (Formerly 3650:441)

**PHYS:442 Quantum Physics II (3 Credits)**

Prerequisite: PHYS 441. Applications of quantum mechanics to atomic, nuclear and solid state physics. Tunneling and alpha decay, periodic potential, hydrogen and helium atoms, interatomic forces, quantum statistics. (Formerly 3650:442)

**PHYS:451 Advanced Laboratory (3 Credits)**

Prerequisite: PHYS 323. Experimental techniques, applicable to research-type projects in contemporary physics. Advanced scanning probe techniques including atomic force microscopy, electrostatic nanolithography, radioactive spectroscopy, and lasers. (Formerly 3650:451)

**PHYS:452 Advanced Laboratory II (3 Credits)**

Prerequisite: PHYS 323 or permission of instructor. Experimental projects applicable to contemporary physics. Diode and dye lasers, NMR, SPM, chaos, electron tunneling and fiber optics. (Formerly 3650:452)

**PHYS:470 Introduction to Solid-State Physics (3 Credits)**

Prerequisite: PHYS 441. Account of basic physical processes occurring in solids, with emphasis on fundamental relation between these processes and periodicity of crystalline lattice. (Formerly 3650:470)

**PHYS:481 Methods of Mathematical Physics (3 Credits)**

Prerequisites: PHYS 292 and MATH 335. Survey of mathematical techniques useful in physics. Matrices, eigenvalues, vector analysis, ordinary and partial differential equations, Green's functions, complex variable theory, Fourier series, integral transforms. (Formerly 3650:481)

**PHYS:482 Methods of Mathematical Physics II (3 Credits)**

Prerequisites: PHYS 292, MATH 335 and senior or graduate standing in a physical science or engineering. Vectors, generalized coordinates, tensors, calculus of variations, vector spaces, linear transformations, matrices, eigenvalues, Hilbert space, boundary value problems, transcendental functions, complex variables, analytic functions, Green's functions, integral equations. (Formerly 3650:482)

**PHYS:488 Selected Topics: Physics (1-4 Credits)**

(May be repeated) Prerequisite: Permission. Consideration of selected topics, procedures, techniques, materials or apparatus of current interest in physics. (Formerly 3650:488)

**PHYS:490 Workshop: Physics (1-4 Credits)**

(May be repeated) Group studies of special topics in physics. May not be used to meet undergraduate or graduate major requirements in physics. May be used for elective credit only. (Formerly 3650:490)

**PHYS:491 Capstone Project in Physics A (2 Credits)**

Prerequisites: PHYS 301 and MATH 335 and permission. Proposal phase of a capstone research project in physics or a research topic relevant to physics, supervised by a faculty member of the department.

**Gen Ed:** - Capstone

**PHYS:492 Capstone Project in Physics B (2-4 Credits)**

Prerequisite: Permission. Pre/Corequisite: PHYS 491. Final phase of a capstone research project in physics or a research topic relevant to physics, supervised by a faculty member of the department. (Formerly 3650:492)

**PHYS:497 Independent Study: Physics (1-4 Credits)**

(May be repeated) Prerequisite: Permission. Further investigations of various selected topics in physics, under guidance of faculty member. (Formerly 3650:497)

**PHYS:498 Physics Colloquium (1 Credit)**

Lectures on current research topics in physics by invited speakers. May be repeated but only one credit counts toward the M.S. Degree. Offered on a credit/noncredit basis only. (Formerly 3650:498)

**PHYS:501 Everyday Physics (4 Credits)**

Prerequisite: Permission of instructor. College-level physics content for future teachers. Inquiry, discovery, activities, discussion, and experiential learning take place in a laboratory/embedded-lecture environment. (Formerly 3650:501)

**PHYS:506 Elements of Optics (3 Credits)**

Prerequisite: Permission of instructor. Selected topics in optics such as geometrical, wave (diffraction and interference, polarization, scattering etc.), and quantum optics (lasers); design of optical systems based on optical design platforms. (Formerly 3650:506)

**PHYS:531 Mechanics (3 Credits)**

Prerequisite: Permission of instructor. Mechanics at an intermediate level. Newtonian mechanics, motion of a point particle, momentum and energy, oscillations, Lagrange's equations, central force problems, non-inertial frames, rotation of rigid bodies, coupled oscillators and normal modes. (Formerly 3650:531)

**PHYS:532 Mechanics II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Advanced mechanics at the senior or beginning graduate level, moving coordinate systems, mechanics of continuous media. Lagrange's equations, tensor algebra and stress analysis, rotation of rigid bodies, vibration theory. (Formerly 3650:532)

**PHYS:536 Electromagnetism (3 Credits)**

Prerequisite: Permission of instructor. Electricity and magnetism using vector calculus. Electrostatics and magnetostatics, electric and magnetic fields, dielectric and magnetic materials, electromagnetic induction, Maxwell's field equations in differential form, wave solutions. (Formerly 3650:536)

**PHYS:537 Electromagnetism II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Special relativity, four vectors, Maxwell's equations in covariant form; propagation, reflection and refraction of electromagnetic waves; multipole radiation. (Formerly 3650:537)

**PHYS:541 Quantum Physics (3 Credits)**

Prerequisite: Permission of instructor. Introduction to quantum theory, Schrödinger equation, observables, angular momentum, perturbation theory, variational principle, bound states, scattering theory, radiative interactions, spin, Pauli Exclusion Principle, applications of quantum mechanics to atomic, nuclear and solid state physics. (Formerly 3650:541)

**PHYS:542 Quantum Physics II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Applications of quantum mechanics to atomic, nuclear and solid state physics. Tunneling and alpha decay, periodic potential, Hydrogen and Helium atoms, interatomic forces, quantum statistics. (Formerly 3650:542)

**PHYS:551 Advanced Laboratory (3 Credits)**

Prerequisite: Permission of instructor. Experimental techniques, applicable to research-type projects in contemporary physics. Advanced scanning probe techniques including atomic force microscopy, electrostatic nanolithography, radioactive spectroscopy, and lasers. (Formerly 3650:551)

**PHYS:552 Advanced Laboratory II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Experimental projects applicable to contemporary physics. Diode and dye lasers, laser feedback, chaos, NMR, electron tunneling, and fiber optics. (Formerly 3650:552)

**PHYS:556 Techniques of Physics Instruction (1.00 Credits)**

Teaching assistants are introduced to current research in learning physics, shown applications for their labroom, and trained in skills needed as a laboratory teaching assistant. (Formerly 3650:556)

**PHYS:570 Introduction to Solid-State Physics (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Account of basic physical processes occurring in solids, with emphasis on fundamental relation between these processes and periodicity of crystalline lattice. (Formerly 3650:570)

**PHYS:581 Methods of Mathematical Physics (3 Credits)**

Prerequisite: Permission of instructor. Survey of mathematical techniques useful in physics. Matrices, eigenvalues, vector analysis, ordinary and partial differential equations, Green's functions, complex variable theory, Fourier series, integral transforms. (Formerly 3650:581)

**PHYS:582 Methods of Mathematical Physics II (3 Credits)**

Prerequisite: admission to Physics Master's program or permission. Vectors, generalized coordinates, tensors, calculus of variations, vector spaces, linear transformations, matrices, eigenvalues, Hilbert space, boundary value problems, transcendental functions, complex variables, analytic functions, Green's functions, integral equations. (Formerly 3650:582)

**PHYS:588 Selected Topics: Physics (1-4 Credits)**

(May be repeated) Prerequisite: Permission. Consideration of selected topics, procedures, techniques, materials or apparatus of current interest in physics. (Formerly 3650:588)

**PHYS:590 Workshop: Physics (1-4 Credits)**

(May be repeated.) Prerequisite: Permission. Further investigations of various selected topics in physics, under guidance of faculty member. (Formerly 3650:590)

**PHYS:597 Independent Study: Physics (1-4 Credits)**

(May be repeated.) Prerequisite: Permission. Further investigations of various selected topics in physics, under guidance of faculty member. (Formerly 3650:597)

**PHYS:598 Physics Colloquium (1 Credit)**

Lectures on current research topics in physics by invited speakers. May be repeated, but only one credit counts toward M.S. degree. Credit/Noncredit. (Formerly 3650:598)

**PHYS:605 Computer Physics: Numerical Solutions to Physics Problems I (3 Credits)**

Prerequisite: Permission. Review of FORTRAN and basic topics in computer science. Numerical solutions to physics problems, including Newton's and Schrodinger's equations. Treatment and reduction of experimental data, plotting, simulation. (Formerly 3650:605)

**PHYS:606 Computer Physics: Numerical Solutions to Physics Problems II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Data reduction, Calcomp plotting, comparison of theoretical models with data, linear and non-linear least squares curve-fitting. May accommodate scientific problems of individual interest. (Formerly 3650:606)

**PHYS:615 Electromagnetic Theory I (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Electrostatics and magnetostatics at advanced level for graduate students, boundary value problems, dielectrics, multipole expansions, time-varying fields, Maxwell's equations and electromagnetic waves, reflection, refraction, wave guides and cavities. (Formerly 3650:615)

**PHYS:616 Electromagnetic Theory II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Scattering and diffraction, plasma physics, special theory of relativity, dynamics of relativistic particles in fields, collisions of charged particles, radiation from moving charges, bremsstrahlung, multipole fields. (Formerly 3650:616)

**PHYS:625 Quantum Mechanics I (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Basic concepts of quantum mechanics, representation theory, particle in a central field, addition of angular momenta and spins, Clebsch-Gordon coefficients, perturbation theory, scattering, transition probabilities. (Formerly 3650:625)

**PHYS:626 Quantum Mechanics II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Foundations of relativistic quantum mechanics. Klein-Gordon and Dirac equations, spin-zero and spin-1/2 particles in electromagnetic field, second quantization of bosons and fermions, superfluidity and super conductivity. (Formerly 3650:626)

**PHYS:630 Advanced Laboratory Techniques of Materials Characterization (3 Credits)**

Prerequisite: Admission to the physics master's program or permission. This course focuses on the characterization of thin films and surfaces of materials. Techniques include Atomic Force Microscopy, UV-visible, FTIR, Photoluminescence, and Electron Tunneling spectroscopies. (Formerly 3650:630)

**PHYS:631 Quantum Mechanics of Molecules and Materials (3 Credits)**

Prerequisite: Admission to the physics master's program or permission. An applied quantum mechanics course that is also relevant for engineers, materials scientist, and applied physicists. (Formerly 3650:631)

**PHYS:632 Thermodynamics and Statistical Mechanics of Materials (3 Credits)**

Prerequisite: Admission to the physics master's program or permission. Fundamental laws of thermodynamics and their applications to material systems; criteria for equilibrium; the statistical mechanics of solids. (Formerly 3650:632)

**PHYS:641 Lagrangian Mechanics (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Principle of least action and Lagrangian equation of motion, conservation laws, integration of equation of motion, collisions, small oscillations, Hamilton's equations, canonical transformations. (Formerly 3650:641)

**PHYS:661 Statistical Mechanics (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Fundamental principles of statistical mechanics, Gibbs, Fermi and Bose Statistics, solids, liquids, gases, phase equilibrium, chemical reactions. (Formerly 3650:661)

**PHYS:662 Thermodynamics & Statistical Mechanics II (3 Credits)**

See department for course description. (Formerly 3650:662)

**PHYS:670 Biological Physics (3 Credits)**

Prerequisite: Admission to the physics master's program or permission. Explores the physics of biological systems, especially on the molecular scale: structural properties and transport processes, self-assembly, and molecular motors. (Formerly 3650:670)

**PHYS:671 Computational Materials Physics (3 Credits)**

Prerequisites: Admission to the physics master's program or permission. Introduces current computational techniques including computer simulations to investigate structural and transport properties of condensed matter systems. (Formerly 3650:671)

**PHYS:672 Nanomaterials (3 Credits)**

Prerequisites: Admission to the physics master's program or permission. Structures and characterizations of nanomaterials. Physical properties of nanomaterials. Carbon based nanomaterials. Nanoscale device applications. (Formerly 3650:672)

**PHYS:673 Advanced Condensed Matter Physics (3 Credits)**

Prerequisite: Admission to the physics master's program or permission. Response of materials to external perturbations (e.g. electromagnetic radiation); elementary excitations; semiconductors; magnetism; superconductivity. (Formerly 3650:673)

**PHYS:674 Physics of Photonics (3 Credits)**

Prerequisites: Admission to the physics master's program or permission. This theoretical course focuses on understanding the physics of photonics and light-matter interactions, with potential applications to many interdisciplinary areas of science and technology. (Formerly 3650:674)

**PHYS:685 Solid-State Physics I (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Theory of physics of crystalline solids. Properties of reciprocal lattice and Bloch's theorem. Lattice dynamics and specific heat. Electron states; cellular method, tight-binding method, Green's function method. (Formerly 3650:685)

**PHYS:686 Solid-State Physics II (3 Credits)**

Prerequisite: Admission to Physics Master's program or permission. Orthogonalized plane and pseudo potentials. Electron-electron interaction; screening by impurities. Friedel sum rule and plasma oscillations. Dynamics of electrons, transport properties and Fermi surface. (Formerly 3650:686)

**PHYS:689 Special Problems in Theoretical Physics (1-4 Credits)**

(May be repeated.) Prerequisite: Permission. Intended to facilitate expansion of particular areas of interest in theoretical physics, by consultation with faculty member and independent study beyond available course work. (Formerly 3650:689)

**PHYS:691 Seminar in Theoretical Physics (1-3 Credits)**

(May be repeated.) Prerequisite: Permission. (Formerly 3650:691)

**PHYS:697 Graduate Research in Physics (1-5 Credits)**

Prerequisite: Permission. Candidates for M.S. degree may obtain up to five credits for faculty supervised research projects. Grades and credit received at completion of such projects. (Formerly 3650:697)

**PHYS:698 Special Topics in Physics (1-4 Credits)**

Prerequisite: Permission. Enables student who needs information in special areas, in which no formal course is offered, to acquire knowledge in these areas. (Formerly 3650:698)

**PHYS:699 Master's Thesis (1 Credit)**

Prerequisite: Permission. With approval of department, one credit may be earned by candidate for M.S. degree upon satisfactory completion of a master's thesis. (Formerly 3650:699)

**PHYS:710 Surface Physics (3 Credits)**

Prerequisite: PHYS 470. An interdisciplinary course stressing the fundamentals and applications of physics at surfaces, including corrosion, catalysis, adhesion, and tribology. (Formerly 3650:710)

**PHYS:769 Critical Phenomena & Phase Transitions (3 Credits)**

Prerequisites: PHYS 625, PHYS 641, and PHYS 661. Modern theory of critical phenomena. Landau theory. Spin systems, binary mixtures, polymers and liquid crystals. Multicomponent systems. Multicritical points. Renormalization. Epsilon-expansions of critical exponents. (Formerly 3650:769)

**PHYS:879 Doctoral Research (1-15 Credits)**

(May be repeated.) Prerequisite: Approval of the Student Advisory Committee for Ph.D. research in physics, physical chemistry, polymer science, applied mathematics or electrical engineering. Original research by a Ph.D. candidate in various disciplines under the guidance of physics faculty. (Formerly 3650:879)

## Physics, Minor

### Minor in Physics (365000M)

Physics provides the foundation for a broad range of technical fields. The Minor in Physics is designed for majors in science, engineering, mathematics, and education who have an interest in physics beyond the introductory level. This minor includes a set of classes that will deepen your understanding of fundamental principles and introduce you to new concepts that lie at the heart of emerging technologies.

The following information has official approval of the **Department of Physics and The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Physics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Required Courses		15
Electives		7
Total Hours		22

### Required Courses

Code	Title	Hours
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
PHYS:301	Modern Physics	3
MATH:222	Analytic Geometry-Calculus II	4
Total Hours		15

### Electives

Code	Title	Hours
Select 7 credits of approved 300/400 level physical sciences electives <sup>1</sup>		7
Total Hours		7

<sup>1</sup> At least 6 credits must be Physics (PHYS) courses

## Political Science

Successful graduates of this program go on to graduate or law school, manage campaigns, run for office, work in state and local government or for various federal government agencies, including the U.S. Marshall's Office, U.S. State Department, Federal Bureau of Investigation, Environmental Protection Agency, and Amnesty International.

## Statement of Policies – Admission

For students enrolled at The University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from other

institutions, the following criteria must be satisfied for admission to the Department of Political Science:

- The student must be admissible to Buchtel College of Arts and Sciences
- A minimum grade point average of 2.20 must be met in all university work, including transfer credits
- A minimum grade point average of 2.20 must be met in all work in Political Science, including university and transfer credits. Only credits earned at an accredited institution of post-secondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.

## Retention

Students in the Political Science programs must maintain a minimum grade point average of 2.20 overall and a minimum of 2.20 grade point average in Political Science courses (including transfer credit) in order to remain in the program. A student who fails to maintain the 2.20 cumulative average (including transfer credit) will be placed on academic probation. Failure to raise the average after one semester will result in dismissal from the program. The student may not apply for readmission for at least one semester.

- American Politics, Minor (p. 330)
- Applied Political Communication, Certificate (p. 331)
- Applied Politics, Certificate (p. 331)
- Comparative Politics, Minor (p. 332)
- Criminal Justice, Minor (p. 333)
- Political Science, BA (p. 333)
- Political Science, National Security, BA (p. 335)
- Political Science/JD Degree Accelerated, BA (p. 336)
- Pre-Law, Minor (p. 338)
- Security Studies, Minor (p. 339)

## Political Science (POLIT)

### **POLIT:100 Government & Politics in the United States (3 Credits)**

Examination of American political system with emphasis on fundamental principles, ideas, institutions and processes of modern government.

Lecture and discussion sections (day classes only). (Formerly 3700:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

### **POLIT:150 World Politics & Government (3 Credits)**

Introduction to international politics and an examination of the governments and foreign policies of selected states from a comparative perspective. (Formerly 3700:150)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

### **POLIT:203 Introduction to Political Thought (3 Credits)**

Survey of major ideas and concepts of Western political theory from pre-Socrates through period of Enlightenment. (Formerly 3700:303)

### **POLIT:210 State & Local Government & Politics (3 Credits)**

Examination of institutions, processes and intergovernmental relations at state and local levels. (Formerly 3700:210)

### **POLIT:300 Comparative Politics (3 Credits)**

Introduction to comparative political analysis; description of political systems of Great Britain, France, Germany and Soviet Union; contrast between democracy and totalitarianism. (Formerly 3700:300)

**Gen Ed:** - Global Diversity

### **POLIT:301 Introduction to Political Research (3 Credits)**

Introduction to the research process in political science through an introduction to the logic of social science inquiry and contemporary techniques of analysis. (Formerly 3700:301)

### **POLIT:302 American Political Ideas (3 Credits)**

Study of major thinkers and writers of American political thought. (Formerly 3700:302)

### **POLIT:304 Modern Political Thought (3 Credits)**

Examination of central concepts of political thought from 19th Century to present. Modern liberalism, communism, fascism and totalitarianism emphasized. (Formerly 3700:304)

### **POLIT:310 International Politics & Institutions (3 Credits)**

Relations among nations examined in political context. (Formerly 3700:310)

### **POLIT:311 Developing States in World Politics (3 Credits)**

Examines how developing states are conditioned by the global system and how they attempt to modify it. (Formerly 3700:311)

### **POLIT:313 International Law (3 Credits)**

Prerequisite: POLIT 150 or POLIT 310. This course explores law at the international level and will focus on diplomacy, treaties, covenants, laws of war, and the legal role of international organizations. (Formerly 3700:313)

### **POLIT:321 European Politics (3 Credits)**

Description and analysis of government and politics of France, Germany, Italy, the United Kingdom, and Russia, with appropriate references to the European Union. (Formerly 3700:321)

### **POLIT:326 Politics of Developing Nations (3 Credits)**

General introduction to concepts and theories of political development and political institutions, elite-recruitment and political processes of selected emerging nations. (Formerly 3700:326)

### **POLIT:328 American Foreign Policy Process (3 Credits)**

Examination of American foreign policy-making process; public opinion and other limitations on policy; specific contemporary problems in selected foreign policy areas. (Formerly 3700:328)

### **POLIT:333 Social Entrepreneurship (3 Credits)**

Scholarly analysis of successful social and political entrepreneur's efforts to address real world problems and an interdisciplinary analysis of the strategies and skills they deploy. (Formerly 3700:333)

### **POLIT:334 Law, Mediation, and Violence (3 Credits)**

A critical analysis of the practical challenges central to learning to better prevent, resolve, or reduce the harms associated with conflict. (Formerly 3700:334)

### **POLIT:335 Law & Society (3 Credits)**

This course will examine how law constructs and constrains political conflict, and how legal institutions mediate, reinforce, and challenge existing power relationships. (Formerly 3700:335)

### **POLIT:337 Terrorism: Perpetrators, Politics and Response (3 Credits)**

Survey of terrorist organizations, political implications of terrorism, and governmental response to terrorism. (Formerly 3700:337)

**POLIT:339 Terrorism and the Constitution (3 Credits)**

Primary goals include learning about the balance courts try to strike in safeguarding public safety and respect for personal freedom in a constitutional republic. (Formerly 3700:339)

**POLIT:341 The American Congress (3 Credits)**

Examination of structure and function of Congress, with comparative materials on legislative process on all levels. Presidential and congressional conflict examined. (Formerly 3700:341)

**POLIT:345 World Politics in Film (3 Credits)**

This course examines the political meaning and content of films. Themes investigated include war, the nuclear age and its consequences, postindustrial society, the future, and unemployment. (Formerly 3700:345)

**POLIT:346 American Politics in Film (3 Credits)**

Examines the portrayal and representation of American politics through cinema. Emphasis on the positive and negative roles that movies play in educating the public. (Formerly 3700:346)

**POLIT:350 The American Presidency (3 Credits)**

The presidency as focal point of politics, policy and leadership in American political system. (Formerly 3700:350)

**POLIT:351 Inside the White House (3 Credits)**

The course looks behind the curtain at the inner-workings of the White House. Topics include: physical structure of the White House, travel, protection, and staff. (Formerly 3700:351)

**POLIT:353 Future International Threats (3 Credits)**

A study of future threats through the use of scenario construction and future projections. (Formerly 3700:353)

**POLIT:360 The Judicial Process (3 Credits)**

Role of police, lawyers, courts and judges in context of American political process. Structure and process of judicial policy making and limitations on judicial power. (Formerly 3700:360)

**POLIT:361 Politics of the Criminal Justice System (3 Credits)**

Examines the impact of the political process and political institutions on criminal law and policy. (Formerly 3700:361)

**POLIT:363 Crime, Punishment, Politics: A Comparative Perspective (3 Credits)**

Comparative study of the structures, practices, power relationships, and politics in various criminal justice systems. (Formerly 3700:363)

**POLIT:370 Public Administration: Concepts & Practices (3 Credits)**

Examines current administrative theories and their application in public bureaucracies. Emphasis is placed on practices to improve the quality of public sector administration. (Formerly 3700:370)

**POLIT:375 Women in Politics (3 Credits)**

Course examines the past, present, and future role of women in politics. (Formerly 3700:375)

**POLIT:381 State Politics (3 Credits)**

Analysis of the state political process in terms of its capacity to deal with a wide range of socioeconomic problems. Special emphasis on legislators, administrators, parties and interest groups. (Formerly 3700:381)

**POLIT:391 Honors in Political Science (3 Credits)**

Prerequisites: at least 17 credits and a 3.25 average in political science and permission of adviser. (Formerly 3700:391)

**POLIT:392 Selected Topics in Political Science (1-3 Credits)**

(May be repeated, but no more than three credits can be applied to major in political science) Topics of substantial current importance, specialized topics within political science or experimental courses. (Formerly 3700:392)

**POLIT:395 Internship in Government & Politics (2-9 Credits)**

(May be taken twice for a total of nine hours. No more than four credits may be applied toward major in political science.) Prerequisite: Completion of 3 courses with a 2.20 GPA in political science. Supervised individual placement with political office holders, party groups, governmental agencies, law firms and other organizations providing professional-level work. (Formerly 3700:395)

**POLIT:397 Independent Study: Political Science (1-4 Credits)**

(May be repeated for a total of four credits) Prerequisites: Minimum academic standing of a Senior and a 3.00 GPA. (Formerly 3700:397)

**POLIT:400 Political Extremism & Violence (3 Credits)**

This course examines the causes and consequences of political extremism and political violence in democracies and failed democracies. (Formerly 3700:400)

**POLIT:401 Advanced Topics in Research Methods (3-6 Credits)**

Prerequisite: POLIT 301 or SOCIO 301. Special advanced topics of interest in research methods. This course can be taken twice if topics are different, for six credits total. (Formerly 3700:401)

**POLIT:402 Politics and the Media (3 Credits)**

Examination of relationships between the press, the news media and political decision makers. (Formerly 3700:402)

**POLIT:403 Media, Crime and Public Opinion (3 Credits)**

Examines the social construction of crime in mass media and how it impacts public, including fear of crime, beliefs about crime causation, and crime policy. (Formerly 3700:403)

**POLIT:405 Politics in the Middle East (3 Credits)**

The rise of the state system in the Middle East after World War I; an analysis of the socio-cultural, ideological forces influencing the political behavior of the people of the Middle East. In-depth study of selected political systems. (Formerly 3700:405)

**POLIT:406 Comparative Constitutional Law (3 Credits)**

This course will explore the essential principles and theories of law and constitutionalism and then apply them, comparatively, to several different constitutional traditions from various regions of the world. (Formerly 3700:406)

**POLIT:410 International Security Policy (3 Credits)**

Prerequisite: POLIT 310 or HIST 461. Introduction to political uses of military forces. Major focus on methodological, conceptual, and ethical dilemmas confronted in developing and implementing security policy. (Formerly 3700:410)

**POLIT:413 Global Public Health Threats (3 Credits)**

An introduction to comparative global biological and public health security policy. Topics include: infectious disease outbreaks, bioterrorism, and potential "nano-terrorism." (Formerly 3700:413)

**POLIT:414 Wealth and Power Among Nations (3 Credits)**

Studies relationship between politics and economy; mesh theoretical perspectives with exploration of key empirical issues. Topics: trade, relations, unions, finance, development, aid, sanctions. (Formerly 3700:414)



**POLIT:417 Environmental Security and Climate Politics (3 Credits)**

The course examines the relationship between the politics of climate change and environmental security. Students will examine a wide range of environmental security issues and will assess the effectiveness of efforts to resolve these issues. (Formerly 3700:417)

**POLIT:418 Weapons of Mass Destruction (3 Credits)**

An exploration of the development and proliferation of weapons of mass destruction and their use and potential use by nation states, extremist groups, and/or wayward individuals. Weapons categories explored include: biological, chemical, nuclear, radiological, cyber, and future threats. (Formerly 3700:418)

**POLIT:419 Homeland Security Policy and Process (3 Credits)**

The course will explore the concept of homeland security, the complexity of homeland security and disaster policy in a federal system, threats to homeland security, and the challenges to effective homeland security and disaster policy in the United States. (Formerly 3700:419)

**POLIT:422 Understanding Racial and Gender Conflicts (3 Credits)**

This is the core course the Certificates in Racial and Gender Conflict, providing students with an opportunity to intensively examine racial and gender conflict. (Formerly 3700:422)

**POLIT:427 Campaign Battleground (3 Credits)**

This course will provide a general framework with which to understand presidential, congressional, state, and local elections from the perspective of campaign professional and political observers. The course will follow campaigns in real time, investigating the strategy, tactics, and conduct of major party candidates and campaigns. It will also examine coverage of national, state, and local races by the media as well as analyze current polling. The course will include guest speakers including academics, campaign professionals, public officials, and journalists. (Formerly 3700:427)

**POLIT:428 Ohio Politics (3 Credits)**

Prerequisite: POLIT 100. This course focuses on factors that make Ohio economically competitive. Material focuses on recent election results, public opinion polling and influence of socioeconomic factors. (Formerly 3700:428)

**POLIT:437 Government Versus Organized Crime (3 Credits)**

The course gives a history of organized crime and the government's responses to fight it. Newly emerging international crime groups are also discussed. (Formerly 3700:437)

**POLIT:440 Survey Research Methods (3 Credits)**

Prerequisite: POLIT 100. Study of survey research methods as applied to the analysis of public opinion, political behavior, and public policy formation. (Formerly 3700:440)

**POLIT:441 The Policy Process (3 Credits)**

Prerequisites: Eight credits in political science. Intensive study of policy-making process, emphasizing roles of various participants in executive and legislative branches as well as private individuals and groups. (Formerly 3700:441)

**POLIT:442 Methods of Policy Analysis (3 Credits)**

Prerequisite: POLIT 301. Examines variety of methods available for analyzing public policies. Techniques of cost benefit analysis, evaluation research quasi-experimentation are covered as well as consideration of ethical questions in policy analysis, the practical problems facing policy analysts. (Formerly 3700:442)

**POLIT:443 Political Scandals & Corruption (3 Credits)**

This course will provide information on major political scandals, including media coverage, public opinion, the role of special prosecutors, and the impacts of scandals. (Formerly 3700:443)

**POLIT:445 Al Qaeda and ISIS (3 Credits)**

This course explores the causes and consequences of Al Qaeda and ISIS ideologies and tactics around the world. (Formerly 3700:445)

**POLIT:446 National Security Intelligence (3 Credits)**

The aim of this course is to familiarize students with the politics and policy of national security intelligence in the US. (Formerly 3700:446)

**POLIT:447 Counterterrorism (3 Credits)**

The course introduces students to the federal national security agencies, polices, politics, and methods of containing and defeating terrorism abroad and within the United States. (Formerly 3700:447)

**POLIT:448 Intelligence Analysis (3 Credits)**

This course is intended to for students who seek a career in the field of government or private sector intelligence or who just have an interest in how intelligence analysis is done. (Formerly 3700:448)

**POLIT:450 Administering Prisons, Probation, and Parole (3 Credits)**

Prerequisite: POLIT 100. Analysis of the administrative, electoral, and community conflicts central to understanding, resolving, and preventing these conflicts in a correctional environment. (Formerly 3700:450)

**POLIT:461 The Supreme Court & Constitutional Law (3 Credits)**

Prerequisite: POLIT 100. Interpretation of the Constitution by the Supreme Court with emphasis on federal judicial, legislative and executive power; separation of powers; and federalism. (Formerly 3700:461)

**POLIT:462 The Supreme Court & Civil Liberties (3 Credits)**

Prerequisite: POLIT 100. Interpretation of the Constitution by the Supreme Court with emphasis on freedom of speech and press, freedom of religion, criminal rights and right to privacy. (Formerly 3700:462)

**POLIT:463 Human Rights in World Politics (3 Credits)**

An introduction to human rights from a comparative perspective; topics include: definition and development of human rights with attention paid to government interaction and wartime. (Formerly 3700:463)

**POLIT:470 Fundamentals of Political Strategy (3 Credits)**

Explore theoretical concepts, practical applications, roles, and best practices as it relates to political campaign management. Develop critical thinking skills to assess, analyze, act and communicate in situations throughout the election cycle, including message development and delivery, target audiences and voter contact and engagement. Consider real-life and rhetorical situations and hear from campaign professionals equipped to share first-hand perspectives on the operations and infrastructure of political campaigns. (Formerly 3700:470)

**POLIT:471 Fundamentals of Electoral Messaging (3 Credits)**

Explore theoretical concepts, practical applications, roles, and best practices as it relates to political campaign and electoral communication. Develop skills to plan, produce and execute strategic political messages including campaign addresses, press releases and media advisories, constituent, volunteer, and donor communications, and video releases while considering candidate and opposition research, fact sheets, time and budgetary constraints, polling and targeting data, and candidate preferences. (Formerly 3700:471)

**POLIT:472 Campaign Finance, Fundraising, and Budgeting (3 Credits)**

This course examines the most controversial aspect of applied politics: the role and influence of money. Topics include: the sources of political money, how it is raised and spent, the impact of money on the political process, the rules that govern political finance, and proposals for campaign finance reform. (Formerly 3700:472)

**POLIT:473 Voter Contact & Elections (3 Credits)**

Theoretical and practical approaches to communication in all types of campaigns. (Formerly 3700:473)

**POLIT:474 Political Opinion, Behavior & Electoral Politics (3 Credits)**

Prerequisite: POLIT 100 or POLIT 301. Advanced analysis of psychological, cultural, and group processes of opinion formation and change. Attention given to the effect of opinion change on electoral outcomes. (Formerly 3700:474)

**POLIT:475 American Interest Groups (3 Credits)**

Prerequisite: Completion of six or more political science credits. Reading and research on the development, structure and function of interest groups in the United States. (Formerly 3700:475)

**POLIT:476 American Political Parties (3 Credits)**

Prerequisites: Completion of six or more political science credits. Reading and research on the development, structure and function of parties in the United States. (Formerly 3700:476)

**POLIT:477 Government Relations and Lobbying (3 Credits)**

This course examines government relations, lobbying, and advocacy through participating in hands-on applied projects, meeting with elected officials and government relations professionals, and preparing students for the wide range of career options available to government relations professionals. (Formerly 3700:477)

**POLIT:478 Fundamentals of the Digital Campaign (3 Credits)**

This course will examine the evolution of digital campaigning, explore the pillars of effective digital strategy, and analyze the role digital strategy plays from communications to fundraising to field and everything in between. It will look at the rise of digital platforms, strengths and weaknesses of them, how to best leverage them in a well-rounded digital program, along with security and disinformation tactics to navigate. Students will learn how to effectively research, craft, deploy, and execute an effective digital plan that can serve as the connective tissue of any winning campaign. (Formerly 3700:478)

**POLIT:480 Policy Problems in Political Science (3 Credits)**

Intensive study of selected problems in public policy. (Formerly 3700:480)

**POLIT:481 The Challenges of Police Work (3 Credits)**

Prerequisite: POLIT 100. Analysis of the neighborhood, bureaucratic, electoral, and operational conflicts central to police work, with a focus on efforts and obstacles to improving police work. (Formerly 3700:481)

**POLIT:482 Criminal Justice Topic: Current Issues (3 Credits)**

(May be repeated for a maximum of six credits) Prerequisite: POLIT 100. Critical analysis of current issues relating to political science and criminal justice. No more than three credits can be applied to the major. (Formerly 3700:482)

**POLIT:483 Constitutional Problems in Criminal Justice (3 Credits)**

Prerequisite: POLIT 100. Analyzes Supreme Court policy-making regarding problems of criminal justice, including search and seizure, self-incrimination, right to counsel, jury selection, and post-appeal prisoner rights. (Formerly 3700:483)

**POLIT:492 Selected Topics in Political Science (3 Credits)**

Topics of substantial current importance or specialized topics within political science (May be repeated for a total of 6 credits). (Formerly 3700:492)

**POLIT:497 Senior Honors Project in Political Science (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission. Open only to a political science major in Honors Program. Independent study leading to completion of senior honors thesis or other original work. (Formerly 3700:497)

## American Politics, Minor

### Minor in American Politics (370003M)

**Program Contact**

*Dr. Nancy Marion*

*Professor, Political Science*

330-972-5551

nmarion@uakron.edu

The following information has official approval of the **Department of Political Science** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in American Politics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. At least 9 credits must be at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		3
Electives		15
Total Hours		18

## Required Courses

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
Total Hours		3

## Electives

Code	Title	Hours
<b>Select 15 credits from the following:</b>		<b>15</b>
POLIT:210	State & Local Government & Politics	
POLIT:341	The American Congress	
POLIT:350	The American Presidency	
POLIT:360	The Judicial Process	
POLIT:370	Public Administration: Concepts & Practices	
POLIT:381	State Politics	
POLIT:395	Internship in Government & Politics	
POLIT:402	Politics and the Media	
POLIT:440	Survey Research Methods	
POLIT:470	Fundamentals of Political Strategy	
POLIT:471	Fundamentals of Electoral Messaging	
POLIT:472	Campaign Finance, Fundraising, and Budgeting	
POLIT:474	Political Opinion, Behavior & Electoral Politics	
POLIT:475	American Interest Groups	
POLIT:476	American Political Parties	
Total Hours		15

# Applied Political Communication, Certificate

## Certificate in Applied Political Communication (370019C)

Applied political communication encompasses the interaction of political figures, political interests, governmental institutions, media, and the public in their efforts to persuade and influence political power and public policy outcomes. This certificate's interdisciplinary nature applies the fundamentals of public communication and political science to meet the specific needs and goals of political campaigns and advocacy organizations. Topics covered include campaign leadership strategies, audience analysis pertaining to specific publics, crisis communication, effective strategic messaging campaigns targeting publics through traditional communication channels, digital communication assets, and social media platforms. The certificate is designed for students seeking preparation for careers as legislative aides, political consultants, campaign managers, social media or digital strategists, political journalists, government press secretaries, lobbyists, or aides in public affairs organizations.

## Requirements for Admission

This certificate program is open to all students who have been admitted to undergraduate study at the University of Akron.

### Program Contact

Dr. David Cohen

Professor, Political Science

330-972-6045

dbcohen@uakron.edu (nmarion@uakron.edu)

The following information has official approval of the **Department of Political Science** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Applied Political Communication" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
	Required Core	6
	Required Internship	3
	Elective	9
	<b>Total Hours</b>	<b>18</b>

## Required Core

Code	Title	Hours
POLIT:470	Fundamentals of Political Strategy	3
COMM:475	Political Communication	3
	<b>Total Hours</b>	<b>6</b>

## Required Internship

Code	Title	Hours
<b>Complete 3 credits:</b>		<b>3</b>
POLIT:395	Internship in Government & Politics or COMM:48 Communication Internship	
	<b>Total Hours</b>	<b>3</b>

## Electives

Code	Title	Hours
<b>Complete a total of 9 credits:</b>		<b>9</b>
<i>Political Science Courses (minimum 3 credits)</i>		
POLIT:402	Politics and the Media	
POLIT:427	Campaign Battleground	
POLIT:440	Survey Research Methods	
POLIT:471	Fundamentals of Electoral Messaging	
POLIT:472	Campaign Finance, Fundraising, and Budgeting	
POLIT:473	Voter Contact & Elections	
POLIT:474	Political Opinion, Behavior & Electoral Politics	
POLIT:475	American Interest Groups	
POLIT:406	Comparative Constitutional Law	
POLIT:477	Government Relations and Lobbying	
POLIT:478	Fundamentals of the Digital Campaign	
POLIT:395	Internship in Government & Politics	
<i>Communication Courses (minimum 3 credits)</i>		
COMM:307	Principles of Social Media	
COMM:219	Introduction to Public Relations	
COMM:303	Public Relations Writing	
COMM:309	Public Relations Publications	
COMM:368	Basic Audio & Video Editing	
COMM:472	Video Production	
COMM:405	Media Copywriting	
COMM:406	Public Relations Theory	
COMM:409	Public Relations Strategic Campaigns	
COMM:429	Advanced Strategic Social Media	
COMM:435	Organizational Communication	
COMM:436	Analyzing Organizational Communication	
COMM:459	Leadership and Communication	
COMM:468	Advanced Audio and Video Editing	
COMM:480	Communication Internship <sup>1</sup>	
	<b>Total Hours</b>	<b>9</b>

<sup>1</sup> If taken instead of COMM:475 or for additional credit beyond the 3 credits needed to fulfill the Required Internship

## Applied Politics, Certificate

### Certificate in Applied Politics (370005C)

The Ray C. Bliss Institute and the Department of Political Science have combined to offer a Certificate Program in Applied Politics for undergraduate students. The Certificate Program in Applied Politics offers course work in the history, organization, and management of campaigns intended to influence the outcome of political decisions. Working from a set of core courses, students are allowed to concentrate

in the area of applied politics of greatest interest—campaigns, communications, lobbying, political parties, etc. Believing that democracy is best served by having active and informed citizens, the certificate is designed for all students, no matter what their degree program as long as they have an interest in practical politics.

#### Program Contact

*Dr. David Cohen*

*Professor, Political Science*

330-972-6045

[dbcohen@uakron.edu](mailto:dbcohen@uakron.edu) ([nmarion@uakron.edu](mailto:nmarion@uakron.edu))

The following information has official approval of the **Department of Political Science** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Certificate in Applied Politics” and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student’s record. Students must maintain at least a B average in their coursework for the certificate. Political Science majors will, upon completion of the program, be awarded a B.A. or B.S. degree in Political Science with a Certificate in Applied Politics. Majors in other disciplines will have the Certificate noted on their permanent record.

## Summary

Code	Title	Hours
Required Courses		9
Internship		3
Elective Courses		6
Total Hours		18

## Required Courses

Code	Title	Hours
<b>Complete nine credits of the following:</b>		<b>9</b>
POLIT:470	Fundamentals of Political Strategy	
POLIT:471	Fundamentals of Electoral Messaging	
POLIT:472	Campaign Finance, Fundraising, and Budgeting	
POLIT:473	Voter Contact & Elections	
POLIT:478	Fundamentals of the Digital Campaign	
Total Hours		9

## Internship

Code	Title	Hours
POLIT:395	Internship in Government & Politics	3
Total Hours		3

## Elective Courses

Code	Title	Hours
<b>Complete six credits of the following:</b>		<b>6</b>
POLIT:375	Women in Politics	
POLIT:395	Internship in Government & Politics <sup>1</sup>	
POLIT:402	Politics and the Media	

POLIT:427	Campaign Battleground	
POLIT:428	Ohio Politics	
POLIT:440	Survey Research Methods	
POLIT:441	The Policy Process	
POLIT:442	Methods of Policy Analysis	
POLIT:463	Human Rights in World Politics	
POLIT:474	Political Opinion, Behavior & Electoral Politics	
POLIT:475	American Interest Groups	
POLIT:476	American Political Parties	
POLIT:477	Government Relations and Lobbying	
Total Hours		6

<sup>1</sup> If students complete more than three credits of this course in fulfillment of their core requirements, the additional credit may be applied toward this elective category.

## Comparative Politics, Minor Minor in Comparative Politics (370006M)

#### Program Contact

*Dr. Ron Gelleny*

*Associate Professor, Political Science*

330-972-2773

[Gelleny@uakron.edu](mailto:Gelleny@uakron.edu) ([nmarion@uakron.edu](mailto:nmarion@uakron.edu))

The following information has official approval of the **Department of Political Science** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Minor in Comparative Politics” and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student’s record. At least 9 credits must be at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

## Required Courses

Code	Title	Hours
POLIT:150	World Politics & Government	3
POLIT:300	Comparative Politics	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select 12 credits of the following:</b>		<b>12</b>
POLIT:304	Modern Political Thought	
POLIT:321	European Politics	

POLIT:326	Politics of Developing Nations	
POLIT:405	Politics in the Middle East	
POLIT:414	Wealth and Power Among Nations	
Total Hours		12

## Criminal Justice, Minor

### Minor in Criminal Justice (370001M)

#### Program Contact

Dr. Nancy Marion  
Professor, Political Science  
330-972-5551  
nmarion@uakron.edu

The following information has official approval of the **Department of Political Science** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Criminal Justice" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. At least 9 credits must be at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		8
Additional Credits for Minor		1
Total Hours		18

## Required Courses

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
POLIT:301	Introduction to Political Research	3
POLIT:361	Politics of the Criminal Justice System	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 8 credits from the following:</b>		<b>8</b>
POLIT:363	Crime, Punishment, Politics: A Comparative Perspective	
POLIT:395	Internship in Government & Politics <sup>1</sup>	
POLIT:450	Administering Prisons, Probation, and Parole	
POLIT:480	Policy Problems in Political Science	
POLIT:481	The Challenges of Police Work	
POLIT:482	Criminal Justice Topic: Current Issues	
POLIT:483	Constitutional Problems in Criminal Justice	
Total Hours		8

<sup>1</sup> A maximum of 4 credits of internship can be applied to minor and must be in a Criminal Justice related field.

## Political Science, BA

### Bachelor of Arts in Political Science (370000BA)

More on the Political Science major (<https://www.uakron.edu/polisci/academics/undergraduate/>)

Successful graduates of this program go on to graduate or law school, manage campaigns, run for office, work in state and local government or for various federal government agencies, including the U.S. Marshall's Office, U.S. State Department, Federal Bureau of Investigation, Environmental Protection Agency, and Amnesty International.

### Statement of Policies – Admission

For students enrolled at The University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from other institutions, the following criteria must be satisfied for admission to the Department of Political Science:

- The student must be admissible to Buchtel College of Arts and Sciences
- A minimum grade point average of 2.20 must be met in all university work, including transfer credits
- A minimum grade point average of 2.20 must be met in all work in Political Science, including university and transfer credits. Only credits earned at an accredited institution of post-secondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.

### Retention

Students in the Political Science programs must maintain a minimum grade point average of 2.20 overall and a minimum of 2.20 grade point average in Political Science courses (including transfer credit) in order to remain in the program. A student who fails to maintain the 2.20 cumulative average (including transfer credit) will be placed on academic probation. Failure to raise the average after one semester will result in dismissal from the program. The student may not apply for readmission for at least one semester.

The following information has official approval of **The Department of Political Science** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied

course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Political Science Core	15
	Political Science 300/400 Level Courses	18
	Additional Credits for Graduation *	39
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.2 cumulative GPA is required for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:135	Mathematics for Everyday Life	
	or STAT:250 Statistics for Everyday Life	
	or STAT:260 Basic Statistics	
	or STAT:261 Introductory Statistics I	
	or STAT:262 Introductory Statistics II	
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
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**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

<i>Foreign Language</i>		<b>14</b>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	
	202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Political Science Core

Code	Title	Hours
<b>Political Science Core</b>		
POLIT:100	Government & Politics in the United States	3
POLIT:150	World Politics & Government	3
POLIT:301	Introduction to Political Research	3
POLIT:300	Comparative Politics	3
POLIT:203	Introduction to Political Thought	3
<b>Total Hours</b>		<b>15</b>

## Political Science 300/400 Level Courses

Code	Title	Hours
<b>Complete 18 credits:</b>		<b>18</b>
POLIT:3xx		
POLIT:4xx <sup>1</sup>		
POLIT:392	Selected Topics in Political Science <sup>2</sup>	
POLIT:395	Internship in Government & Politics <sup>3</sup>	
<b>Total Hours</b>		<b>18</b>

<sup>1</sup> Nine credits must be at the 400 level or above.

<sup>2</sup> No more than 3 credits of a Selected Topics course (POLIT:392 Selected Topics in Political Science) may be applied toward completion of the major requirements.

<sup>3</sup> No more than 4 credits from an internship (POLIT:395 Internship in Government & Politics) may be applied toward completion of the major requirements.

# Political Science, National Security, BA

## Bachelor of Arts in Political Science, National Security (370018BA)

More on the Political Science, National Security major (<https://www.uakron.edu/polisci/academics/undergraduate/>)

This Political Science degree track will prepare students for the study and practice of national security. Thus, the degree track will help educate students for a career in international diplomacy, the Intelligence Community, the military, private intelligence and security contractors, law enforcement, business, as well as others.

The following information has official approval of **The Department of Political Science** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Required Courses	15
	Track Core Electives	6
	Core Electives	11
	Additional Credits for Graduation *	40
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.2 cumulative GPA is required for graduation.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	

*Social Sciences: 6 credit hours*

Diversity	
	Domestic Diversity
	Global Diversity
Integrated and Applied Learning	
	<i>Select one class from one of the following subcategories:</i>
	Complex Issues Facing Society
	Capstone
	<i>Review the General Education Requirements page for detailed course listings.</i>
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
	<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>	
	<i>Foreign Language</i>	<b>14</b>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	
	202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Required Courses

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
POLIT:150	World Politics & Government	3
POLIT:300	Comparative Politics	3
POLIT:301	Introduction to Political Research	3
POLIT:203	Introduction to Political Thought	3
<b>Total Hours</b>		<b>15</b>

## Track Core Electives

Code	Title	Hours
	<b>Complete six credits:</b>	<b>6</b>
POLIT:310	International Politics & Institutions	
POLIT:328	American Foreign Policy Process	
POLIT:419	Homeland Security Policy and Process	
POLIT:446	National Security Intelligence	
POLIT:448	Intelligence Analysis	

## Track Electives

Code	Title	Hours
<b>Complete at least eleven credits:</b>		<b>11</b>
POLIT:326	Politics of Developing Nations	
POLIT:337	Terrorism: Perpetrators, Politics and Response	
POLIT:339	Terrorism and the Constitution	
POLIT:395	Internship in Government & Politics	
POLIT:400	Political Extremism & Violence	
POLIT:405	Politics in the Middle East	
POLIT:410	International Security Policy	
POLIT:413	Global Public Health Threats	
POLIT:414	Wealth and Power Among Nations	
POLIT:417	Environmental Security and Climate Politics	
POLIT:418	Weapons of Mass Destruction	
POLIT:445	Al Qaeda and ISIS	
POLIT:447	Counterterrorism	
POLIT:461	The Supreme Court & Constitutional Law	
POLIT:463	Human Rights in World Politics	
POLIT:492	Selected Topics in Political Science	
SURV:105	Introduction to Geographic & Land Information Systems	
SURV:201	Intermediate Geographic and Land Information Systems	
COMM:210	Multiplatform Production	
COMM:219	Introduction to Public Relations	
Total Hours		11

## Recommended Sequence

<b>1st Year</b>		
<b>Fall Semester</b>		<b>Hours</b>
STAT:250	Statistics for Everyday Life <sup>1</sup>	4
POLIT:100	Government & Politics in the United States	3
POLIT:150	World Politics & Government	3
	Speaking Requirement	3
	Writing Requirement	3
Hours		16
<b>Spring Semester</b>		
POLIT:210	State & Local Government & Politics	3
POLIT:203	Introduction to Political Thought	3
	Writing Requirement	3
	Arts/Humanities Requirement	3
	Social Science Requirement	3
Hours		15
<b>2nd Year</b>		
<b>Fall Semester</b>		
POLIT:300	Comparative Politics	3
POLIT:310	International Politics & Institutions	3
POLIT:448	Intelligence Analysis	3
	Arts/Humanities Requirement	3
	Social Science Requirement	3
Hours		15

<b>Spring Semester</b>		
POLIT:400	Political Extremism & Violence	3
POLIT:446	National Security Intelligence	3
	Natural Science Requirement	3
	Complex Issues Requirement	3
	General Elective	3
Hours		15

<b>3rd Year</b>		
<b>Fall Semester</b>		
ARAB:101	Beginning Arabic I	4
POLIT:419	Homeland Security Policy and Process	3
POLIT:447	Counterterrorism	3
	Natural Science with Lab Requirement	3
	Domestic Diversity Requirement	3
Hours		16

<b>Spring Semester</b>		
ARAB:102	Beginning Arabic II	4
	General Elective	3
	General Elective	3
	General Elective	3
	General Elective	3
Hours		16

<b>4th Year</b>		
<b>Fall Semester</b>		
ARAB:201	Intermediate Arabic I	4
	Global Diversity Requirement	3
	General Elective	3
	General Elective	3
	General Elective	3
Hours		16

<b>Spring Semester</b>		
ARAB:202	Intermediate Arabic II	4
	General Elective	3
	General Elective	3
	General Elective	3
	General Elective	3
Hours		16
Total Hours		125

<sup>1</sup> Satisfies the Mathematics, Statistics, and Logic General Education requirement

## Political Science/JD Degree Accelerated, BA

### Bachelor of Arts in Political Science/Juris Doctor Degree Accelerated (370017BA)

More on the Political Science Accelerated major (<https://www.uakron.edu/law/curriculum/three-plus-three/>)

For undergraduates in select programs, you can earn your bachelor's and law degrees in six years instead of seven. To complete law school, you



typically need four years to complete a bachelor's degree and three years to complete a law degree (juris doctor degree).

Akron Law's new 3 + 3 Program allows eligible undergraduate students participating in partner programs to apply to Akron Law in their junior year of college.

Students admitted under the program fulfill their senior year of undergraduate credits through the successful completion of their first-year law school courses (<https://www.uakron.edu/law/curriculum/jd.dot>), allowing them to graduate with both a bachelor's and law degree in just six years, saving a year of tuition and related costs, and they begin their legal careers a year ahead of time.

### Applicants

Pursuant to Akron Law's 3 + 3 policy, an applicant must be in his or her junior year and participating in a partner program. Applicants must also meet his or her undergraduate institution's criteria for eligibility.

Typically, you must have a 3.4 grade point average and 150 LSAT score to qualify for admission. However, this might vary depending on your program. Each undergraduate institution determines which majors and programs are eligible for participation.

### Application requirements

In addition to being an eligible junior in a partner program, applicants must take the Law School Admissions Test (LSAT), complete the law school application, and submit a certification of eligibility from the partner program. Applicants can request the certification form from the contact person at their institution as listed above. 3 + 3 candidates are considered alongside Akron Law's regular pool of applicants.

Applicants to the 3 + 3 program are encouraged to take the LSAT in October or December of their junior year in college and apply in January after their fall grades are available. However, later applications, including those from June LSAT-takers, will also be considered.

The following information has official approval of **The Department of Political Science, The School of Law and The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Political Science Core	27-33
	Additional Credits for Graduation *	15-9
	<b>Total Hours</b>	<b>90</b>

- \* Bachelor's degrees require a minimum of 120 credit hours for graduation. Students admitted to University of Akron School of Law will receive BA in Political Science after completing 30 credits during the first year of law school.

Note: A GPA of 3.4 overall is needed to complete the degree along with a minimum Political Science GPA of a 2.2

## Recommended General Education Courses

**Code**                      **Title**    **Hours**

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:135      Mathematics for Everyday Life

or STAT:250      Statistics for Everyday Life

or STAT:260      Basic Statistics

or STAT:261      Introductory Statistics I

or STAT:262      Introductory Statistics II

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

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Total Hours 34

## College of Arts & Sciences Requirements

**Code**                      **Title**    **Hours**

**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

*Foreign Language* 14

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222      Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;  
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Political Science Core

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
POLIT:150	World Politics & Government	3
POLIT:301	Introduction to Political Research	3
POLIT:300	Comparative Politics	3
POLIT:203	Introduction to Political Thought	3
POLIT:395	Internship in Government & Politics	3-9
POLIT:360	The Judicial Process	3
or POLIT:335	Law & Society	
POLIT:461	The Supreme Court & Constitutional Law	3
POLIT:462	The Supreme Court & Civil Liberties	3
Total Hours		27-33

## Recommended Sequence

### 1st Year

Fall Semester		Hours
POLIT:100	Government & Politics in the United States	3
ENGL:111	English Composition I	3
MODL:101	Beginning Modern Language I	4
MATH:135	Mathematics for Everyday Life	3
COMM:105	Introduction to Public Speaking	3
Hours		16

### Spring Semester

POLIT:150	World Politics & Government	3
POLIT:301	Introduction to Political Research	3
MODL:102	Beginning Modern Language II	4
ENGL:112	English Composition II	3
ENGL:113	African American Language and Culture I: College Composition	3
Hours		16

### 2nd Year

Fall Semester		Hours
MODL:201	Intermediate Modern Language I	3
POLIT:203	Introduction to Political Thought	3
POLIT:300	Comparative Politics	3
Natural Science Requirement with lab		4
Humanities Requirement		3
Hours		16

### Spring Semester

POLIT:360	The Judicial Process	3
MODL:202	Intermediate Modern Language II	3
Arts Requirement		3
Natural Science Requirement		3

Free Elective	3
Hours	15

### 3rd Year

Fall Semester		Hours
POLIT:461	The Supreme Court & Constitutional Law	3
Complex Issues Requirement		3
Domestic Diversity Requirement		3
Arts/Humanities Requirement		3
Free Elective		3
Hours		15

### Spring Semester

POLIT:462	The Supreme Court & Civil Liberties	3
POLIT:395	Internship in Government & Politics	3-9
Free Elective		6
Hours		12-18

### 4th Year

Fall Semester		Hours
First Year Law courses		15
Hours		15

### Spring Semester

First Year Law courses		15
Hours		15
Total Hours		120-126

## Pre-Law, Minor

### Minor in Pre-Law (370009M)

#### Program Contact

*Dr. Phillip Marcin*  
Asst. Professor of Instruction  
330-972-6480  
pjm@uakron.edu

The following information has official approval of the **Department of Political Science** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Pre-Law" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. At least 9 credits must be completed at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
POLIT:360	The Judicial Process	3
POLIT:461	The Supreme Court & Constitutional Law	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 9 credits from the following:</b>		<b>9</b>
POLIT:210	State & Local Government & Politics	
POLIT:341	The American Congress	
POLIT:361	Politics of the Criminal Justice System	
POLIT:395	Internship in Government & Politics <sup>1</sup>	
POLIT:462	The Supreme Court & Civil Liberties	
Total Hours		9

<sup>1</sup> A maximum of 3 credits of internship can be applied to the minor.

## Security Studies, Minor

### Minor in Security Studies (370008M)

This minor will introduce students to the field of homeland and national security studies and is intended for students who are interested in a profession which focuses on managing international and domestic security threats. The minor will help prepare students for a career in intelligence, the military, homeland security, national security, international diplomacy, private intelligence, private security, and others.

## Requirements for Admission

In order for a student to receive the Homeland and National Security Studies minor, they must complete the following course requirements, sign a contract with the department, and apply for the minor prior to Commencement.

### Program Contact

*Dr. Nancy Marion*  
 Professor, Political Science  
 330-972-5551  
 nmarion@uakron.edu

The following information has official approval of the **Department of Political Science** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Security Studies" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
POLIT:100	Government & Politics in the United States	3
	or POLIT:150 World Politics & Government	
POLIT:419	Homeland Security Policy and Process	3
POLIT:448	Intelligence Analysis	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 9 credits from the following courses:</b>		<b>9</b>
POLIT:310	International Politics & Institutions	
POLIT:328	American Foreign Policy Process	
POLIT:334	Law, Mediation, and Violence	
POLIT:337	Terrorism: Perpetrators, Politics and Response	
POLIT:339	Terrorism and the Constitution	
POLIT:392	Selected Topics in Political Science (with departmental approval) <sup>1</sup>	
POLIT:395	Internship in Government & Politics <sup>1</sup>	
POLIT:400	Political Extremism & Violence	
POLIT:410	International Security Policy	
POLIT:413	Global Public Health Threats	
POLIT:417	Environmental Security and Climate Politics	
POLIT:418	Weapons of Mass Destruction	
POLIT:445	Al Qaeda and ISIS	
POLIT:446	National Security Intelligence	
POLIT:447	Counterterrorism	
Total Hours		9

<sup>1</sup> Maximum 6 credits – must be security related

## Psychology

Psychology majors learn about human and animal behavior, and are prepared for diverse careers in health, business, industry, and research. The Department of Psychology offers an extensive and varied curriculum coupled with an active faculty and student-driven research program that develops the analytical and problem-solving skills desired by employers and graduate programs. In addition there is a Field Experience program that introduces students to field work in local agencies. The academic background and applied experiences provided by the major enable students to seek regional postgraduate employment and successfully compete for graduate school opportunities leading to advanced degrees.

- Psychology, BA (p. 341)
- Psychology, Minor (p. 343)

## Psychology (PSYC)

### PSYC:100 Introduction to Psychology (3 Credits)

Introduction to scientific study of behavior, survey of physiological basis of behavior, sensation and perception, development, learning and cognition, personality, social interaction and other selected topics. (Formerly 3750:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

### PSYC:105 Professional & Career Issues in Psychology (1 Credit)

Corequisite: PSYC 100. An overview of the field of psychology including educational requirements, career opportunities and professional issues for students considering a psychology major. (Formerly 3750:105)

### PSYC:110 Quantitative Methods in Psychology (4 Credits)

Pre/Corequisite: PSYC 100. Presentation of data, descriptive statistics, correlation, hypothesis testing and introduction to statistical methodologies in psychology, including computer applications. (Formerly 3750:110)

### PSYC:220 Introduction to Experimental Psychology (4 Credits)

Prerequisites: PSYC 100 and PSYC 110. Lectures and laboratory experience in the scientific bases of psychology such as experimental design, methods and apparatus, collection and analysis of data and interpretation of results. (Formerly 3750:220)

### PSYC:230 Developmental Psychology (4 Credits)

Prerequisite: PSYC 100. Determinants and nature of behavioral change from conception to death. (Formerly 3750:230)

### PSYC:250 Psychology of Diversity (4 Credits)

Prerequisite: PSYC 100. Psychology of Diversity encompasses macro-level issues and micro-level experiences. To live effectively in the emerging global community, one must be able to understand the diversity among human beings and relate effectively to non-majority group members. Issues of diversity are not only individual and personal, but also collective and social. (Formerly 3750:250)

**Gen Ed:** - Domestic Diversity

### PSYC:320 Biopsychology (4 Credits)

Prerequisite: PSYC 100. Relationship between behavior and its biological/physiological foundations including brain structure and function, sensation, behavior genetics, learning and memory, and other topics. (Formerly 3750:320)

### PSYC:330 Emotion Across the Lifespan (4 Credits)

Prerequisites: PSYC 100 and PSYC 230. We read and discuss primary writings on theoretical and empirical research in emotional development in adulthood. Topics include emotion perception and emotion regulation. (Formerly 3750:330)

### PSYC:335 Dynamics of Personality (4 Credits)

Prerequisite: PSYC 100. An overview of theory and research involving the development, maintenance and assessment of personality and individual differences. (Formerly 3750:335)

### PSYC:340 Social Psychology (4 Credits)

Prerequisite: PSYC 100. The examination of an individual's response to social environment and social interaction processes. Social perception, attitude formation and change, affiliation and attraction, altruism, group processes and nonverbal behavior. (Formerly 3750:340)

### PSYC:345 Cognitive Processes (4 Credits)

Prerequisite: PSYC 100. Survey of the basic phenomena, concepts and theories in the areas of human perception, learning, memory and cognition. (Formerly 3750:345)

### PSYC:380 Industrial/Organizational Psychology (4 Credits)

Prerequisite: PSYC 100. Survey of the application of psychology to the workplace including an emphasis on organizational (e.g., motivation) and personnel issues (e.g., selection). (Formerly 3750:380)

### PSYC:400 Personality (4 Credits)

Prerequisites: PSYC 100 and PSYC 335. Consideration of current conceptualizations of the normal personality with emphasis on methods of measurement, experimental findings and research techniques. (Formerly 3750:400)

### PSYC:405 Sensation & Perception (4 Credits)

Prerequisite: PSYC 100. Reviews the basic psychological and neural components of sensation and perception involving visual, auditory, cutaneous, and chemical sensory systems. (Formerly 3750:405)

### PSYC:410 Psychological Tests & Measurements (4 Credits)

Prerequisites: PSYC 100 and PSYC 110. Consideration of the nature, construction and use of tests and measurements in industry, government and education. Includes aptitude and achievement tests, rating scales, attitude and opinion analysis. (Formerly 3750:410)

### PSYC:415 Cognitive Neuroscience (4 Credits)

Prerequisite: PSYC 100. A review of neuroimaging studies addressing contemporary themes in human behavior, including consciousness, learning and memory, neuropathology, and emotion. (Formerly 3750:415)

### PSYC:420 Abnormal Psychology (4 Credits)

Prerequisite: PSYC 100. Survey of syndromes, etiology, diagnoses and treatments of major psychological conditions ranging from transient maladjustments to psychoses. (Formerly 3750:424)

### PSYC:424 Myths of Sexuality (4 Credits)

Prerequisites: 45 credit hours, PSYC 100, and PSYC 250. The Myths of Sexuality is a brief introduction into the psychology of human sexuality, as well as a more critical exploration of the contemporary issues in sexuality today, including but not limited to gender identity, queer studies, and the psychology behind the sex industry. (Formerly 3750:424)

### PSYC:425 Psychology of Hate (4 Credits)

Prerequisites: Junior or higher standing and PSYC 100. The primary objective of this course is to understand the psychology behind hate. Topics include racism, sexism, heterosexism, religious intolerance, classism and ageism. (Formerly 3750:425)

**Gen Ed:** - Complex Issues Facing Society

### PSYC:430 Psychological Disorders of Children (4 Credits)

Prerequisites: PSYC 100 and PSYC 230. Survey of syndromes, etiologies and treatments of behavioral disorders in children from the standpoint of developmental psychology. Behavioral data and treatment approaches emphasized. (Formerly 3750:430)

### PSYC:435 Cross-Cultural Psychology (4 Credits)

Prerequisites: PSYC 100. Influence of culture and ethnicity upon development of individual psychological processes including functioning, identity, social motives, sex roles and values. (Formerly 3750:435)

**Gen Ed:** - Domestic Diversity

### PSYC:440 Personnel Psychology & the Law (4 Credits)

Prerequisite: PSYC 380 or MGMT 301. The implications of equal employment law on the practice of personnel psychology. (Formerly 3750:440)

### PSYC:441 Clinical & Counseling Psychology I (4 Credits)

Prerequisites: PSYC 100 and PSYC 335. Overview of the fields of clinical and counseling psychology with a major focus on psychotherapeutic approaches, including cultural considerations, legal/ethical issues, and outcome research. (Formerly 3750:441)

**PSYC:442 Clinical & Counseling Psychology II (4 Credits)**

Prerequisite: PSYC 441. Overview of individual counseling and psychotherapy, group counseling, personality and ability testing, marriage and family counseling, hypnosis, sex therapy, psychopharmacology and related specialties. Specific topics in clinical and counseling practice including professional trends, ethics, various therapeutic and diagnostic procedures, and specialty areas. (Formerly 3750:442)

**PSYC:443 Human Resource Management (4 Credits)**

Prerequisites: PSYC 100 and PSYC 380. The application of psychological theory to the effective management of human resources in an organization, including recruitment, selection, training and retention of personnel. (Formerly 3750:443)

**PSYC:444 Organizational Theory (4 Credits)**

Prerequisites: PSYC 100 and PSYC 380. The application of psychological theory to macro-level processes in organizations including leadership, motivation, task performance, organizational theories and development. (Formerly 3750:444)

**PSYC:445 Psychology of Small Group Behavior (4 Credits)**

Prerequisite: PSYC 100. Intensive investigation of factors affecting behavior and performance in small groups including effects of personality, social structures, task, situational and social-cognitive variables. (Formerly 3750:445)

**PSYC:450 Cognitive Development (4 Credits)**

Prerequisites: PSYC 100 and PSYC 345. Theory and research on life-span changes in cognitive processes including concept formation/categorization, information processing and Piagetian assessment tasks. (Formerly 3750:450)

**PSYC:460 History of Psychology (3 Credits)**

Prerequisite: PSYC 100. Psychology in pre-scientific period and details of developmental or systematic viewpoints in 19th and 20th Centuries. (Formerly 3750:460)

**PSYC:474 Psychology of Women (4 Credits)**

Prerequisite: PSYC 100 or WMST 200. Reviews theory and research in the psychology of women and gender and encourages students to use these in their everyday lives. (Formerly 3750:474)

**Gen Ed:** - Domestic Diversity

**PSYC:475 Psychology of Adulthood & Aging (4 Credits)**

Prerequisites: PSYC 100 and PSYC 230. Psychological aspects of human development from adolescence to older adulthood including age-related changes in socialization, personality, intelligence, sensation, perception, learning, memory and clinical applications. (Formerly 3750:475)

**PSYC:480 Special Topics in Psychology (1-4 Credits)**

Prerequisites: PSYC 100 and junior or higher standing. Comprehensive survey of contemporary status of specialized topics and issues in psychology. Emphasis on original source materials, critical analysis and synthesis of empirical and theoretical aspects. (Formerly 3750:480)

**PSYC:488 Honors Project in Psychology (4 Credits)**

Prerequisites: Psychology major and departmental permission, and PSYC 100, PSYC 105, PSYC 110, PSYC 220, and [PSYC 320 or PSYC 335 or PSYC 340 or PSYC 345]. Selection of research topic, review of relevant literature, research design, and proposal. (Formerly 3750:488)

**PSYC:489 Honors Project in Psychology (4 Credits)**

Prerequisites: Psychology major and departmental permission, and PSYC 100, PSYC 105, PSYC 110, PSYC 220, and [PSYC 320 or PSYC 335 or PSYC 340 or PSYC 345]. Data collection, analysis, and preparation of the final research report in journal style. (Formerly 3750:489)

**PSYC:495 Field Experience in Psychology (1-4 Credits)**

(May be repeated to a maximum of 6 credits). Prerequisites: PSYC 100, PSYC 105, PSYC 110 and eight additional credits in psychology. On-site supervised individual placements in appropriate settings. The academic component of the experience will be under the supervisor of a selected faculty member. (Formerly 3750:495)

**PSYC:497 Independent Reading/Research in Psychology (1-3 Credits)**

(May be repeated to a maximum of 6 credits). Prerequisites: PSYC 100, PSYC 105, PSYC 110, PSYC 220 and four additional credits in psychology. Independent reading and/or research in an area of psychology under the supervision and evaluation of a selected faculty member. (Formerly 3750:497)

**PSYC:498 Honors Research in Psychology (1-3 Credits)**

Prerequisites: Psychology major and approval of honors advisor. Individual research with a faculty advisor leading to the completion of a research project satisfying departmental and university requirements. (Formerly 3750:498)

## Psychology, BA

### Bachelor of Arts in Psychology

#### (375000BA)

More on the Psychology major (<https://www.uakron.edu/psychology/academics/undergraduate/>)

The following information has official approval of **The Department of Psychology** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Psychology Core	32
	Psychology Electives	8
	Additional Credits for Graduation *	32
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i> <sup>1</sup>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
PSYC:435	Cross-Cultural Psychology or PSYC:474 Psychology of Women	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
PSYC:425	Psychology of Hate	
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

<sup>1</sup> The Psychology Department recommends that a student take a statistics course to satisfy their general education math requirement.

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Foreign Language</i>		<b>14</b>
101	Beginning I	
102	Beginning II	
201	Intermediate I	
202	Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Psychology Core

Code	Title	Hours
PSYC:100	Introduction to Psychology	3
PSYC:105	Professional & Career Issues in Psychology	1
PSYC:110	Quantitative Methods in Psychology <sup>1</sup>	4
PSYC:220	Introduction to Experimental Psychology	4
PSYC:250	Psychology of Diversity	4
<b>Select 16 credits of the following:</b>		<b>16</b>
PSYC:230	Developmental Psychology	
PSYC:320	Biopsychology	
PSYC:335	Dynamics of Personality	
PSYC:340	Social Psychology	
PSYC:345	Cognitive Processes	
PSYC:410	Psychological Tests & Measurements	
Total Hours		32

<sup>1</sup> The Psychology Department recommends that a student take a statistics course to satisfy their general education math requirement. It is strongly recommended that a student complete statistics prior to PSYC:110 Quantitative Methods in Psychology.

## Psychology Electives

Code	Title	Hours
<b>Complete 8 credits:</b> <sup>1</sup>		<b>8</b>
PSYC:2xx	200-level Psychology courses	
PSYC:3xx	300-level Psychology courses	
PSYC:4xx	400-level Psychology courses	
Total Hours		8

<sup>1</sup> No more than four credits may be fulfilled with PSYC:495 Field Experience in Psychology or PSYC:497 Independent Reading/Research in Psychology.

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
PSYC:100	Introduction to Psychology	3
PSYC:105	Professional & Career Issues in Psychology	1
Writing Requirement		3
Mathematics, Statistics, and Logic Requirement		3
Modern Language Requirement		3
Elective		4
Hours		17
<b>Spring Semester</b>		
Writing Requirement		3
Modern Language Requirement		3
Natural Science with Lab Requirement		4
Speaking Requirement		3
Hours		13

**2nd Year****Fall Semester**

PSYC:110	Quantitative Methods in Psychology	4
PSYC:230	Developmental Psychology	4
	Natural Science Requirement	3
	Modern Language Requirement	3
	Hours	14

**Spring Semester**

PSYC:220	Introduction to Experimental Psychology	4
PSYC:250	Psychology of Diversity	4
	Modern Language Requirement	3
	Social Science Requirement	3
	Domestic Diversity Requirement	3
	Hours	17

**3rd Year****Fall Semester**

GEOG:275	Geography of Cultural Diversity	2
PHIL:101	Introduction to Philosophy	3
PSYC:340	Social Psychology	4
ART:101	Survey of Global Art 1: Prehistory to 1250 CE	3
	Arts Requirement	3
	Hours	15

**Spring Semester**

PSYC:320	Biopsychology	4
PSYC:335	Dynamics of Personality	4
PSYC:435	Cross-Cultural Psychology	4
SOCIO:320	Social Inequalities	3
	Hours	15

**4th Year****Fall Semester**

BIOL:312	Neuroscience in Health and Disease	3
PSYC:330	Emotion Across the Lifespan	4
PSYC:460	History of Psychology	3
PSYC:475	Psychology of Adulthood & Aging	4
	Hours	14

**Spring Semester**

ENGL:350	Black American Literature	3
PSYC:425	Psychology of Hate	4
PSYC:380	Industrial/Organizational Psychology	4
PSYC:345	Cognitive Processes	4
	Hours	15
	Total Hours	120

## Psychology, Minor

### Minor in Psychology (375000M)

**Program Contact**

Dr. Jennifer Stanley

Associate Professor, Department of Psychology

330-972-8376

jstanley@uakron.edu

The following information has official approval of the **Department of Psychology** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Psychology" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. At least 8 credits must be at the 300/400 level. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		11
Electives		7
Total Hours		18

## Required Courses

Code	Title	Hours
PSYC:100	Introduction to Psychology	3
<b>Select one of the following:</b>		<b>4</b>
PSYC:110	Quantitative Methods in Psychology	
PSYC:220	Introduction to Experimental Psychology	
PSYC:230	Developmental Psychology	
PSYC:250	Psychology of Diversity	
<b>Select one of the following:</b>		<b>4</b>
PSYC:320	Biopsychology	
PSYC:335	Dynamics of Personality	
PSYC:340	Social Psychology	
PSYC:345	Cognitive Processes	
PSYC:380	Industrial/Organizational Psychology	
Total Hours		11

## Electives

Code	Title	Hours
<b>Select 7 credits of 300/400-level courses:</b>		<b>7</b>
PSYC:3xx	300-level Psychology Electives	
PSYC:4xx	400-level Psychology Electives	
Total Hours		7

## Sociology

**Mission and Vision:** The Department of Sociology is committed to providing students with the tools to engage, and the skills to solve, real-world problems (e.g., health/well-being, environmental and social justice, inequalities). Our graduates have strong analytic and communication skills, can think critically and act creatively to address social problems. By ensuring that all students apply their learning through hands-on research projects and internships, we graduate informed students who are prepared to work in areas designed to address systemic problems facing our local, regional and global communities.

A BA degree in Sociology enables students to develop a deep understanding of the social world and how it operates as well as how personal issues and public concerns interconnect. In addition, a sociology degree develops students' research knowledge and skills in ways that enable graduates to confidently apply the critical thinking, analytical, and communication skills that are crucial for success in today's ever-changing world.

Earning a BA in sociology offers students wide flexibility in terms of career choices. Graduates apply their knowledge and skills within such areas as medical and health services, recreation, business, law and law enforcement, urban planning, social policy, and social services. Sociology students are also prepared for graduate and professional school programs in areas such as law, medicine, health professions, public policy, business, sociology, social work, and other social sciences.

## Statement of policies - Admission

For students enrolled at the University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from their institutions, the following criteria must be satisfied for admission to the Department of Sociology:

- The student must be admissible to Buchtel College of Arts and Sciences
- A minimum grade point average of 2.0 must be met in all university work, including transfer credits until 30 UA credits are earned. Only credits earned at an accredited institution of postsecondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.

## Graduation

A Sociology major must earn a cumulative 2.0 grade point average in Sociology and overall to graduate with such a declared major.

- Conflict Transformation & Social Entrepreneurship, Certificate (p. 346)
- Research Methods for the Social Sciences, Certificate (p. 347)
- Sociology, BA (p. 347)
- Sociology, Minor (p. 350)

## Sociology (SOCIO)

### **SOCIO:100 Introduction to Sociology (3 Credits)**

Basic terminology, concepts, and approaches in sociology, including an introduction to the analysis of social groups. Students will learn how to apply sociological concepts to the understanding of social justice, the social determinants of health and well-being, and socio-behavioral research among others. (Formerly 3850:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

### **SOCIO:200 Social Justice (3 Credits)**

This course explores sociological approaches to the pursuit and achievement of social justice. Our focus will be on identifying social injustice from a socio-structural perspective and understanding the processes and approaches associated with achieving social justice. We will focus on organized efforts in such areas as criminal justice reform, gender equity, and environmental activism. (Formerly 3850:200)

### **SOCIO:243 Contemporary Global Issues (3 Credits)**

Multidisciplinary approach to global social problems. Examines cultural, political, and economic issues in developed and developing nations. Emphasizes technology's impact and global interrelationships. (Formerly 3850:243)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Global Diversity

### **SOCIO:301 Social Research Design (3 Credits)**

Prerequisites: SOCIO 100 and 3 credits of Mathematics (MATH) or Statistics (STAT) courses. The basis of this course is learning to apply course material to improve thinking, problem-solving, and decisions in conducting research design and data gathering techniques. Required of all majors. (Formerly 3850:301)

### **SOCIO:302 Data Analysis (3 Credits)**

Prerequisites: Completion of [POLIT 301 or SOCIO 301], and SOCIO 100, and 3 credits of Mathematics (MATH) or Statistics (STAT) courses. Essential objectives of this course are developing expression skills in writing and learning fundamental principles in statistics. Other key topics include quantitative techniques and application to sociological data. Required of all majors. (Formerly 3850:302)

### **SOCIO:310 Social Problems (3 Credits)**

Prerequisite SOCIO 100 or permission. Study of selected contemporary problems in society; application of sociological theory and research to understand the social construction of and response to these problems. (Formerly 3850:310)

### **SOCIO:315 Sociological Social Psychology (3 Credits)**

Prerequisite: SOCIO 100. The reciprocal influence of individuals and groups. How interpersonal processes produce and affect group structure. How groups affect the development and behavior of the social person. (Formerly 3850:315)

### **SOCIO:320 Social Inequalities (3 Credits)**

Prerequisite: SOCIO 100 or permission. This course covers local, regional, national, and global dimensions of social inequalities to better understand our social world. Structural and interactionist approaches to relations of power in society frame the course. Students will learn tools to better understand and address inequality. Required of all majors. (Formerly 3850:320)

**Gen Ed:** - Complex Issues Facing Society

### **SOCIO:321 Population, Environment, and Health (3 Credits)**

Prerequisite: SOCIO 100 or permission. An introduction to world and national population trends and characteristics and their relationship to health and the environment. Topics include social demographic causes and consequences of fertility, mortality, morbidity, and migration. Other topics include population change, the nexus between population and the environment, climate change, and also public health. (Formerly 3850:321)

**Gen Ed:** - Global Diversity

### **SOCIO:324 Social Movements (3 Credits)**

Prerequisite: SOCIO 100 or permission. Social movements as distinguished from other forms of collective behavior; analysis of social situations which produce social movements; focus on development of social movements and their role in social change. Lecture. (Formerly 3850:324)

### **SOCIO:325 Sociology of Women in Global Society (3 Credits)**

Prerequisite: SOCIO 100 or permission. Examination of research and theories pertaining to women's status in global society, including economic conditions, the relationship between structure and experience, and global/local linkages. Includes a broader discussion of facets of gender(s) and sexualities in global perspective. (Formerly 3850:325)



**SOCIO:330 Criminology (3 Credits)**

Prerequisite: SOCIO 100 or permission. Major focus on forms, trends, and patterns of crime; the interrelationships and analysis of criminal justice systems and society; the study of social and behavioral causes of crime and consequences of crime for individuals and communities. (Formerly 3850:330)

**SOCIO:336 Sociology of Work & Occupations (3 Credits)**

Prerequisite: SOCIO 100 or permission. Survey of theory and empirical research in areas such as the structure of occupations and professions, occupational attainment, work force characteristics, work values and orientations, the nature of work. Lecture. (Formerly 3850:336)

**SOCIO:340 The Family (3 Credits)**

Prerequisite: SOCIO 100 or permission. Analysis of family as a social system; historical, comparative and contemporary sociological approaches examined in relation to family structure and functions. Lecture. (Formerly 3850:340)

**SOCIO:341 Political Sociology (3 Credits)**

Prerequisite: SOCIO 100 or permission. Survey of theory and empirical research dealing with relationship between political phenomena and the larger network of social processes in human societies. Lecture. (Formerly 3850:341)

**SOCIO:342 Sociology of Health & Illness (3 Credits)**

Prerequisite: SOCIO 100 or permission. General survey of sociological perspectives, concepts and research on health, illness and health-care delivery systems. Lecture. (Formerly 3850:342)

**Gen Ed:** - Complex Issues Facing Society

**SOCIO:343 Sociology of Aging (3 Credits)**

Prerequisite: SOCIO 100 or permission. The Sociology of Aging course enables students to understand the impacts of social power, social structure, and social interaction on aging individuals. It considers complexities built into institutions that impact current issues in aging. It explains the interaction among social, biological and psychological aging and approaches to aging. Basic terms and theories used in social gerontology are defined. (Formerly 3850:343)

**SOCIO:350 Drugs in Society (3 Credits)**

Prerequisite: SOCIO 100 or permission. Examination of drugs and their use from a sociological perspective. Emphasis on social correlates of drug use, societal responses, health, crime, treatment, and prevention strategies. (Formerly 3850:350)

**SOCIO:360 Social Effects of Crime in the Media (3 Credits)**

Prerequisite: SOCIO 100. Sociological examination of the consequences of images of crime in the media. Focus on issues of stereotypes and discrimination by race, sex and class. (Formerly 3850:360)

**SOCIO:365 Special Topics in Sociology (1-3 Credits)**

(May be repeated) Prerequisite: Permission. Special topics of interest to sociology major and non-major not covered in regular course offerings. (Formerly 3850:365)

**SOCIO:397 Sociological Readings & Research (1-3 Credits)**

Prerequisite: Permission. Individual study of problem area of specific interest to individual student under guidance of department member. Preparation of a research paper. (Formerly 3850:397)

**SOCIO:401 Advanced Topics in Research Methods (3-6 Credits)**

Prerequisites: POLIT 301 or SOCIO 301. Special topics of interest in advanced methods not covered in regular course offerings. (Formerly 3850:401)

**SOCIO:410 Social Structures & Personality (3 Credits)**

Prerequisite: SOCIO 100 or permission. Interrelationships between position in society, personality characteristics. Personality treated as both result and determinant of social structure and process. Lecture. (Formerly 3850:410)

**SOCIO:411 Social Interaction (3 Credits)**

Prerequisite: SOCIO 100 or permission. Intensive study of advanced theory and research in social psychology, particularly how social interaction and self-conception affect one another. Lecture. (Formerly 3850:411)

**SOCIO:412 Socialization: Child to Adult (3 Credits)**

Prerequisite: SOCIO 100 or permission. Theoretical and empirical analysis of process by which infant, child, adolescent and adult learn social and cultural requirements necessary to function in new roles, changing roles and society in general. (Formerly 3850:412)

**SOCIO:415 Women in Prison (3 Credits)**

Prerequisite: SOCIO 100 or permission of instructor. In depth examination of women's experiences in prison. Includes processes involved in the movement into prison, experiences while in institutions, and transitioning out of prison. (Formerly 3850:415)

**SOCIO:416 Women and Crime (3 Credits)**

Prerequisite: SOCIO 100 or permission. An overview of women's experiences with crime, including women as offenders, victims, and workers in the criminal justice system. (Formerly 3850:416)

**SOCIO:421 Race & Ethnic Relations (3 Credits)**

Prerequisite: SOCIO 100 or permission. Analysis of structure and dynamics of race and ethnic relations from a variety of perspectives emphasizing both historical and contemporary issues. Lecture. (Formerly 3850:421)

**SOCIO:425 Sociology of Urban Life (3 Credits)**

Prerequisite: SOCIO 100 or permission. Emergence and development of urban society. Examination of urban social structure from neighborhood to metropolis, the problems and prospects. Emphasis on various life styles of urban subcultures. Lecture/discussion. (Formerly 3850:425)

**SOCIO:428 Victim in Society (3 Credits)**

Prerequisite: SOCIO 100 or permission. Study of the nature, causes, and consequences of victimization with special focus on crime victimization. (Formerly 3850:428)

**SOCIO:430 Juvenile Delinquency (3 Credits)**

Prerequisite: SOCIO 100 or permission. Analysis of social structure and process from which delinquency develops. Emphasis on current and past research. Lecture/discussion. (Formerly 3850:430)

**SOCIO:431 Theories and Practices of Correctional Systems (3 Credits)**

Prerequisite: SOCIO 100 or permission. Study of theories, past and current research, and practices of institutional and community corrections systems. The history and philosophies/goals of corrections will be reviewed in relation to changing social contexts and how these shifts have impacted the operation of correctional systems. (Formerly 3850:431)

**SOCIO:433 Sociology of Deviant Behavior (3 Credits)**

Prerequisites: SOCIO 100 or permission. Survey of theories of deviant behavior and relevant empirical research. Special emphasis is given to interaction processes and social control. (Formerly 3850:433)

**Gen Ed:** - Complex Issues Facing Society

**SOCIO:435 Sociology of Love (3 Credits)**

Prerequisite: SOCIO 100 or permission. Study of the relation of love to the social order. Coverage includes diverse types, such as romantic, familial, religious, and altruistic love. (Formerly 3850:435)

**SOCIO:441 Sociology of Law (3 Credits)**

Prerequisite: SOCIO 100 or permission of department. Social origins and consequences of law and legal processes. Emphasis on uses of law, social change and aspects of legal professions. (Formerly 3850:441)

**SOCIO:447 Sociology of Gender, Sex, and Sexualities (3 Credits)**

Prerequisite: SOCIO 100 or permission. The social, cultural, and historical construction of gender and sexuality; gender and sexuality as mechanisms of stratification; and the intersection of gender, race, class, and nation. (Formerly 3850:447)

**SOCIO:450 Sociology of Mental Illness (3 Credits)**

Prerequisite: SOCIO 100 or permission. The social history of the mental hospital, theories and epidemiology of mental illness, community-based treatment models, the organization of mental health services, the role of personal social networks and mutual support groups. (Formerly 3850:450)

**SOCIO:455 Family Violence (3 Credits)**

Prerequisite: SOCIO 100. Family violence with a focus on child abuse, courtship violence, spouse/partner abuse, and elder abuse. Theories, methodologies, and strategies to end family violence are explored. (Formerly 3850:455)

**SOCIO:460 Sociological Theory (3 Credits)**

Prerequisite: SOCIO 100 or permission. An overview and examination of theoretical issues in sociology through the study of both classical and contemporary theoretical work. (Formerly 3850:460)

**SOCIO:470 Research Methods for the Social Sciences Pro-seminar (3 Credits)**

Prerequisite: Completion of required coursework for the Research Methods Certificate Program or Permission of Instructor. Application of qualitative and/or quantitative research methods and analysis, and preparation of a scholarly research paper for presentation and/or publication. Seminar. (Formerly 3850:470)

**SOCIO:490 Organizations, Community, and Social Action (3 Credits)**

Survey of organizational and community issues that affect the achievement of shared goals. Emphasis on the evidence-based approaches at both the organizational and community levels. (Formerly 3850:490)

**SOCIO:495 Field Internship (2-4 Credits)**

Prerequisites: Permission of a faculty supervisor and a minimum of 64 hours of undergraduate coursework of which 12 hours must be in sociology. Placement in community organization for supervised experience related to degree requirements. Student must submit an application to the intern coordinator during semester prior to enrollment. (Formerly 3850:495)

**SOCIO:496 Senior Honors Project (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Enrollment in Honors College, Senior standing, and major in sociology. Thesis or original creative work appropriate to student's area of interest. Requirements and evaluation of project determined by departmental honors preceptor and student's honors project adviser. (Formerly 3850:496)

# Conflict Transformation & Social Entrepreneurship, Certificate

## Certificate in Conflict Transformation & Social Entrepreneurship (370016C)

Because the skills needed to more productively navigate the conflicts in our lives overlap with the skills that characterize successful social entrepreneurs, this uniquely interdisciplinary, free-standing, certificate offers you an opportunity to learn skills designed to help you become a leader in your own life.

**Program Contact**

*Dr. Robert Peralta*  
Professor, Dept of Sociology  
Director, Center for Conflict Management  
330-972-6915  
rp32@uakron.edu

The following information has official approval of the **Department of Sociology** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Conflict Transformation & Social Entrepreneurship" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Core Required Courses		6
Electives		3-4
Total Hours		9-10

## Core Requirements

Code	Title	Hours
POLIT:334	Law, Mediation, and Violence	3
<b>Complete one of the following courses:</b>		<b>3</b>
POLIT:333	Social Entrepreneurship	
SOCIO:490	Organizations, Community, and Social Action	
SOCIO:320	Social Inequalities	
Total Hours		6

## Electives

Code	Title	Hours
<b>Complete one of the following courses:</b>		<b>3-4</b>
COMM:444	Communication & Conflict	
SOCIO:441	Sociology of Law	
ANTH:460	Field Methods in Cultural Anthropology	
Total Hours		3-4

# Research Methods for the Social Sciences, Certificate

## Certificate in Research Methods for the Social Sciences (385000C)

### Program Contact

Dr. Lia Wiley

Associate Professor of Instruction, Sociology

330-972-7951

lmc73@uakron.edu

The following information has official approval of the **Department of Sociology** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Research Methods for the Social Sciences" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. To satisfy the requirements for the certificate, a student must complete a minimum of 15 semester credits, including two core courses, two complementary courses and the RMSS Pro-seminar.

### Summary

Code	Title	Hours
<b>Complete the following areas for a minimum of 15 credits:</b>		<b>15</b>
Core Requirements		
Complementary Interdisciplinary Courses		
Total Hours		15

### Core Requirements

Code	Title	Hours
<b>Core Requirement I</b>		
Select one of the following: <sup>1</sup>		2-4
EMHS:340	Disaster Research Methods	
ANTH:400	Introduction to Anthropological Data	
GEOG:481	Research Methods in Geography & Planning	
HIST:310	Historical Methods	
POLIT:301	Introduction to Political Research	
PSYC:220	Introduction to Experimental Psychology	
SOCIO:301	Social Research Design	
MKTG:335	Marketing Research	
COMM:384	Communication Research	
NURS:435	Evidence Based Practice in Nursing	
<b>Core Requirement II</b>		
SOCIO:365	Special Topics in Sociology <sup>2</sup>	1-4
	or ANTH:460 Field Methods in Cultural Anthropology	
<b>Core Requirement III</b>		
SOCIO:470	Research Methods for the Social Sciences Pro-seminar <sup>3</sup>	3
Total Hours		6-11

## Complementary Interdisciplinary Courses

Code	Title	Hours
<b>Select 6 credits from at least two different groups:</b>		
<i>Group 1: Philosophy</i>		
PHIL:426	Phenomenology	
PHIL:464	Philosophy of Science	
<i>Group 2: English</i>		
ENGL:479	Management Reports	
ENGL:489	Seminar in English	
<i>Group 3: Statistics and Sociology</i>		
STAT:462	Applied Regression and ANOVA	
STAT:465	Design of Sample Surveys	
SOCIO:302	Data Analysis	
Total Hours		6

- Students can apply the methods course taken in their major discipline to the certificate or choose to take a course in another discipline. Students choosing a course in another discipline should be advised that there may be prerequisites for the class in that department.
- Students must select a research based topic.
- SOCIO:470 Research Methods for the Social Sciences Pro-seminar will be the final course for students completing the Certificate program in Research Methods. Students will demonstrate their ability to apply the research methods they have learned from conceptualization, design, data collection, analysis, and interpretation. The seminar will be offered in Sociology and Anthropology on a rotating basis.

## Sociology, BA

### Bachelor of Arts in Sociology (385000BA)

More on the Sociology major (<https://www.uakron.edu/sociology/degrees/>)

**Department of Sociology Mission and Vision Statement:** The Department of Sociology provides all students with the tools to engage, and the skills to solve, real-world problems including issues of health and well-being, social justice, and inequalities. We collaborate across campus and with community members and organizations to develop students with strong analytic and communication skills who can think critically and act creatively to address social problems. By ensuring that all students apply their learning through hands-on research projects and a range of experiential learning opportunities, we graduate informed students who are prepared to work in areas designed to address systemic problems facing our local, regional, and global communities and organizations.

### Statement of policies - Admission

For students enrolled at the University of Akron and for students wishing to transfer directly to Buchtel College of Arts and Sciences from their institutions, the following criteria must be satisfied for admission to the Department of Sociology:

- The student must be admissible to Buchtel College of Arts and Sciences
- A minimum grade point average of 2.0 must be met in all university work, including transfer credits. Only credits earned at an accredited

institution of postsecondary education, as recognized by The University of Akron, will be considered for transfer credit, and only those grades will be considered in the grade point average.

## Graduation

A Sociology major must earn a cumulative 2.0 grade point average in Sociology and overall to graduate with such a declared major.

The following information has official approval of **The Department of Sociology** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Sociology Core	18
	Sociology Electives	12
	Additional Credits for Graduation *	42
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.2 cumulative GPA is required for graduation in this major.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the *General Education Requirements page* for detailed course listings.

Total Hours 34

## College of Arts & Sciences Requirements

**Code Title Hours**

**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

*Foreign Language* 14

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Sociology Core

Code	Title	Hours
SOCIO:100	Introduction to Sociology	3
SOCIO:301	Social Research Design	3
SOCIO:302	Data Analysis	3
SOCIO:320	Social Inequalities	3
SOCIO:460	Sociological Theory	3
	Select at least 1 of the following (3 credit minimum by program's completion): <sup>1</sup>	3
SOCIO:401	Advanced Topics in Research Methods	
or SOCIO:495	Field Internship	
or SOCIO:496	Senior Honors Project	
	<b>Total Hours</b>	<b>18</b>

## Elective Concentrations

Code	Title	Hours
	<b>Complete 12 elective credit hours through one of the following pathways:</b>	<b>12</b>
	(1) <i>General Concentration (12 credit hours):</i> <sup>2</sup>	
SOCIO:3xx		

SOCIO:4xx	
<i>(2) Social Justice Concentration (select 9-12 credit hours from the following):<sup>3</sup></i>	
SOCIO:310	Social Problems
SOCIO:324	Social Movements
SOCIO:325	Sociology of Women in Global Society
SOCIO:421	Race & Ethnic Relations
SOCIO:428	Victim in Society
SOCIO:433	Sociology of Deviant Behavior
SOCIO:441	Sociology of Law
SOCIO:447	Sociology of Gender, Sex, and Sexualities
SOCIO:490	Organizations, Community, and Social Action
<i>(3) Health &amp; Society Concentration (select 9-12 credit hours from the following):<sup>4</sup></i>	
SOCIO:321	Population, Environment, and Health
SOCIO:342	Sociology of Health & Illness
SOCIO:343	Sociology of Aging
SOCIO:350	Drugs in Society
SOCIO:450	Sociology of Mental Illness
SOCIO:455	Family Violence
<b>APPROVED INTERDISCIPLINARY COURSE LIST</b>	
<i>Social Justice and Health &amp; Society<sup>5</sup></i>	
CHFD:401	American Families in Poverty
PHIL:365	Environmental Ethics
ANTH:320	The Anthropology of Food
<i>Social Justice<sup>6</sup></i>	
PSYC:425	Psychology of Hate
PHIL:324	Social & Political Philosophy
PHIL:327	Law and Morality
HIST:457	The United States since 1945
HIST:469	African-American Women's History
ECON:350	Women and the Economy
ECON:430	Labor Market and Social Policy
THEA:476	Theatre and Community Action
WMST:480	Feminist Theory
<i>Health &amp; Society<sup>7</sup></i>	
ANTH:309	Medicine & the Humanities
ANTH:457	Medical Anthropology
COMM:438	Health Communication
PSYC:320	Biopsychology
PSYC:415	Cognitive Neuroscience
PSYC:420	Abnormal Psychology
PSYC:430	Psychological Disorders of Children
PHIL:361	Biomedical Ethics
STAT:470	Biostatistics and Epidemiology
NUTR:480	Community Nutrition I
ECON:436	Health Economics
Total Hours	12

<sup>1</sup> If 495/496 is completed, students have the option to complete 401 as an elective for any concentration.

<sup>2</sup> Students can complete their choice of any combination of 300-400 level courses within Sociology to fulfill the General concentration.

<sup>3</sup> Students have the option to complete one (3-4 credit hours) course from the department-approved, interdisciplinary list to complement 9 hours of sociology coursework from this list for Social Justice.

<sup>4</sup> Students have the option to complete one (3-4 credit hours) course from the department-approved, interdisciplinary list to complement 9 hours of sociology coursework from this list for Health & Society.

<sup>5</sup> One course on this list may be used to complete either the Social Justice or Health & Society concentration.

<sup>6</sup> One course on this list may be used to complete the social justice concentration.

<sup>7</sup> One course on this list may be used to complete the Health & Society concentration.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
SOCIO:100	Introduction to Sociology (Fulfills Domestic Diversity)	3
ENGL:111	English Composition I	3
or ENGL:110	or English Composition I + Workshop	
STAT:250	Statistics for Everyday Life	4
or STAT:260	or Basic Statistics	
	Arts/Humanities Requirement	3
	Modern Language Requirement	3
Hours		16

### Spring Semester

COMM:105	Introduction to Public Speaking	3
or COMM:106	or Effective Oral Communication	
SOCIO:320	Social Inequalities (Fulfills Complex Issues)	3
ENGL:112	English Composition II	3
	Natural Science with Lab Requirement	4
	Modern Language Requirement	3
Hours		16

### 2nd Year

#### Fall Semester

SOCIO:301	Social Research Design	3
	Natural Science Requirement	3
	Modern Language Requirement	3
	Elective	3
	Elective	3
Hours		15

#### Spring Semester

SOCIO:302	Data Analysis	3
SOCIO:460	Sociological Theory	3
	Arts/Humanities Requirement (if needed or elective)	3
	Global Diversity Requirement (or elective)	3
	Modern Language Requirement	3
Hours		15

### 3rd Year

#### Fall Semester

Sociology Concentration Elective (300/400 level)	3
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Sociology Concentration elective (300/400 level)	3	
Elective (check with advisor about unfulfilled requirements)	3	
Elective	3	
Elective	3	
Hours	15	
<b>Spring Semester</b>		
SOCIO:401 or SOCIO:495	Advanced Topics in Research Methods or Field Internship	3
Sociology Concentration elective (300/400 level)	3	
Sociology Concentration elective (300/400 level)	3	
Elective	3	
Elective	3	
Hours	15	
<b>4th Year</b>		
<b>Fall Semester</b>		
Sociology Concentration Elective (300/400 level)	3	
Elective (check with advisor about unfulfilled requirements)	3	
Elective	3	
Elective	3	
Elective	3	
Hours	15	
<b>Spring Semester</b>		
Sociology Elective (300/400 level)	3	
Sociology elective (300/400 level)	3	
Elective	3	
Elective	3	
Elective	3	
Hours	15	
Total Hours	122	

## Sociology, Minor

### Minor in Sociology (385000M)

#### Program Contact

*Dr. Lia Wiley*

Associate Professor of Instruction Sociology

330-972-7951

lmc73@uakron.edu

The following information has official approval of the **Department of Sociology** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Sociology" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University

Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		3
Electives		15
Total Hours		18

## Required Courses

Code	Title	Hours
SOCIO:100	Introduction to Sociology	3
Total Hours		3

## Electives

Code	Title	Hours
<b>Select a minimum of 15 credits of Sociology courses at the 300/400 level:</b>		
SOCIO:3xx	300-level Sociology Electives	
SOCIO:4xx	400-level Sociology Electives	
Total Hours		15

## Statistics

The BS Statistics program prepares students to enter the workforce or pursue graduate studies. Students learn how to use numerical information to solve problems in a wide variety of fields, ranging from business and industry to medical research.

In addition to providing students with a solid background in Statistics, the Actuarial Science option prepares students for careers in the actuarial field.

- Applied Statistics, Minor (p. 352)
- Statistics, Actuarial Science, BS (p. 353)
- Statistics, BS (p. 355)
- Statistics, Data Science, BS (p. 356)
- Statistics, Minor (p. 358)

## Statistics (STAT)

### STAT:250 Statistics for Everyday Life (4 Credits)

Prerequisite: placement test. Conceptual approach to the basic ideas and reasoning of statistics. Topics include descriptive statistics, probability (uncertainty), statistical inference (estimation and hypothesis testing). Computer applications laboratory. (Formerly 3470:250)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

### STAT:260 Basic Statistics (3 Credits)

Prerequisite: placement test. Applied approach to data description and statistical inference (hypothesis testing, estimation). Analysis of ratios, rates, and proportions. Computer applications. Laboratory. (Formerly 3470:260)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**STAT:261 Introductory Statistics I (2 Credits)**

Prerequisite: placement test. Descriptive statistics, tabular and graphical data displays; probability, probability distributions. Introduction to statistical inference (hypothesis testing, estimation); one-sample parametric and nonparametric methods. Computer applications. (Formerly 3470:261)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**STAT:262 Introductory Statistics II (2 Credits)**

Prerequisite: STAT 261 or equivalent. Parametric and nonparametric methods of statistical inference for paired data and two-sample problems; one-way ANOVA, simple linear regression and correlation. Computer applications. (Formerly 3470:262)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**STAT:289 Selected Topics in Statistics (1-3 Credits)**

Prerequisite: Permission. Selected topics of interest in statistics. (Formerly 3470:289)

**STAT:360 Statistical Investigations (3 Credits)**

Prerequisites: STAT 250 or STAT 260 or STAT 262. This course provides practical statistical methods beyond the introductory course. The topics include design of experiments, data analysis, multiple regression and modern software use. (Formerly 3470:360)

**STAT:401 Probability and Statistics for Engineers (2 Credits)**

Prerequisite: MATH 221. Introduction to probability, statistics, random variables, data descriptions, statistical inference, confidence intervals, hypothesis testing, design of experiments, and applications of statistics to engineering. (Formerly 3470:401)

**STAT:450 Probability (3 Credits)**

Prerequisite: MATH 221. Introduction to probability, random variables and probability distributions, expected value, sums of random variables, Markov processes. (Formerly 3470:450)

**STAT:451 Theoretical Statistics I (3 Credits)**

Prerequisite: MATH 223. Sequential (part 1 of 2). Appropriate background is three semesters of calculus or equivalent. Elementary combinatorial probability theory, probability distributions (discrete and continuous), expectation and variance, bivariate and multivariate distributions, distributions of functions of random variables. (Formerly 3470:451)

**STAT:452 Theoretical Statistics II (3 Credits)**

Prerequisite: STAT 451. Sequential (2nd of 2 parts). Sampling distributions, point estimation and properties of point estimators, sufficiency, Rao-Blackwell method and MVUE, methods of obtaining point estimators, interval estimation, hypothesis testing, Neyman-Pearson theory of optimal tests (Formerly 3470:452)

**STAT:461 Applied Statistics (4 Credits)**

Prerequisite: MATH 221. Applications of statistical theory to natural and physical sciences and engineering, including probability distributions, interval estimation, hypotheses testing (parametric and nonparametric), and simple linear regression and correlation. (Formerly 3470:461)

**STAT:462 Applied Regression and ANOVA (4 Credits)**

Prerequisite: STAT 262 or STAT 461. Applications of the techniques of regression and multifactor analysis of variance. (Formerly 3470:462)

**STAT:465 Design of Sample Surveys (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Design and analysis of frequently used sample survey techniques. (Formerly 3470:465)

**STAT:466 Applied Nonparametric Statistical Methods (3 Credits)**

Prerequisites: [STAT 261 and STAT 262] or STAT 461. This course introduces the basic tasks of inferential statistics (estimation, hypothesis testing, regression, analysis of variance) in situations where the usual assumption of the data following a parametric distribution cannot be justified or verified. Topics include the one-sample location problem, the two-sample location problem, the two-sample dispersion problem, the case with 3 or more populations – one-way layout, the case with 3 or more populations – two-way layout, binary data and success probabilities, regression and correlation. (Formerly 3470:466)

**STAT:469 Reliability Models (3 Credits)**

Prerequisite: STAT 461. Selected topics in reliability modeling including parametric and nonparametric models, competing modes of failure, censored data and accelerated life models. (Formerly 3470:469)

**STAT:470 Biostatistics and Epidemiology (3 Credits)**

Prerequisite: STAT 261 and STAT 262 or STAT 461, or equivalent. Biostatistics and Epidemiological methods for biological and medical studies, including ANOVA, analysis of repeated measures, disease-related measures, log-linear models, and clinical trials. (Formerly 3470:470)

**STAT:471 Introduction to Actuarial Science (3 Credits)**

Prerequisite: MATH 221 or equivalent. Pre/Corequisite: MATH 222 or equivalent. Interest theory and financial mathematics used in actuarial science. Topics include value of money, annuities, loans, bonds, cash flows and immunization, interest rate swaps. (Formerly 3470:471)

**STAT:472 Actuarial Models (3 Credits)**

Prerequisite: STAT 451. Study of severity, frequency and aggregate models used in actuarial applications. Calibration and evaluation. credibility procedures, fundamental principles of pricing in short-term insurance coverage. (Formerly 3470:472)

**STAT:473 Survival Analysis (3 Credits)**

Prerequisite: STAT 262 or STAT 461. Basic concepts in survival analysis, censoring and data truncation, estimation of survival models, nonparametric hazard and survival function estimation, comparing survival times between groups. (Formerly 3470:473)

**STAT:475 Foundations of Statistical Quality Control (3 Credits)**

Prerequisite: STAT 461 or equivalent. Course provides a solid foundation in the theory and applications of statistical techniques widely used in industry. (Formerly 3470:475)

**STAT:476 Bayesian Statistics (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Basic concepts in Bayesian theory, sampling methods, MCMC, and hierarchical modeling. Computer applications of Bayesian statistics to natural; and physical; sciences and engineering. (Formerly 3470:476)

**STAT:477 Time Series Analysis (3 Credits)**

Prerequisite: STAT 262, STAT 450, STAT 451, or STAT 461. Stationarity. ARIMA modeling with seasonality. Parameter estimation, model diagnostics and forecasting. Regression with autocorrelated errors. Cointegration and multivariate ARMA models. Heteroscedasticity and long-memory models (Formerly 3470:477)

**STAT:480 Statistical Data Management (3 Credits)**

Prerequisite: STAT 262 or STAT 461. Students learn data organization and structures, design of statistical data bases, statistical software analysis, importing and exporting data between software, and missing data analysis. (Formerly 3470:480)

**STAT:483 Advanced Statistical Computing (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Topics include data management, random number generation, resampling methods, numerical optimization, Markov Chain Monte Carlo, smoothing methods, data mining: clustering and classification. (Formerly 3470:483)

**STAT:484 Introduction to Machine Learning (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Methodologies for statistical learning, including generalized logistic regression, ridge regression, neural networks, support vector machines, principal components analysis, and K-means and hierarchical clustering (Formerly 3470:484)

**STAT:485 Applied Analytics-Decision Trees (3 Credits)**

Prerequisite: STAT 262 or STAT 461. Selected topics in predictive modeling using CHAID, Classification and Regression Trees, Logistic Regression and Neural Networks (Formerly 3470:485)

**STAT:486 Spatial-temporal Statistics (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Basic concepts of geostatistics, point pattern, area unit. Spatial-temporal modeling in high dimensional data. Computer applications to natural and physical sciences and engineering. (Formerly 3470:486)

**STAT:489 Topics in Statistics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Selected topics in advanced statistics, including quality control, reliability, sampling techniques, decision theory, advanced inference, stochastic processes and others. (Formerly 3470:489)

**STAT:491 Workshop in Statistics (1-3 Credits)**

(May be repeated with change of topic) Group studies of special topics in statistics. May not be used to meet undergraduate or graduate major requirements in mathematics and statistics. May be used for elective credit only. (Formerly 3470:491)

**STAT:494 High-Dimensional High-Throughput Data Analysis (3 Credits)**

Prerequisites: STAT 462 and STAT 480, or permission or instructor. This course provides exposure to a variety of advanced statistical methods (beyond the ones taught in our undergraduate curriculum) for handling the challenges of high-dimensional high-throughput data, along with their software implementation and applications. Topics include multiple hypothesis testing and multiplicity adjustment, curse of dimensionality, sparsity, high-dimensional data visualization, dimension reduction methods, model selection and estimator selection, machine learning methods, and aggregation of estimators and classifiers. (Formerly 3470:494)

**STAT:495 Statistical Consulting (1-3 Credits)**

Prerequisite: STAT 462 or STAT 480 or permission. Students will learn about various aspects of statistical consulting and will work on current projects of the Center for Statistical Consulting. May be repeated for a total of 4 credits. (Formerly 3470:495)

**STAT:496 Advanced Statistical Methods for Modern Data Analysis (3 Credits)**

Prerequisites: STAT 462 and STAT 480, or permission of instructor. This course provides exposure to a variety of advanced statistical methods (beyond the ones taught in our undergraduate curriculum) for handling the challenges of modern-day data analysis, along with their software implementation and applications. Topics include distribution-free statistical methods, modern regression methods (robust, penalized, nonparametric), generalized linear models, random effects models, generalized linear mixed models, generalized additive models, some machine learning methods, some data mining methods, and an introduction to biostatistics. (Formerly 3470:496)

**STAT:497 Individual Reading: Statistics (1-2 Credits)**

(May be repeated for a total of four credits) Prerequisites: senior standing and permission. Directed studies in statistics designed as introduction to research problems under guidance of selected faculty member. (Formerly 3470:497)

**STAT:498 Senior Honors Project (2-3 Credits)**

Prerequisite: STAT 489 (honors) and senior in the Honors Program. Directed study for a senior student in the University Honors Program who has completed STAT 489 (honors). An introduction to research problems in Statistics under the guidance of selected faculty. (Formerly 3470:498)

## Applied Statistics, Minor

### Minor in Applied Statistics (347002M)

The Minor in Applied Statistics provides non-Statistics majors with an opportunity to gain practical data science skills that are useful in both employment settings and graduate programs.

The following information has official approval of the **Department of Statistics** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Applied Statistics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Required Courses		13
Electives		9
Total Hours		22

### Required Courses

Code	Title	Hours
STAT:261	Introductory Statistics I <sup>1</sup>	2-4
or STAT:250	Statistics for Everyday Life	
or STAT:260	Basic Statistics	
STAT:262	Introductory Statistics II <sup>1</sup>	2
STAT:462	Applied Regression and ANOVA	4
STAT:480	Statistical Data Management	3
STAT:495	Statistical Consulting	1-3
Total Hours		12-16

<sup>1</sup> STAT:461 Applied Statistics may be used to substitute for STAT:261 Introductory Statistics I and STAT:262 Introductory Statistics II

### Electives

Code	Title	Hours
Complete nine credits <sup>2</sup>		9
STAT:3xx		



STAT:4xx

Total Hours 9

<sup>2</sup> Choose any three 300-level or 400-level Statistics courses, except for STAT:401 Probability and Statistics for Engineers and STAT:461 Applied Statistics.

## Statistics, Actuarial Science, BS Bachelor of Science in Statistics, Actuarial Science (347003BS)

More on the Statistics, Actuarial Science major (<https://www.uakron.edu/statistics/academics/academics-UG.dot>)

In addition to providing students with a solid background in Statistics, the Actuarial Science option prepares students for careers in the actuarial field.

The following information has official approval of **The Department of Statistics** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Statistics Core	36
	Actuarial Science Requirement	21
	Statistics Elective	3
	Additional Credits for Graduation *	12
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.0 cumulative GPA in all statistics is required for graduation.

Note: 14 credits in the major must be completed at The University of Akron

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<b>Foreign Language</b>		<b>14</b>
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Statistics Core

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
CPSC:200 or CPSC:209	Programming for Data Science <sup>1</sup> Computer Science I	4
STAT:451	Theoretical Statistics I	3

STAT:452	Theoretical Statistics II	3
STAT:461	Applied Statistics <sup>2</sup>	4
or STAT:261 & STAT:262	Introductory Statistics I and Introductory Statistics II	
STAT:462	Applied Regression and ANOVA	4
STAT:480	Statistical Data Management	3
STAT:495	Statistical Consulting <sup>3</sup>	1-3
Total Hours		34-36

<sup>1</sup> CPSC:200 is recommended for BS Statistics/Actuarial Science majors, unless the student plans to take Computer Science II.

<sup>2</sup> Either STAT:250 or STAT:260 may be used in place of STAT:261.

<sup>3</sup> Three credits of STAT:495 Statistical Consulting are required. It is recommended that students take two credits in one semester and one credit in another semester.

## Actuarial Science Requirements

Code	Title	Hours
ECON:244	Introduction to Economic Analysis	3-6
or ECON:200 & ECON:201	Principles of Microeconomics and Principles of Macroeconomics	
STAT:471	Introduction to Actuarial Science	3
STAT:472	Actuarial Models	3
STAT:477	Time Series Analysis	3
ACCT:201	Accounting Principles I	3
FIN:301	Principles of Finance	3
FIN:343	Investments	3
or RMI:414	Risk Management: Property and Casualty	
or RMI:415	Risk Management: Life and Health Insurance	
Total Hours		21-24

## Statistics Elective

Code	Title	Hours
<b>Select three credits of 400 level Statistics electives:</b>		<b>3</b>
STAT:4xx		
<i>The following courses do not satisfy this requirement:</i>		
STAT:401	Probability and Statistics for Engineers	
STAT:461	Applied Statistics	
Total Hours		3

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
MATH:221	Analytic Geometry-Calculus I	4
ENGL:111	English Composition I	3
	Social Science Requirement	3
	Beginning Foreign Language I	4
	Hours	14
<b>Spring Semester</b>		
MATH:222	Analytic Geometry-Calculus II	4
ENGL:112	English Composition II	3
STAT:471	Introduction to Actuarial Science	3
	Beginning Foreign Language II	4

Speech Requirement	3
Hours	17

### 2nd Year

#### Fall Semester

MATH:223	Analytic Geometry-Calculus III	4
STAT:461	Applied Statistics	4
ECON:244	Introduction to Economic Analysis	3
ACCT:201	Accounting Principles I	3
	Intermediate Foreign Language I	3
	Hours	17

#### Spring Semester

STAT:462	Applied Regression and ANOVA	4
	Intermediate Foreign Language II	3
	Domestic Diversity Requirement	3
CPSC:200	Programming for Data Science	4
FIN:301	Principles of Finance	3
	Hours	17

### 3rd Year

#### Fall Semester

STAT:451	Theoretical Statistics I	3
	Arts/Humanities Requirement	3
	Natural Science Requirement	3
STAT:480	Statistical Data Management	3
RMI:414	Risk Management: Property and Casualty	3
or RMI:415 or FIN:343	or Risk Management: Life and Health Insurance or Investments	
	Hours	15

#### Spring Semester

STAT:452	Theoretical Statistics II	3
STAT:477	Time Series Analysis	3
or STAT:472	or Actuarial Models	
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	General Elective	3
	Hours	15

### 4th Year

#### Fall Semester

STAT:495	Statistical Consulting	1-3
	Complex Issues Requirement	3
	Natural Science Requirement/Lab	4
	General Elective	3
	Hours	11-13

#### Spring Semester

STAT:472	Actuarial Models	3
or STAT:477	or Time Series Analysis	
STAT:495	Statistical Consulting	1-3
	General Elective	3
	Arts/Humanities Requirement	3
	Upper Level Statistics Elective	3
	Hours	13-15
	Total Hours	119-123

# Statistics, BS

## Bachelor of Science in Statistics (347000BS)

More on the Statistics major (<https://www.uakron.edu/statistics/academics/academics-UG.dot>)

The Statistics program prepares students to enter the workforce or pursue graduate studies. Students will learn how to use data to solve problems in a wide variety of fields, ranging from business and industry to medical research.

The following information has official approval of **The Department of Statistics** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Statistics Core	36
	Statistics Electives	9
	Additional Credits for Graduation *	27
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.0 cumulative GPA in all statistics is required for graduation.

Note: 14 credits in the major must be completed at The University of Akron

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		

<b>Academic Foundations</b>	<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
<i>Speaking: 3 credit hours</i>	
<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Foreign Language</i>		<b>14</b>
101	Beginning I	
102	Beginning II	
201	Intermediate I	
202	Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

- Upper-level (300/400) courses both in and outside of the student's major;
- or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Statistics Core

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
CPSC:200 or CPSC:209	Programming for Data Science <sup>1</sup> Computer Science I	4
STAT:451	Theoretical Statistics I	3
STAT:452	Theoretical Statistics II	3
STAT:461 or STAT:261 & STAT:262	Applied Statistics <sup>2</sup> Introductory Statistics I and Introductory Statistics II	4
STAT:462	Applied Regression and ANOVA	4
STAT:480	Statistical Data Management	3

STAT:495	Statistical Consulting <sup>3</sup>	3
Total Hours		36

<sup>1</sup> CPSC:200 is recommended for Statistics majors, unless the student plans to take Computer Science II.

<sup>2</sup> Either STAT:250 or STAT:260 may be used in place of STAT:261.

<sup>3</sup> Three credits of STAT:495 Statistical Consulting are required. Students should enroll in 2 credits of Statistical Consulting one semester and 1 credit in another semester.

## Statistics Electives

Code	Title	Hours
<b>Select nine credits of 400-level Statistics electives:</b>		<b>9</b>
STAT:4xx		
<i>The following courses are not permitted to satisfy this requirement:</i>		
STAT:401	Probability and Statistics for Engineers	
STAT:461	Applied Statistics	
Total Hours		9

## Recommended Sequence

### 1st Year

Fall Semester		Hours
MATH:221	Analytic Geometry-Calculus I	4
ENGL:111	English Composition I	3
	Social Science Requirement	3
	Beginning Foreign Language I	4
Hours		14

### Spring Semester

MATH:222	Analytic Geometry-Calculus II	4
ENGL:112	English Composition II	3
	Social Science Requirement	3
	Beginning Foreign Language II	4
	Speech Requirement	3
Hours		17

### 2nd Year

Fall Semester		Hours
MATH:223	Analytic Geometry-Calculus III	4
STAT:461	Applied Statistics	4
	Intermediate Foreign Language I	3
	Arts/Humanities Requirement	3
Hours		14

### Spring Semester

STAT:462	Applied Regression and ANOVA	4
	Intermediate Foreign Language II	3
	Domestic Diversity Requirement	3
	Natural Science Requirement	3
CPSC:200	Programming for Data Science	4
Hours		17

### 3rd Year

Fall Semester		Hours
STAT:451	Theoretical Statistics I	3
STAT:480	Statistical Data Management	3

	Arts/Humanities Requirement	3
	Natural Science Requirement/Lab	4
	General Elective	3
Hours		16

### Spring Semester

STAT:452	Theoretical Statistics II	3
	Upper Level Statistics Elective	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	Upper Level Elective	3
Hours		15

### 4th Year

#### Fall Semester

STAT:495	Statistical Consulting	2
	Upper Level Statistics Elective	3
	Upper Level Elective	3
	General Elective	3
	Upper Level Elective	3
Hours		14

#### Spring Semester

STAT:495	Statistical Consulting	1
	Upper Level Statistics Elective	3
	Upper Level Elective	3
	Complex Issues Requirement	3
	General Elective	3
Hours		13
Total Hours		120

## Statistics, Data Science, BS

### Bachelor of Science in Statistics, Data Science (347004BS)

More on the Statistics, Data Science major (<https://www.uakron.edu/statistics/academics/academics-UG.dot>)

The Data Science track is designed to provide students with skills needed to work with the "big data" problems that arise in business and industry, government, and medical research.

The following information has official approval of **The Department of Statistics** and **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Statistics Core	36
	Data Science Requirements	12
	Statistics Elective	6
	Additional Credits for Graduation *	18
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.0 cumulative GPA in all statistics is required for graduation.

Note: 14 credits in the major must be completed at The University of Akron

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.		
	<i>Foreign Language</i>	<b>14</b>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	

202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Statistics Core

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
CPSC:200	Programming for Data Science <sup>1</sup>	4
or CPSC:209	Computer Science I	
STAT:451	Theoretical Statistics I	3
STAT:452	Theoretical Statistics II	3
STAT:461	Applied Statistics <sup>2</sup>	4
or STAT:261	Introductory Statistics I	
& STAT:262	and Introductory Statistics II	
STAT:462	Applied Regression and ANOVA	4
STAT:480	Statistical Data Management	3
STAT:495	Statistical Consulting <sup>3</sup>	3
	<b>Total Hours</b>	<b>36</b>

<sup>1</sup> CPSC:200 is recommended for BS Statistics/Data Science majors, unless the student plans to take Computer Science II.

<sup>2</sup> Either STAT:250 or STAT:260 may be used in place of STAT:261.

<sup>3</sup> Three credits of STAT:495 Statistical Consulting are required. It is recommended that students take two credits one semester and one credit in another semester.

## Data Science Electives

Code	Title	Hours
Choose any four of the following 3-credit courses		
CPSC:445	Introduction to Bioinformatics	
STAT:477	Time Series Analysis	
STAT:483	Advanced Statistical Computing	
STAT:484	Introduction to Machine Learning	
STAT:485	Applied Analytics-Decision Trees	
ISM:324	Database Management for Information Systems	
	<b>Total Hours</b>	<b>12</b>

## Statistics Elective

Code	Title	Hours
Select six credits of 400-level Statistics electives:		
	STAT:4xx	<b>6</b>
<i>The following courses are not permitted to satisfy this requirement:</i>		
STAT:401	Probability and Statistics for Engineers	

STAT:461	Applied Statistics	
Total Hours		6

## Recommended Sequence

### 1st Year

Fall Semester		Hours
MATH:221	Analytic Geometry-Calculus I	4
ENGL:111	English Composition I	3
	Social Science Requirement	3
	Beginning Foreign Language I	4
Hours		14

### Spring Semester

MATH:222	Analytic Geometry-Calculus II	4
ENGL:112	English Composition II	3
	Social Science Requirement	3
	Beginning Foreign Language II	4
	Speech Requirement	3
Hours		17

### 2nd Year

#### Fall Semester

MATH:223	Analytic Geometry-Calculus III	4
STAT:461	Applied Statistics	4
	Intermediate Foreign Language I	3
	Arts/Humanities Requirement	3
Hours		14

#### Spring Semester

STAT:462	Applied Regression and ANOVA	4
CPSC:200	Programming for Data Science	4
	Intermediate Foreign Language II	3
	Domestic Diversity Requirement	3
	Natural Science Requirement	3
Hours		17

### 3rd Year

#### Fall Semester

STAT:451	Theoretical Statistics I	3
STAT:480	Statistical Data Management	3
	Arts/Humanities Requirement	3
	Natural Science Requirement/Lab	4
	General Elective	3
Hours		16

#### Spring Semester

STAT:452	Theoretical Statistics II	3
	Data Science Elective	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	Upper Level Elective	3
Hours		15

### 4th Year

#### Fall Semester

STAT:495	Statistical Consulting	2
	Data Science Elective	3
	Data Science Elective	3

	Upper Level Statistics Elective	3
	Complex Issues Requirement	3
Hours		14

#### Spring Semester

STAT:495	Statistical Consulting	1
	Upper Level Statistics Elective	3
	Data Science Elective	3
	General Elective	3
	General Elective	3
Hours		13
Total Hours		120

## Statistics, Minor

### Minor in Statistics (347000M)

The following information has official approval of the **Department of Statistics** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Statistics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Additional Required Courses		4
Electives		6
Total Hours		22

## Required Courses

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:462	Applied Regression and ANOVA	4
Total Hours		12

## Additional Required Courses

Code	Title	Hours
<b>Complete one of the following options:</b>		<b>4</b>
STAT:261 & STAT:262	Introductory Statistics I and Introductory Statistics II	
-or-		
STAT:461	Applied Statistics	
Total Hours		4

## Electives

Code	Title	Hours
<b>Complete six credits of 400-level Statistics:</b>		<b>6</b>
STAT:4xx		
Total Hours		6

## Women's Studies

### About Women's Studies

The Women's Studies Program at the University of Akron engages students in critical inquiry on women's oppression in the U.S and globally; the socially constructed nature of gender and sexuality; the intersection of women's oppression with race, ethnicity, class, sexuality, and other forms of inequality; and importantly, histories and modes of feminist resistance. Through a wide variety of classes, Women's Studies encourages students to debate assumptions, explore divergent viewpoints, and investigate the social, economic, and cultural practices that have shaped the lives of women around the world.

With an emphasis on critical thinking, the program integrates intellectual scholarship and research to explore how women have been represented in literature, history, society, sociology, and the media. The course, Introduction to Women's Studies, leads students in studies on systemic privilege/oppression, media and gender, sexuality, family studies, reproductive justice, work, gender violence, social policy, and feminist resistance. This course provides a foundation upon which to build a deeper knowledge of issues surrounding feminism, gender, and sexuality. Other courses in the Women's Studies Program, as well as cross listed classes in Anthropology, English, Family and Consumer Sciences, History, Philosophy, Psychology, and Sociology, provide an eye opening and often life-altering college curriculum that prepares students to challenge power disparities found in society's most powerful institutions--family, church, academia, media, business, and government--and to work for a world founded on equality and dignity for all.

Contact Mary Triece, Director of The Women's Studies Program  
 mtriece@uakron.edu  
 330-972-6222  
<https://uakron.edu/ws/>

- Women's Studies, Certificate (p. 359)
- Women's Studies, Minor (p. 360)

## Women's Studies (WMST)

### WMST:100 Social & Cultural Diversity in the United States (3 Credits)

See department for course description. (Formerly 3001:100)

### WMST:110 Multicultural Sensitivity Training (1 Credit)

See department for course description. (Formerly 3001:110)

### WMST:200 Introduction to Women's Studies (3 Credits)

Introduction to the interdisciplinary program in Women's Studies. Explores current scholarship in women's issues and experiences from perspectives of psychology, history, sociology, anthropology, and literary criticism. Feminist orientation and methodology. (Formerly 3001:200)

**Gen Ed:** - Domestic Diversity

### WMST:480 Feminist Theory (3 Credits)

Prerequisite: WMST 200. A summary of feminist theory to familiarize students with the main currents in contemporary feminist theory and the origins and evolution of that thought. (Formerly 3001:480)

### WMST:485 Special Topics in Women's Studies (1-3 Credits)

Special topics and current issues in Women's Studies. Covers content not currently addressed in other courses. Fosters a critical approach to knowledge about women. (May not be repeated) (Formerly 3001:485)

### WMST:489 Internship in Women's Studies (1-4 Credits)

Prerequisites: WMST 200 and permission of Director of Women's Studies. This class provides supervised experience and on-the-job training in an organization, agency, corporation or group dealing with women's issues. (Formerly 3001:489)

### WMST:490 Women's Studies Lecture Series (1-3 Credits)

Various topics focused on women. Themes and course materials vary each semester. Lecture and discussion. (Formerly 3001:490)

### WMST:493 Individual Studies on Women (1-3 Credits)

Prerequisites: WMST 200 and permission of Director of Women's Studies. Directed study of selected topics related to women. Projects are chosen by student in consultation with instructor. (Formerly 3001:493)

### WMST:499 Seminar in Women's Studies (1 Credit)

See department for course description. (Formerly 3001:499)

## Women's Studies, Certificate

### Certificate in Women's Studies (300110C)

Interdisciplinary and personalized, the Women's Studies certificate fosters a critical approach to knowledge about women; at the core of its intellectual agenda is diversity. By focusing on cultural practices that have largely excluded and devalued differences in gender, sexual orientation, ethnicity, race, and class, Women's Studies prepares students to appreciate and act in a pluralistic world. The Women's Studies certificate integrates scholarship and research on women and gender from different disciplinary traditions. Students are challenged to debate assumptions, explore divergent viewpoints, and critically examine society's most powerful institutions - family, religion, education, business, and government. The Women's Studies Program helps students to evaluate what they have been taught and, most importantly, it empowers them to work for social justice after their education. Students may enroll in any Women's Studies courses and/or make an appointment with the director to discuss a plan of study. Students need not be enrolled in the certificate program to take Women's Studies courses. This certificate may be earned independently of a degree.

### Program Contact

*Professor Mary E. Triece, Ph.D.*

*Director of Women's Studies, School of Communication*

330-972-6222

mtriece@uakron.edu

The following information has official approval of the **Department of Women's Studies** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Women's Studies" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		9
Electives		12
Total Hours		21

## Required Courses

Code	Title	Hours
WMST:200	Introduction to Women's Studies	3
WMST:480	Feminist Theory	3
or PHIL:455	Philosophy of Feminism	
WMST:489	Internship in Women's Studies	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 12 credits from the following:</b> <sup>1</sup>		<b>12</b>
WMST:485	Special Topics in Women's Studies	
WMST:493	Individual Studies on Women	
CLAS:363	Women in Ancient Greece and Rome	
ANTH:416	Anthropology of Sex and Gender	
ENGL:364	Women Writers	
ENGL:440	Women and Film	
ENGL:453	American Women Poets	
HIST:325	Women in Modern Europe	
HIST:350	U.S. Women's History	
HIST:400	Gender and Culture in China	
HIST:469	African-American Women's History	
HIST:499	Women and Gender in Middle Eastern Societies	
SPAN:430	Women in 20th Century Hispanic Literature	
PHIL:455	Philosophy of Feminism	
POLIT:375	Women in Politics	
PSYC:474	Psychology of Women	
SOCIO:325	Sociology of Women in Global Society	
SOCIO:415	Women in Prison	
SOCIO:416	Women and Crime	
SOCIO:447	Sociology of Gender, Sex, and Sexualities	
SOCIO:455	Family Violence	
CHFD:201	Intimate Relationships	
CHFD:265	Child Development	
CHFD:442	Human Sexuality	
CHFD:446	Culture, Ethnicity & Family	
FASH:219	Dress and Culture	
SOWK:265	Women & Addiction	
SOWK:411	Women's Issues in Social Work Practice	
Total Hours		12

<sup>1</sup> At least 9 credits must be at the 300/400 level and no more than 2 courses may be taken from the same department.

## Women's Studies, Minor Minor in Women's Studies (300110M)

This interdisciplinary minor focuses on diversity and the ways that women's and men's lives have been shaped by factors such as race, class, religion, age, sexual orientation, region, historical period, culture, political and economic structures, and social systems. The minor requires two core classes and 12 hours of approved electives.

### Program Contact

Professor Mary E. Triece, Ph.D.  
 Director of Women's Studies, School of Communication  
 330-972-6222  
 mtriece@uakron.edu

The following information has official approval of the **Department of Women's Studies** and the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Women's Studies" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6
Elective Courses		12
Total Hours		18

## Required Courses

Code	Title	Hours
WMST:200	Introduction to Women's Studies	3
WMST:480	Feminist Theory	3
or PHIL:455	Philosophy of Feminism	
Total Hours		6

## Elective Courses

Code	Title	Hours
<b>Select 12 credits of elective courses. At least 9 credits must be at the 12 300 or 400 level and no more than 2 courses from the same unit:</b>		
<i>Women's Studies</i>		
WMST:485	Special Topics in Women's Studies	
WMST:489	Internship in Women's Studies	
WMST:493	Individual Studies on Women	
<i>Classical Studies and Anthropology</i>		
CLAS:363	Women in Ancient Greece and Rome	
ANTH:416	Anthropology of Sex and Gender	
<i>English</i>		
ENGL:364	Women Writers	
ENGL:440	Women and Film	
ENGL:453	American Women Poets	



*History*

HIST:325	Women in Modern Europe
HIST:350	U.S. Women's History
HIST:400	Gender and Culture in China
HIST:469	African-American Women's History
HIST:499	Women and Gender in Middle Eastern Societies

*Modern Languages*

SPAN:430	Women in 20th Century Hispanic Literature
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*Philosophy*

PHIL:455	Philosophy of Feminism
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*Political Science*

POLIT:474	Political Opinion, Behavior & Electoral Politics
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*Psychology*

PSYC:474	Psychology of Women
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*Sociology*

SOCIO:325	Sociology of Women in Global Society
SOCIO:415	Women in Prison
SOCIO:416	Women and Crime
SOCIO:447	Sociology of Gender, Sex, and Sexualities
SOCIO:455	Family Violence

*Child Development*

CHFD:201	Intimate Relationships
CHFD:265	Child Development
CHFD:442	Human Sexuality
CHFD:446	Culture, Ethnicity & Family

*Fashion Merchandise*

FASH:219	Dress and Culture
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*Social Work*

SOWK:265	Women & Addiction
SOWK:411	Women's Issues in Social Work Practice

Total Hours 12

## Interdisciplinary Programs

- Applied Professional Writing, Certificate (p. 361)
- Arts, AA (p. 361)
- Arts, Communication Option, AA (p. 363)
- Gerontology, Certificate (p. 364)
- Global Studies, BA (p. 365)
- Humanities Divisional, BA (p. 370)
- Latin American Studies, Certificate (p. 371)
- Multidisciplinary Studies, BAT (p. 371)
- Science, AS (p. 372)
- Social Science, Divisional PPE Track, BA (p. 374)
- Social Sciences, Divisional PSP Track, BA (p. 375)
- Technical Studies, ATS (p. 376)

**See also:**

- Biomedical Science, BS (p. 87)
- Women's Studies, Certificate (p. 359)
- Women's Studies, Minor (p. 360)

## Applied Professional Writing, Certificate

### Certificate in Applied Professional Writing (202000C)

This certificate, involving a minimum of 12 credit hours, will help students to apply such skills to pragmatic workplace scenarios.

**Program Contact**

*Kelly Webb Bronstrup*

*Associate Professor, Department of Applied General & Technical Studies  
330-972-7140*

*kwebb@uakron.edu*

The following information has official approval of **The Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Applied Professional Writing" and must be completed with a minimum grade point average of 2.5 overall for the certificate to be noted on the student's record. The granting of this certificate does not require the completion of a degree. At least 6 of the 12 credit hours must be taken through the Department of Applied General and Technical Studies.

## Summary

Code	Title	Hours
Required Courses		12
Total Hours		12

## Required Courses

Code	Title	Hours
<b>Complete 12 credits from the following courses:</b>		<b>12</b>
ENGL:120	Writing and Editing	
ENGL:123	Writing for Presentations	
ENGL:216	Collaborative Writing	
ENGL:220	Writing and Research	
ENGL:227	Writing for the World Wide Web	
ENGL:290	Special Topics: Associate Studies	
ENGL:325	Signs of Professional Writing	
ENGL:222	Technical Report Writing	
200/300/400-level Writing Intensive Courses <sup>1</sup>		
Total Hours		12

<sup>1</sup> Must be writing-intensive courses approved by the English area faculty of the Department of Applied General and Technical Studies.

## Arts, AA

### Associate of Arts (202000AA)

## Contact Information

*Dr. Katie Cerrone*

Program Coordinator  
Leigh Hall 412  
330-972-2574  
kc24@uakron.edu

## Program Information

The Associate of Art degree cultivates in students the habit of life-long learning through a diverse curriculum and teaches students to think critically and creatively about their perceptions of ideas, events and people. This degree is designed to position the student for successful employment, career advancement or more focused study at the baccalaureate level.

## Career Information

There are many careers a student can pursue with an Associate of Arts degree. For additional information please visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) (<http://www.bls.gov/>) or visit the UA Career Center.

## Bachelor Degree Program

Students earning an Associate of Arts can "step up" to many degrees offered at The University of Akron. Meet with your academic advisor to discuss all the options.

The following information has official approval of **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements

### Summary

Code	Title	Hours
	General Education	34
	Additional General Education	2-3
	Electives	24-23
	Total Hours	60

### General Education

Code	Title	Hours
	Mathematics, Statistics, and Logic	3
	Speaking	3
	Writing	6
	Arts/Humanities	9
	Natural Sciences	7
	Social Sciences	6
	Total Hours	34

## Additional General Education

Code	Title	Hours
<b>Complete one course:</b>		<b>2-3</b>
	Domestic Diversity	
	Global Diversity	
	Complex Issues Facing Society	
Total Hours		2-3

## Electives

Code	Title	Hours
<b>Complete 23-24 hours</b>		<b>23-24</b>
Total Hours		23-24

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111 or ENGL:110	English Composition I or English Composition I + Workshop	3-4
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
	Mathematics, Statistics or Logic Requirement	3
	Social Science Requirement	3
	Electives <sup>1</sup>	3
Hours		15-16

### Spring Semester

ENGL:112 or ENGL:222	English Composition II or Technical Report Writing	3
	Social Science Requirement	3
	Electives <sup>1</sup>	9
Hours		15

### 2nd Year

#### Fall Semester

	Natural Science Requirement without Lab <sup>3</sup>	3
	Humanities Requirement	3
	Additional General Education Course <sup>2</sup>	2
	Electives <sup>1</sup>	7
Hours		15

#### Spring Semester

	Natural Science Requirement with Lab <sup>3</sup>	4
	Arts or Humanities Requirement	3
	Arts Requirement	3
	Electives <sup>1</sup>	5
Hours		15
Total Hours		60-61

<sup>1</sup> 23-24 elective credits are required. You may choose any electives, but they should be in some logical sequence that leads towards an upper college degree program.

<sup>2</sup> A minimum of 36 hours of General Education courses are required to complete this degree. The requirements specified total 34 credits. It is recommended that students take a Global Diversity, Domestic Diversity or Complex Issues Facing Society course to fulfill the additional credit hours.

<sup>3</sup> Seven hours of science are required. A majors-track course in the natural sciences can substitute for a General Education Natural Science course.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.**

## Arts, Communication Option, AA

### Associate of Arts, Communication Option (202001AA)

### Contact Information

Dr. Katie Cerrone  
Program Coordinator  
Leigh Hall 412  
330-972-2574  
kc24@uakron.edu

### Program Information

The Associate of Arts degree cultivates in students the habit of life-long learning through a diverse curriculum and teaches students to think critically and creatively about their perceptions of ideas, events and people. This degree is designed to position the student for successful employment, career advancement or more focused study in Communication at the baccalaureate level.

### Career Information

There are many careers a student can pursue with an Associate of Arts degree. For additional information please visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) (<https://nam03.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.bls.gov%2F&data=02%7C01%7Csjj%40uakron.edu%7C3d9c4bf7309a42537fee08d7e83f4e0f%7Ce8575dedd7f94ecea4aa0b32991aeedd%7C0%7C0%7C637233230913435252&sdata=wdFJD1DvDDyen2jDZ8tptMsjr2An05yBff7JL%2FxFWF1A%3D&reserved=0>) or visit the UA Career Center.

### Bachelor Degree Program

Students earning an Associate of Arts - Communication Option can “step up” to the Bachelor of Arts in Communication or other degrees offered at The University of Akron. Meet with your academic advisor to discuss all the options.

The following information has official approval of the **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment

with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements Summary

Code	Title	Hours
	General Education Requirement	34
	Required Courses	17
	Communication Elective Courses	9
	Total Hours	60

### General Education Requirement

Code	Title	Hours
	Writing Requirement	6
	Mathematics, Statistics, and Logic Requirement	3
COMM:105	Introduction to Public Speaking <sup>1,8</sup>	3
	Arts and Humanities Requirement <sup>7</sup>	9
	Natural Science Requirement (with Lab) <sup>3</sup>	7
	Social Science Requirement	6
	Total Hours	34

### Required Courses

Code	Title	Hours
COMM:101	Introduction to Communication <sup>4</sup>	3
COMM:219	Introduction to Public Relations	3
	or COMM:274 Introduction to the Media Industries	
	or COMM:360 Theories of Rhetoric	
COMM:228	ZTV <sup>6</sup>	1
	or COMM:230 WZIP-FM	
	or COMM:232 Buchtelite	
COMM:245	Argumentation <sup>4</sup>	3
COMM:325	Intercultural Communication <sup>8</sup>	3
	Beginning Language I <sup>5</sup>	4
	Total Hours	17

### Communication Elective Courses

Code	Title	Hours
<b>Communication Elective Courses (choose 3): You are allowed to take any 3 courses listed below but it is strongly recommended that you choose courses from the same area. Only 200 level courses are required to complete the degree. However, 300 level courses may be used for electives if you choose to take them.</b>		<b>9</b>
COMM:384	Communication Research <sup>4</sup>	

#### Public Relations Electives

COMM:307	Principles of Social Media	
COMM:219	Introduction to Public Relations	
COMM:303	Public Relations Writing	
COMM:309	Public Relations Publications	

#### Media Studies Electives

COMM:210	Multiplatform Production <sup>4</sup>	
COMM:274	Introduction to the Media Industries	
COMM:364	Legal Issues in Media	

COMM:300	Newsriting Across the Media	
COMM:317	Topics in Media Production	
COMM:368	Basic Audio & Video Editing	
<i>Strategic Organizational Communication Electives</i>		
COMM:226	Interviewing	
COMM:227	Non-Verbal Communication	
COMM:324	Interpersonal Communication	
COMM:352	Persuasion	
COMM:305	Communication Theory	
COMM:344	Small Group Communication	
COMM:360	Theories of Rhetoric	
Total Hours		9

- <sup>1</sup> A grade of C or better is required in order to graduate
- <sup>2</sup> You must complete 32 credit hours in your first year to meet the prerequisite for HIST:210 Humanities in the Western Tradition from Ancient Times to 1500 and HIST:221 Humanities in the World since 1300
- <sup>3</sup> Seven hours of science are required. A majors-track course in the natural sciences from the Ohio Transfer Module can substitute for a General Education Natural Science course
- <sup>4</sup> This is a core course for a Communication Bachelor's Degree
- <sup>5</sup> SLPA:101 American Sign Language I may be taken in place of Beginning Language I.
- <sup>6</sup> Students who do not wish to participate in a co-curricular activity may instead take one additional 3 credit elective from the list of Communication Elective Courses.
- <sup>7</sup> It is recommended that a student choose one Art or Humanities course that also satisfies the Global Diversity requirement.
- <sup>8</sup> This course meets both General Education and Communications degree requirements.
- <sup>9</sup> This degree requires that you take a minimum 36 credit hours of General Education courses.

## Recommended Sequence

1st Year		Hours
Fall Semester		
ENGL:111	English Composition I	3-4
or ENGL:110	or English Composition I + Workshop	
COMM:105	Introduction to Public Speaking <sup>1</sup>	3
COMM:101	Introduction to Communication <sup>5</sup>	3
	Mathematics, Statistics or Logic Requirement	3
	Social Science Requirement	3
Hours		15-16
Spring Semester		
ENGL:112	English Composition II	3
or ENGL:222	or Technical Report Writing	
COMM:219	Introduction to Public Relations	3
or COMM:324	or Interpersonal Communication	
or COMM:274	or Introduction to the Media Industries	
or COMM:360	or Theories of Rhetoric	
COMM:228	ZTV <sup>7</sup>	1
or COMM:230	or WZIP-FM	
or COMM:232	or Buchtelite	

XXXX:101	Beginning Language I <sup>6</sup>	4
	Natural Science Requirement with Lab <sup>3</sup>	4
Hours		15

### 2nd Year

Fall Semester		
COMM:325	Intercultural Communication	3
	Humanities Requirement <sup>8</sup>	3
	Social Science Requirement	3
	Communications Electives <sup>4</sup>	6
Hours		15

### Spring Semester

COMM:245	Argumentation	3
	Arts Requirement <sup>8</sup>	3
	Arts and Humanities Requirement <sup>8</sup>	3
	Natural Science Requirement <sup>3</sup>	3
	Communications Electives <sup>4</sup>	3
Hours		15
Total Hours		60-61

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

- <sup>1</sup> A grade of C or better is required in order to graduate
- <sup>3</sup> Seven hours of science are required. A majors-track course in the natural sciences from the Ohio Transfer Module can substitute for a General Education Natural Science course
- <sup>4</sup> Communication Elective Courses (choose 3): You are allowed to take any 3 courses listed below but it is strongly recommended that you choose courses from the same area. Only 200 level courses are required to complete the degree. However, 300 level courses may be used for electives if you choose to take them.
- <sup>6</sup> SLPA:101 American Sign Language I may be taken in place of Beginning Language I.
- <sup>7</sup> It is recommended that a student choose one Art or Humanities course that also satisfies the Global Diversity requirement.
- <sup>8</sup> This course meets both General Education and Communications degree requirements.

## Gerontology, Certificate Certificate in Gerontology (300006C)

This certificate program is a special course of study in gerontology that complements undergraduate degree programs in various departments and colleges throughout the University. Individuals who already hold an undergraduate degree may also pursue the certificate. The program represents a concentration involving current knowledge and research in gerontology. It adds another dimension to the knowledge and skills a student is able to offer in the many professions that are becoming specialized in research and service to adults and older adults. This course of study coordinates multi-disciplinary training of personnel in adult development and aging and helps to meet the critical shortage of trained individuals in the field of gerontology. Students also engage in interprofessional education, learning alongside students from different disciplines, which helps prepare students for employment in our increasingly team-based workforce.

## Requirements for Admission

To participate in the program, a student must:

- Obtain admittance to The University of Akron as an undergraduate or post-baccalaureate student.
- Submit an application to the program countersigned by the student's major academic advisor.
- Participate in an interview with a designated faculty member of the Institute for Life-Span Development and Gerontology.
- Consult with the Director or designated faculty member to formulate a program of study.
- Complete and submit the BCAS Add Program form.
- Receive written notification of admission from the Director of the Institute for Life-Span Development and Gerontology.

### Program Contact

Jennifer Stanley, Ph.D.  
Director, Institute for Lifespan  
Development & Gerontology  
Associate Professor, Psychology  
330-972-8376  
jstanley@uakron.edu

The following information has official approval of the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Gerontology" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. To participate in the program, a student must participate in an interview, receive written notification of admission, and consult with the Director or a designated faculty member of the Institute for Lifespan Development and Gerontology to formulate a program of study.

## Summary

Code	Title	Hours
Required Courses		12
Electives		3
Total Hours		15

## Required Courses

Code	Title	Hours
ILSD:450	Interdisciplinary Seminar in Life-Span Development & Gerontology	2
ILSD:495	Practicum in Life-Span Development & Gerontology	1-3
PSYC:475	Psychology of Adulthood & Aging <sup>1</sup>	4
SOCIO:343	Sociology of Aging <sup>1</sup>	3
Total Hours		10-12

## Electives

Code	Title	Hours
<b>Select three credits from the following:</b>		<b>3</b>
ILSD:485	Special Topics in Life-Span Development & Gerontology <sup>3</sup>	
SOCIO:365	Special Topics in Sociology <sup>2</sup>	
HCM:480	Introduction to Health-Care Management <sup>1</sup>	
CHFD:441	Family Relationships in Middle and Later Years	
SLPA:110	Introduction to Disorders of Communications	
PSYC:330	Emotion Across the Lifespan	
SOWK:349	Integrated Human Behavior and Health	
PSYC:230	Developmental Psychology	
Total Hours		3

- <sup>1</sup> In the absence of the prerequisites for PSYC:475 Psychology of Adulthood & Aging, SOCIO:343 Sociology of Aging, HCM:480 Introduction to Health-Care Management, the student in this certificate may request permission of the instructor to waive the prerequisite.
- <sup>2</sup> ILSD:495 Practicum in Life-Span Development & Gerontology and SOCIO:365 Special Topics in Sociology are typically offered for 3 credits.
- <sup>3</sup> ILSD:485 Special Topics in Life-Span Development & Gerontology courses are typically offered for 3 credits.
- <sup>4</sup> Students may also use Independent Study to fulfill elective requirement. In special cases, more than one course in a major department may be used with permission.

## Global Studies, BA

### Bachelor of Arts in Global Studies (300106BA)

Global Studies is an multidisciplinary major within the College of Arts and Sciences that includes the humanities, social sciences, languages, and the natural sciences and prepares students to understand and appreciate the interconnected and interdependent nature of the local, national, and international communities that they will enter after graduation by developing a global mindset in relation to the academic, cultural, linguistic, and professional dimensions of a global environment.

Program Contact: Yang Lin, Ph.D. Director Professor of Communication Email: GlobalStudies@uakron.edu Office: 411A, College of Arts & Sciences Building (CAS)

The following information has official approval of **The Buchtel College of Arts & Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Mindset Courses	12
	Language Courses	9
	Elective Categories and Courses	18
	Additional Credits for Graduation *	33
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## College of Arts & Sciences Requirements

Code	Title	Hours
Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.		
	<i>Foreign Language</i>	<i>14</i>
	101 Beginning I	
	102 Beginning II	
	201 Intermediate I	
	202 Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Mindset Courses

Code	Title	Hours
Students must include at least three different disciplines from among these options. At least three credits must be at the 300 level		
POLIT:150	World Politics & Government	
ANTH:251	Human Diversity	
ENGL:389	Special Topics: Literature & Language	
GEOG:250	World Regional Geography	
GEOG:275	Geography of Cultural Diversity	
HIST:221	Humanities in the World since 1300	
PHIL:200	Philosophy of World Religions	
HIST:351	Global History: Encounters and Conflicts	
PHIL:329	Philosophy of International Law	
SOCIO:321	Population, Environment, and Health	
COMM:325	Intercultural Communication	
	<b>Total Hours</b>	<b>12</b>

## Language Courses

Code	Title	Hours
Students must choose at least nine credits at or above the 300 level in the same modern international language.		
		<b>9</b>

## Education Abroad

Code	Title	Hours
Students will participate in an education-abroad opportunity of at least one semester (or its equivalent) in length and which include courses and course credit that may be applied in fulfillment of appropriate Elective Categories and/or Language requirements, provided that they are transferable and meet with the approval of the program director.		

## Experiential Courses

Code	Title	Hours
If they are unable to participate in a study-abroad experience, some students may be allowed to fulfill that requirement and earn credit from a university-approved community-based experience that includes global content and related opportunities at the discretion of the program director. That credit may be applied toward the fulfillment of elective credit for this program, provided that it is consistent with one of the Elective Categories.		

## Internship

Code	Title	Hours
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An internship may be used for Elective credit (the number of credits is flexible, though often 3 credits are earned) at the discretion of the program director, provided that its focus and activity is primarily related to a global theme and it conforms to one of the Elective Categories. Examples of internships can include service at institutions such as the Woodrow Wilson International Center for Scholars, the Council on Foreign Relations, the World Health Organization, an embassy or consulate, or a legislative committee dedicated to international activity and affairs.

## Elective Categories and Courses

Code	Title	Hours
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Students must choose their electives from within one of the following Concentrations and those courses must include at least two different disciplines. At least nine credits must be at the 300 level or higher and at least an additional three credits must be at the 400 level.

### Global Health

ANTH:105	Human Evolution	18
ANTH:309	Medicine & the Humanities	
ANTH:382	Evolution and Human Behavior	
ANTH:457	Medical Anthropology	
HIST:487	Science and Technology in World History	
SPAN:307	Spanish Conversation: Health Professions & First Responders	
SPAN:308	Spanish Composition: Health Professions & First Responders	
PHIL:207	Food Ethics	
PHIL:361	Biomedical Ethics	
PHIL:365	Environmental Ethics	
PHIL:464	Philosophy of Science	
POLIT:413	Global Public Health Threats	
SOCIO:342	Sociology of Health & Illness	

### Global Justice and Inequality

ANTH:358	Indians of North America	
ANTH:370	Globalization and Culture	
ANTH:416	Anthropology of Sex and Gender	
ENGL:362	World Literatures	
ENGL:467	Modern European Fiction	
ENGL:468	International Poetry	
HIST:351	Global History: Encounters and Conflicts	
HIST:378	Spanish Conquest and Colonization of the Americas	
HIST:379	Modern Latin America	
HIST:382	The Vietnam War	
HIST:400	Gender and Culture in China	
HIST:409	Imperial Spain, 1469-1700	
HIST:416	Modern India	
HIST:438	Nazi Germany	
HIST:461	The United States as a World Power	
HIST:468	African-American Social & Intellectual History	
HIST:469	African-American Women's History	

HIST:476	Central America & the Caribbean	
HIST:489	Ottoman State and Society	
HIST:498	Race, Nation, and Class in the Middle East	
PHIL:200	Philosophy of World Religions	
PHIL:329	Philosophy of International Law	
PHIL:456	Philosophy of Race & Ethnicity	
PHIL:421	Philosophy of Law	
POLIT:300	Comparative Politics	
POLIT:311	Developing States in World Politics	
POLIT:313	International Law	
POLIT:321	European Politics	
POLIT:326	Politics of Developing Nations	
POLIT:345	World Politics in Film	
POLIT:406	Comparative Constitutional Law	
POLIT:410	International Security Policy	
POLIT:414	Wealth and Power Among Nations	
SOCIO:320	Social Inequalities	
SOCIO:441	Sociology of Law	
SOCIO:455	Family Violence	

### Communities, Conflict, and Human Flourishing

CLAS:361	The Literature of Greece	
CLAS:362	The Literature of Rome	
ANTH:357	Magic, Myth, & Religion	
ENGL:366	European Background of English Literature	
ENGL:389	Special Topics: Literature & Language	
HIST:285	World Civilizations: China	
HIST:286	World Civilizations: Japan	
HIST:287	World Civilizations: Southeast Asia	
HIST:288	World Civilizations: India	
HIST:289	World Civilizations: Middle East	
HIST:290	World Civilizations: Africa	
HIST:291	World Civilizations: Latin America	
HIST:292	Global Societies: Africa	
HIST:294	Global Societies: India	
HIST:295	Global Societies: Japan	
HIST:296	Global Societies: Latin America	
HIST:297	Global Societies: Middle East	
HIST:301	Modern China	
HIST:303	Modern East Asia	
HIST:324	Europe from World War I to the Present	
HIST:325	Women in Modern Europe	
HIST:330	Modern Africa	
HIST:336	Russia Since 1801	
HIST:337	France from Napoleon to De Gaulle	
HIST:341	Islamic Fundamentalism & Revolution	
HIST:372	Selected Topics: European History	
HIST:377	History of Women in Latin America	
HIST:418	History of Brazil Since 1500	
HIST:443	Churchill's England	
HIST:495	Special Studies: European History	
HIST:499	Women and Gender in Middle Eastern Societies	
ARAB:210	Arabic Culture through Film	

ARAB:302	Arabic Media
ARAB:303	Introduction to Modern Arabic Literature
ARAB:304	Cultural Readings in Arabic
CHIN:210	Chinese Culture Through Film
CHIN:303	Chinese Conversation Through Media
JAPN:210	Japanese Culture through Film
FREN:300	Contemporary French and Francophone Cultures
FREN:311	Contemporary French Society
FREN:413	French Cinema
FREN:427	20th Century French Literature
FREN:430	Contemporary Quebec
SPAN:360	Hispanic Culture through Film
SPAN:407	Survey of Hispanic Literature: Spain
SPAN:408	Survey of Hispanic Literature: Spanish-America
SPAN:414	Cultural Politics in the River Plate
SPAN:418	20th Century Spain: The Avant-Garde in Literature & Art
SPAN:419	Spanish Civil War & its Cultural Impact
SPAN:425	20th Century Spanish-American Novel
SPAN:430	Women in 20th Century Hispanic Literature
SPAN:431	Hispanic Culture: Spain
SPAN:432	Hispanic Culture: Spanish America
PHIL:333	Philosophy of Science and Religion
PHIL:424	Existentialism
PHIL:455	Philosophy of Feminism
PSYC:250	Psychology of Diversity
SOCIO:325	Sociology of Women in Global Society
SOCIO:421	Race & Ethnic Relations
PSYC:435	Cross-Cultural Psychology
THEA:100	Experiencing Theatre
THEA:108	Introduction to the Visual Arts of World Theatre
THEA:435	History of Theatre and Dramatic Literature: 1800 to Present
NMED:401	History of Performance and New Media
<b>Border Crossings and Migration</b>	
PAFS:201	Introduction to Pan-African Studies
ANTH:101	Human Cultures
ANTH:251	Human Diversity
GEOG:250	World Regional Geography
GEOG:350	Geography of the United States & Canada
GEOG:363	Africa South of the Sahara
GEOG:353	Latin America
GEOG:356	Europe
GEOG:360	Asia
GEOG:460	Political Geography
HIST:354	American Immigration
HIST:371	Selected Topics: North American History
HIST:381	History of Canada
HIST:417	Latin America and the United States
HIST:475	Mexico
HIST:485	History, Communities, and Memory
ARAB:311	Arabic Cultural Experience Abroad
CHIN:311	Chinese Cultural Experience Abroad
FREN:312	French/Francophone Cultural Experience Abroad
SPAN:311	Spanish/Spanish-American Cultural Experience
PHIL:481	Philosophy of Language
PHIL:340	Eastern Philosophy
SOCIO:321	Population, Environment, and Health
COMM:325	Intercultural Communication
THEA:467	Multi-Cultural Theatre
<b>Environment, Energy, and Innovation</b>	
GEOG:310	Physical & Environmental Geography
GEOG:415	Environmental Planning
GEOL:100	Earth Science
GEOL:135	Geology of Energy Resources
GEOL:211	Introduction to Environmental Science
HIST:471	American Environmental History
PHIL:327	Law and Morality
PHIL:364	Digital Ethics
PHIL:366	Engineering Ethics
PHIL:461	Neuroethics
POLIT:333	Social Entrepreneurship
POLIT:417	Environmental Security and Climate Politics
COMM:210	Multiplatform Production
<b>Global Human Origins</b>	
CLAS:363	Women in Ancient Greece and Rome
ANTH:404	Primates: Behavior, Morphology and Evolution
ANTH:310	Human Paleontology: The Australopithecines
ANTH:311	Human Paleontology: Genus Homo
ANTH:430	Seminar: Human Origins
ANTH:320	The Anthropology of Food
ANTH:300	Historical Archaeology
ANTH:313	Archaeology of Greece
ANTH:314	Archaeology of Rome
ANTH:345	Egyptology
ANTH:360	Ancient Near Eastern Archaeology
HIST:200	Empires of the Ancient World
HIST:210	Humanities in the Western Tradition from Ancient Times to 1500
HIST:307	The Ancient Near East
PHIL:211	History of Ancient Philosophy
PHIL:312	History of Medieval Philosophy
PHIL:313	History of Modern Philosophy
<b>Security and Diplomacy</b>	
HIST:323	Europe from Revolution to World War, 1789-1914
HIST:342	The Crusades through Arab Eyes
HIST:360	United States Military History
HIST:395	Modern Iran
HIST:396	Iraq in Historical Perspective
HIST:401	Japan & the Pacific War, 1895-1945
HIST:429	Europe in the French Revolutionary Era-1789-1815
PHIL:323	Advanced Topics in Ethics
PHIL:361	Biomedical Ethics
PHIL:362	Business Ethics



PHIL:363	Ethics of Policing	
POLIT:150	World Politics & Government	
POLIT:304	Modern Political Thought	
POLIT:310	International Politics & Institutions	
POLIT:328	American Foreign Policy Process	
POLIT:334	Law, Mediation, and Violence	
POLIT:337	Terrorism: Perpetrators, Politics and Response	
POLIT:353	Future International Threats	
POLIT:363	Crime, Punishment, Politics: A Comparative Perspective	
POLIT:400	Political Extremism & Violence	
POLIT:405	Politics in the Middle East	
POLIT:418	Weapons of Mass Destruction	
POLIT:445	Al Qaeda and ISIS	
POLIT:446	National Security Intelligence	
POLIT:447	Counterterrorism	
POLIT:448	Intelligence Analysis	
POLIT:463	Human Rights in World Politics	
POLIT:480	Policy Problems in Political Science	
PSYC:340	Social Psychology	
PSYC:380	Industrial/Organizational Psychology	
PSYC:425	Psychology of Hate	
Total Hours		18

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ANTH:251	Human Diversity <sup>1</sup>	3
ENGL:389	Special Topics: Literature & Language <sup>1</sup>	3
FREN:101	Beginning French I <sup>5</sup>	4
	Speaking Requirement	3
	Mathematics, Statistics, and Logic Requirement	3
Hours		16

### Spring Semester

POLIT:150	World Politics & Government <sup>1</sup>	3
GEOG:275	Geography of Cultural Diversity <sup>2</sup>	2
FREN:102	Beginning French II <sup>5</sup>	4
	Writing Requirement	3
	Arts/Humanities Requirement	3
Hours		15

### 2nd Year

Fall Semester		Hours
ENGL:362	World Literatures <sup>1</sup>	3
FREN:201	Intermediate French I <sup>5</sup>	3
	Writing Requirement	3
	Arts/Humanities Requirement	3
	Arts/Humanities Requirement	3
Hours		15

### Spring Semester

FREN:300	Contemporary French and Francophone Cultures <sup>2</sup>	3
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PHIL:331	Philosophy of Religion <sup>2</sup>	3
FREN:202	Intermediate French II <sup>5</sup>	3
	Mathematics, Statistics, and Logic Requirement	3
	General Elective Course	3
Hours		15

### 3rd Year

#### Fall Semester

HIST:325	Women in Modern Europe <sup>2</sup>	3
FREN:301	French Conversation <sup>5</sup>	3
	Social Science Requirement	3
	Social Science Requirement	3
	General Elective Course	3
Hours		15

#### Spring Semester

HIST:337	France from Napoleon to De Gaulle <sup>2</sup>	3
FREN:302	French Composition <sup>5</sup>	3
	Natural Science Requirement	3
	Complex Issues Requirement	3
	General Elective Course	3
Hours		15

#### Summer Semester

FREN:422	French: Special Topics in Advanced Language Skills, Culture or Literature	1-4
	Study Abroad Summer Session <sup>3,5</sup>	3
Hours		4-7

### 4th Year

#### Fall Semester

SOCIO:325	Sociology of Women in Global Society <sup>2</sup>	3
	Natural Science w/ Lab Requirement	4
	Domestic Diversity Requirement	
	General Elective Course	3
	General Elective Course	3
Hours		13

#### Spring Semester

POLIT:395	Internship in Government & Politics <sup>4</sup>	3
	Global Diversity Requirement	3
	General Elective Course	3
	General Elective Course	3
Hours		12
Total Hours		120-123

<sup>1</sup> Mindset course

<sup>2</sup> Communities, Conflict, and Human Flourishing Major Category Elective

<sup>3</sup> l'Universite de Maine, Le Mans, France, includes host institution course on French language and culture. Although this activity often may take place prior to the conclusion of certain other courses, it will be considered to be a pedagogical culmination of the program.

<sup>4</sup> Internship at Consulate General of France in Cleveland

<sup>5</sup> Language Requirement for the Major

# Humanities Divisional, BA

## Bachelor of Arts, Humanities Divisional (390001BA)

This divisional major is appropriate for those desiring a Liberal Arts degree with a general emphasis in the humanities. The humanities division consists of the Departments of English, Modern Languages and Philosophy. These disciplines and the disciplines of History and the creative and dramatic arts (Art, Music, Theatre Arts) are included in a prescribed manner in this divisional degree.

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Humanities Requirements	54
	Additional Credits for Graduation *	18
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## College of Arts & Sciences Requirements

**Code Title Hours**

**Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.**

*Foreign Language* 14

101 Beginning I

102 Beginning II

201 Intermediate I

202 Intermediate II

SLPA:222 Survey of Deaf Culture in America (American Sign Language option only)

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Humanities Requirements

Requirements include earning a minimum of 54 credits, 24 credits of which must be at the 300/400 level, and 18 credits in each of three of the following fields.

**Code Title Hours**

### Humanities Fields

Select 18 credits in each of three of the following fields: 54

#### Classics

CLAS:289 Mythology of Ancient Greece

CLAS:361 The Literature of Greece

CLAS:362 The Literature of Rome

*Select 9 credits from the following*

CLAS:363 Women in Ancient Greece and Rome

CLAS:480 Reading & Research in Classical Studies

CLAS:499 Honors Project in Classics

CLAS:550 Select Topics: Ancient Cultures

#### English

Select 18 credits with nine credits of 300/400 level including at least two courses at the 400 level

#### History

Select 18 credits with a minimum of 10 credits of 300/400 level course work

<i>Modern Languages</i>	
Composition and Conversation (6 cr)	
Literature (6 cr)	
Linguistics and Culture-Civilization (6 cr)	
<i>Philosophy</i>	
PHIL:101	Introduction to Philosophy
PHIL:120	Introduction to Ethics
PHIL:170	Introduction to Logic
<i>Select 9 credits from the following</i>	
PHIL:125	Theory & Evidence
PHIL:150	Critical Thinking
PHIL:200	Philosophy of World Religions
PHIL:210	Logic for Lawyers
PHIL:211	History of Ancient Philosophy
PHIL:312	History of Medieval Philosophy
PHIL:313	History of Modern Philosophy
<i>Creative and Dramatic Arts</i>	
Select 18 credits non-performance courses in Art (ART) Music (MUSIC) or Theatre (THEA)	
Total Hours	54

## Latin American Studies, Certificate

### Certificate in Latin American Studies (300008C)

#### Program Contact

Martha Santos

Associate Professor, History

330-972-2686

santos@uakron.edu

The following information has official approval of the **Buchtel College of Arts & Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Latin American Studies" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. Course substitutions may be made with the approval of the director of the certificate program. Study abroad credits earned through The University of Akron are especially appropriate for such course substitutions.

## Summary

Code	Title	Hours
	Spanish/Portuguese Requirement <sup>1</sup>	3
	Interdisciplinary Electives	15
Total Hours		18

## Interdisciplinary Electives

Code	Title	Hours
<b>Select 15 credits from at least three departments: <sup>1</sup></b>		<b>15</b>
<i>Economics Department</i>		
ECON:460	Economics of Developing Countries	
<i>History Department</i>		
HIST:291	World Civilizations: Latin America	
HIST:373	Selected Topics: Other	
HIST:377	History of Women in Latin America	
HIST:378	Spanish Conquest and Colonization of the Americas	
HIST:379	Modern Latin America	
HIST:417	Latin America and the United States	
HIST:418	History of Brazil Since 1500	
HIST:496	Special Studies in History: Other <sup>2</sup>	
<i>International Business Department</i>		
INTB:421	Foreign Market Entry	
<i>Geography Department</i>		
GEOG:353	Latin America	
<i>Spanish Department</i>		
SPAN:311	Spanish/Spanish-American Cultural Experience	
SPAN:250	Hispanic Literature in Translation	
SPAN:408	Survey of Hispanic Literature: Spanish-America	
SPAN:414	Cultural Politics in the River Plate	
SPAN:425	20th Century Spanish-American Novel	
SPAN:427	Latino Cultures in the USA	
SPAN:430	Women in 20th Century Hispanic Literature	
SPAN:432	Hispanic Culture: Spanish America	
Total Hours		15

<sup>1</sup> Students must demonstrate competency in Spanish or Portuguese by completion of a minimum of 3 credits in Spanish or Portuguese at the 4th semester (202) or above at The University of Akron or the equivalent at another accredited institution. Students must consult the program director to plan a course of study.

<sup>2</sup> Students must select the topic Latin America.

## Multidisciplinary Studies, BAT

### Bachelor of Arts in Multidisciplinary Studies (300105BAT)

The Multidisciplinary Studies program is a self-designed major, allowing the student to examine traditional disciplines from diverse points of view and to plan a program of study targeted to his/her specific needs and interests. This program also serves students who desire to bring closure to their education when they have accumulated hours in varied areas without clear progress to a specific major or those who have divergent interests that cannot be accommodated in a traditional degree program.

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below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others. The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Foreign Culture Requirement	6
	Multidisciplinary Studies Requirements	54
	Additional Credits for Graduation *	26
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
	Complex Issues Facing Society	
	Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>		
	<b>Total Hours</b>	<b>34</b>

## Foreign Culture and College Requirements

Code	Title	Hours
	<b>A minimum of 6 credits of course work in foreign culture. Students may complete coursework in foreign language or sign language, courses focusing on a foreign culture (e.g., History of Mexico, Latin American Politics, etc.) or culture courses completed during a Study Abroad experience. Courses shall be selected by the student with approval of the Associate Dean. Note, courses used to meet General Education requirements (i.e. Global Diversity) will not also be counted towards the 6 credits of course work in foreign culture requirement.</b>	<b>6</b>
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
	Upper-level (300/400) courses both in and outside of the student's major;	
	or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops	
	<b>Total Hours</b>	<b>6</b>

## Multidisciplinary Studies Requirements

Code	Title	Hours
<b>Multidisciplinary Studies Tracks</b>		
<b>Select one of the following tracks:</b>		<b>54</b>
<i>Track 1<sup>1</sup></i>		
Primary area of focus		
	Select 21 hours in one BCAS program area	
Secondary area of focus		
	Select 15 to 18 hours in another area (may be a mixed or non-BCAS area)	
Tertiary area of focus		
	Select 15 to 18 hours in another area (may be a mixed area)	
<i>Track 2<sup>2</sup></i>		
Primary area of focus		
	Select 30 hours in one BCAS program area	
Secondary area of focus		
	Select 24 hours in another area (may be a mixed or non-BCAS area)	
	<b>Total Hours</b>	<b>54</b>

<sup>1</sup> A minimum of 9 upper level (300/400) credit hours are required in two of the three concentration areas. Two of the three concentration areas (including the primary area) must be within the Buchtel College of Arts and Sciences.

<sup>2</sup> A minimum of 9 upper level (300/400) credit hours are required in each concentration area.

Note: This is an individually designed degree and may be done only with approval of the BCAS Dean who oversees it.

## Science, AS Associate of Science (202005AS) Contact Information

Dr. Katie Cerrone

Program Coordinator  
Leigh Hall 412  
330-972-2574  
kc24@uakron.edu

## Program Information

The Associate of Science degree teaches students to think critically and creatively about their perceptions of ideas, events and people. This degree is for students who would like to pursue a science based degree. Core curriculum emphasizes mathematics and science, but also includes English, history, and social studies, while learning fundamental skills in analysis, research, composition and reading comprehension. This is a science intensive degree designed to position the student for successful employment, career advancement, or more focused study in STEM (science and health science, technology, engineering, mathematics) fields at the baccalaureate level.

Upon completion of the Associate of Science degree, students should demonstrate:

- the ability to make qualitative and quantitative judgments
- the ability to utilize critical thinking and analytical skills
- the ability to communicate in a clear, concise, and authentic manner
- a knowledge of science, technology, and mathematics and their effects on human activities

## Career Information

There are many careers a student can pursue with an Associate of Science degree. For additional information please visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) (<http://www.bls.gov/>) or visit the UA Career Center.

## Bachelor Degree Program

Students earning an Associate of Science can "step up" to many degrees offered at The University of Akron. Meet with your academic advisor to discuss all the options.

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Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements Summary

Code	Title	Hours
	General Education Requirement	36-37
	Electives	24-23
	<b>Total Hours</b>	<b>60</b>

## General Education Requirement

Code	Title	Hours
	Writing Requirement	6
	Mathematics, Statistics, and Logic Requirement	3
	Speaking Requirement	3
	Arts and Humanities Requirement	9
	Natural Science Requirement (with Lab) <sup>1</sup>	7
	Social Science Requirement	6
	Additional General Education Course <sup>2</sup>	2-3
	<b>Total Hours</b>	<b>36-37</b>

## Electives

Code	Title	Hours
	STEM Electives <sup>3</sup>	16
	General Electives	8-7
	<b>Total Hours</b>	<b>24-23</b>

<sup>1</sup> Seven hours of science are required. A majors-track course in the natural sciences from the Ohio Transfer Module can substitute for a General Education Natural Science course

<sup>2</sup> This degree requires that you take a minimum 36 credit hours of General Education courses. The requirements specified total 34 credits. It is recommended that students take a Global Diversity, Domestic Diversity or Complex Issues Facing Society course to fulfill the additional credit hours.

<sup>3</sup> 23-24 elective credits required. In the science program, a student is free to choose any electives. However, at least two-thirds of the credits must be in the natural sciences, mathematics, statistics, computer science, engineering, or health sciences.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.**

## Recommended Sequence

1st Year		Hours
Fall Semester		
ENGL:111 or ENGL:110	English Composition I or English Composition I + Workshop	3-4
	Natural Science Requirement with Lab <sup>1</sup>	4
	Electives <sup>3</sup>	3
	Social Science Requirement	3
	Mathematics, Statistics, and Logic Requirement	3
	<b>Hours</b>	<b>16-17</b>
Spring Semester		
ENGL:112 or ENGL:222	English Composition II or Technical Report Writing	3
	Natural Science Requirement without Lab <sup>1</sup>	3
	Electives <sup>3</sup>	6
	Social Science Requirement	3
	<b>Hours</b>	<b>15</b>

**2nd Year****Fall Semester**

COMM:105	Introduction to Public Speaking	3
	Humanities Requirement	3
	Electives <sup>3</sup>	6
	Additional General Education Course <sup>2</sup>	2-3
Hours		14-15

**Spring Semester**

	Arts or Humanities Requirement	3
	Arts Requirement	3
	Electives <sup>3</sup>	9-8
Hours		15-14
Total Hours		60-61

<sup>1</sup> Seven hours of science are required. A majors-track course in the natural sciences from the Ohio Transfer Module can substitute for a General Education Natural Science course.

<sup>2</sup> This degree requires that you take a minimum 36 credit hours of General Education courses. The requirements specified total 34 credits. It is recommended that students take a Global Diversity, Domestic Diversity or Complex Issues Facing Society course to fulfill the additional credit hours.

<sup>3</sup> 23-24 elective credits required. In the science program, a student is free to choose any electives. However, at least two-thirds of the credits must be in the natural sciences, mathematics, statistics, computer science, engineering, or health sciences.

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

## Social Science, Divisional PPE Track, BA

### Bachelor of Arts in Social Science, Philosophy, Political Science, and Economics (PPE) Track (390004BA)

More on the Social Science Divisional PPE major (<https://www.uakron.edu/philosophy/academics/>)

The Philosophy, Political Science, and Economics Departments have collaborated to create the Social Sciences Division PPE track. This interdisciplinary degree consists of courses from all 3 departments and can open the door to graduate study in any of these disciplines as well as law school.

**Program Contact**

Dr. Christopher Buford  
Undergraduate Advisor, Department of Philosophy  
330-972-6959  
cb72@uakron.edu

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requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Social Sciences PPE Requirements	54
	Additional Credits for Graduation <sup>*</sup>	18
Total Hours		120

<sup>\*</sup> Bachelor's degrees require a minimum of 120 credit hours for graduation

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours		34

## College of Arts & Sciences Requirements

Code	Title	Hours
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Degree requirements in Arts & Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.

<i>Foreign Language</i>		14
101	Beginning I	
102	Beginning II	
201	Intermediate I	
202	Intermediate II	
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	

**Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:**

Upper-level (300/400) courses both in and outside of the student's major;

or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops

## Social Sciences PPE Requirements

Social Sciences PPE Requirements 54 credits, which must include a minimum of 15 credits in each of the following 3 fields.

Code	Title	Hours
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### Requirements

Select a minimum of 15 credits in each field below:

#### *Philosophy*

PHIL:120	Introduction to Ethics	3
PHIL:170	Introduction to Logic	3
PHIL:464	Philosophy of Science	3
or PHIL:421	Philosophy of Law	
PHIL:3XX/4XX	300/400-level Philosophy Electives	6

#### *Political Science*

POLIT:301	Introduction to Political Research	3
POLIT:203	Introduction to Political Thought	3
POLIT:3XX/4XX	300/400-level Political Science Electives	9

#### *Economics*

ECON:244	Introduction to Economic Analysis	3
ECON:400	Intermediate Macroeconomics	3
ECON:410	Intermediate Microeconomics	3
ECON:3XX/4XX	300/400-level Economics Electives	6

### Social Science PPE Electives

Select nine credits <sup>1</sup>		9
Total Hours		54

<sup>1</sup> 9 credits can be taken in either Philosophy, Political Science, or Economics. It is recommended they be taken at the 300/400 level.

## Social Sciences, Divisional PSP Track, BA

### Bachelor of Arts in Social Science, Philosophy, Sociology, and Psychology (PSP) Track (390006BA)

More on the Social Science Divisional PSP major (<https://www.uakron.edu/philosophy/academics/>)

The Philosophy, Sociology, and Psychology Departments have collaborated to create the Social Sciences Division PSP track degree. This interdisciplinary degree consists of courses from all 3 departments.

#### Program Contact

*Dr. Christopher Buford*

*Undergraduate Advisor, Department of Philosophy*

330-972-6959

cb72@uakron.edu

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	College of Arts & Sciences Requirements	14
	Social Sciences PSP Requirements	54
	Additional Credits for Graduation *	18
	Total Hours	120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## College of Arts & Sciences Requirements

Code	Title	Hours
<b>Degree requirements in Arts &amp; Sciences include the demonstration of ability to use another language by completion of the second year of a foreign language.</b>		
<i>Foreign Language</i>		<b>14</b>
101 Beginning I		
102 Beginning II		
201 Intermediate I		
202 Intermediate II		
SLPA:222	Survey of Deaf Culture in America (American Sign Language option only)	
<b>Students must also complete a minimum of 40 credits (excluding workshops) consisting of either:</b>		
Upper-level (300/400) courses both in and outside of the student's major;		
or other courses outside the major department approved by the student's major department chair (permission should be obtained prior to enrollment); these may not include workshops		
Total Hours		54

## Social Sciences PSP Requirements

54 credits, which must include a minimum of 15 credits in each of the following 3 fields.

Code	Title	Hours
<b>Requirements</b>		
<i>Philosophy</i>		
PHIL:101	Introduction to Philosophy	3
or PHIL:120	Introduction to Ethics	

PHIL:371	Philosophy of Mind	3
PHIL:461	Neuroethics	3
PHIL:464	Philosophy of Science	3
Select three elective credits from the following:		3
PHIL:333	Philosophy of Science and Religion	
PHIL:340	Eastern Philosophy	
PHIL:455	Philosophy of Feminism	
PHIL:424	Existentialism	
PHIL:426	Phenomenology	
PHIL:480	Seminar in Philosophy	
PHIL:481	Philosophy of Language	
<i>Sociology</i>		
SOCIO:100	Introduction to Sociology	3
SOCIO:315	Sociological Social Psychology	3
Select nine elective credits from the following:		9
SOCIO:320	Social Inequalities	
SOCIO:340	The Family	
SOCIO:421	Race & Ethnic Relations	
SOCIO:428	Victim in Society	
SOCIO:433	Sociology of Deviant Behavior	
SOCIO:435	Sociology of Love	
SOCIO:447	Sociology of Gender, Sex, and Sexualities	
<i>Psychology Core</i>		
PSYC:100	Introduction to Psychology	3
PSYC:230	Developmental Psychology	4
PSYC:340	Social Psychology	4
Select four elective credits from the following:		4
PSYC:320	Biopsychology	
PSYC:335	Dynamics of Personality	
PSYC:345	Cognitive Processes	
PSYC:420	Abnormal Psychology	
PSYC:435	Cross-Cultural Psychology	
PSYC:474	Psychology of Women	
<b>Social Science PSP Electives</b>		
Select nine credits <sup>1</sup>		9
Total Hours		54

<sup>1</sup> 9 credits can be taken in either Philosophy, Sociology, or Psychology.

## Technical Studies, ATS

### Associate of Technical Studies (230000ATS)

### Contact Information

Assistant Dean  
Kelly Herold  
Polsky 215  
330-972-8832  
kherold@uakron.edu

### Program Information

The Associate of Technical Studies enables students to combine certifications (state, national, vendor), earned through an educational



entity or a place of employment, with general education courses to meet the associate degree requirements.

For information about the one-year Associate of Technical Studies degree, contact Assistant Dean Herold.

The following information has official approval of the **The Buchtel College of Arts and Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements Summary

Code	Title	Hours
	General Education Requirement	21
	Additional Requirements	39
	Total Hours	60

## General Education Requirement

Code	Title	Hours
	Writing Requirement	6
	Mathematics, Statistics, and Logic Requirement <sup>1</sup>	3
	Speaking Requirement	3
	Natural Science Requirement	3
	Social Science Requirement	6
	Total Hours	21

## Additional Requirements

Code	Title	Hours
	Block Credits <sup>3</sup>	8-30
	General Electives <sup>2</sup>	31-9
	Total Hours	39

<sup>1</sup> The mathematics requirement varies by department. Please consult an adviser for specific requirements. (Students enrolling in a higher-level mathematics course may use it to meet their General Education requirement.) See General Education requirements for listing of courses.

<sup>2</sup> In the technical studies program, a student is encouraged to complete general education requirements as electives.

<sup>3</sup> A student is eligible to receive up to 30 credits of block credit from licensure in a technical field including but not limited to: Automotive/ Collision Repair, Cosmetology, Dental Assisting, HVAC, Insurance, Massotherapy, Real Estate, US Military Service, Welding. Students interested in this degree must consult with degree coordinator prior to admission to this program. Block Credits and Elective Credits are subject to approval.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3-4
or ENGL:110	or English Composition I + Workshop	
	Math Requirement <sup>1</sup>	3
	Social Science Requirement	6
	Natural Science Requirement without Lab	3
	Hours	15-16

### Spring Semester

ENGL:112	English Composition II	3
or ENGL:222	or Technical Report Writing	
COMM:105	Introduction to Public Speaking	3
	Electives <sup>2,3</sup>	9
	Hours	15

### 2nd Year

Fall Semester		Hours
	Electives <sup>2,3</sup>	15
	Hours	15
Spring Semester		Hours
	Electives <sup>2,3</sup>	15
	Hours	15
	Total Hours	60-61

<sup>1</sup> The mathematics requirement varies by department. Please consult an adviser for specific requirements (students enrolling in a higher-level mathematics course may use it to meet their General Education requirement). See General Education requirements for listing of courses.

<sup>2</sup> In the technical studies program, a student is encouraged to complete general education requirements as electives.

<sup>3</sup> A student is eligible to receive up to 30 credits of block credit from licensure in a technical field including but not limited to: Automotive/ Collision Repair, Cosmetology, Dental Assisting, HVAC, Insurance, Massotherapy, Real Estate, US Military Service, Welding. Students interested in this degree must consult with degree coordinator prior to admission to this program. Block Credits and Elective Credits are subject to approval.

**Total University of Akron Credits = 30 minimum**  
**Block Credits = minimum of 8 up to 30<sup>3</sup>**  
**Electives = minimum of 9 up to 31 credits**  
**Total Credits for Degree = 60 minimum**

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

## College of Business

### Effective Instruction

The College of Business emphasizes effective teaching and participatory learning as the primary means to educate and prepare future business leaders. Faculty members are strongly committed to being involved with and accessible to Business students. The College attempts to provide relatively small class sections throughout the curriculum.

Effective teaching and participatory learning includes challenging our students through a variety of teaching methods. The College relies upon the case method, seminar presentation, skills performance methods (oral and written), discussion method, and experiential learning in addition to traditional lectures in the classroom. Relevant learning experiences, such as internships and co-ops, are also important components of the Business curriculum. These methods are used to:

1. involve students actively in their own education by requiring preparation and engagement;
2. instill in students the ability to educate themselves as a life-long habit; and
3. prepare students to more effectively and quickly bridge the gap to competent business leadership.

Business students receive a well-rounded business education. Students acquire integrated business knowledge the following set of robust business skills:

- Quantitative
- Analytical
- Collaboration and teamwork
- Written communication and presentation
- Problem solving

Business faculty are especially focused on preparing students to be data savvy and well-versed in business analytics.

Exposure to business practitioners - in and out of the classroom - assists in achieving these goals. The College of Business introduces students to an understanding of professionalism, public service responsibilities and the role of business in society. This requires that students develop a respect for learning and a preference for solutions that advance the public good. Further, the College emphasizes creativity, open-mindedness, ethical behavior, and diverse cultural perspectives.

Since the College's inception, equal emphasis has been placed on broad basic theoretical principles and immediate applied practices within the curriculum. Classroom knowledge is supplemented with a strong professional development program, contact with business practitioners, the College's excellent tradition of vibrant student organizations, and invited speaker programs, to help students engage with the business community.

## College Requirements

### Requirements for Admission

To be admitted to a major in The College of Business, students must have completed the courses listed below and have an overall grade-point average of 2.5 or higher:

Code	Title	Hours
ENGL:111 & ENGL:112	English Composition I and English Composition II	6
COMM:105 or COMM:106	Introduction to Public Speaking Effective Oral Communication	3
ECON:200 or ECON:201	Principles of Microeconomics Principles of Macroeconomics	3
MATH:145 or MATH:210	Algebra for Calculus Calculus with Business Applications	4
Select one of the following:		
ACCT:201	Accounting Principles I	
ACCT:250	Spreadsheet Modeling & Decision Analysis	
ENTRE:201	Introduction to Entrepreneurship	
BLAW:220	Legal & Social Environment of Business	
MKTG:205	Marketing Principles	

### Other Admissions

Students accepted into the University Honors College as business majors are automatically admitted to a major in the College of Business. Incoming first-year students with appropriate credentials may be admitted directly to a major in the College upon application to the University.

First-year students who begin study in another major at the University, and would have met the requirements to be directly admitted to a major in the College of Business, from high school, have until the last day of instruction in the first semester of their first year to be admitted to the major based upon the high school credentials. After this time, students can be admitted to the College of Business based upon the above requirements.

### Transfer Student Admission

Transfer students from accredited two-year and four-year colleges are welcome. Students from outside the University must meet the same grade-point average, credit hours and coursework standards of University of Akron students. Transfer students who have not met the above coursework and academic performance standards will be admitted as pre-major to the College until all admission requirements are met.

### Transfer/Transient Course Work

Some courses taken out of the University may be accepted in lieu of college requirements. The College will consider transfer/transient coursework from regionally accredited community colleges and other AACSB accredited institutions in accordance with the State of Ohio transfer policies and requirements laid out in this Bulletin. Courses will be evaluated based on content, complexity, grading standards and an earned grade of "C" or higher.

If transferring from another regionally accredited community college, it is anticipated that students will have devoted the major share of their academic effort to the completion of basic requirements in the general education and pre-business areas. The College will evaluate courses from regionally accredited non-AACSB accredited colleges for course-to-course transfer/transient substitution for College of Business 100 and 200 level courses only.

### Continuation of the Baccalaureate Program

A Business student shall be subject to academic probation if the accumulated grade-point average for all courses is less than 2.0. College

of Business students who are on academic probation for two consecutive semesters will be considered for academic dismissal. Probation and dismissal are decided by the Dean of the College in accordance with policies laid out in this Bulletin. Students on academic probation are required to meet with their College of Business academic advisor in order to make changes to the academic schedule as well as to participate in requirements for students on academic probation throughout the year.

## Degrees

The College of Business offers the following baccalaureate degrees: the Bachelor of Science in Accountancy, the Bachelor of Business Administration, the Bachelor of Arts in Economics, and the Bachelor of Science in Sport Analytics.

## Integrated Core Curriculum

The Integrated Core Curriculum is made of 42 credits and serves as the foundation of the business curriculum. The purpose of the Integrated Core Curriculum is to provide a basic understanding of the business disciplines, to contribute to a student's choice of major, and to fulfill prerequisites for courses in the major. See an advisor for more information on the core curriculum and related requirements.

The following learning goals form the foundation of the learning activities that occur within the Integrated Core Curriculum:

1. Demonstrate integrated business knowledge (accounting, business finance, marketing, business law, supply chain and operations management, management principles, business statistics and analytics, spreadsheet modeling, international business, and strategic management)
2. Analyze data using quantitative techniques
3. Be informed decision makers
4. Develop leadership and collaboration competencies
5. Use writing and oral communication skills to persuade and to mobilize action
6. Demonstrate a global perspective and cross-cultural awareness
7. Recognize and understand how to address ethical concerns

The Integrated Core Curriculum consists of 14 courses arranged in sequential order on which to build a foundation.

## Contact the College of Business

To declare a major, minor or certificate in the College of Business, meet with an academic advisor in the College of Business. Please visit the College of Business advising website to schedule an appointment with an advisor.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

- Accountancy (p. 379)
  - Accounting, BS (p. 381)
- Economics (p. 384)
  - Business Data Analytics, BBA (p. 388)
  - Business Data Analytics, Minor (p. 390)

- Economics, BA (p. 391)
- Economics, Minor (p. 393)
- Entrepreneurship (p. 394)
  - Entrepreneurship, Certificate (p. 394)
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  - Financial Management, BBA (p. 399)
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  - Risk Management & Insurance, BBA (p. 405)
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  - Business Administration, BBA (p. 410)
  - Business Essentials for Engineering Majors, Minor (p. 413)
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  - Business Management, BBA (p. 423)
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  - Human Resource Management, Minor (p. 426)
  - Human Resources Management, BBA (p. 426)
  - Information Systems Management, Minor (p. 428)
  - Information Systems, BBA (p. 429)
  - Managing People, Certificate (p. 431)
  - Sport Analytics, BS (p. 432)
  - Sport Business, BBA (p. 434)
  - Supply Chain Management, Certificate (p. 436)
  - Supply Chain Management, Minor (p. 437)
  - Supply Chain/Operations Management, BBA (p. 437)
- Marketing (p. 440)
  - Health Care Selling, Certificate (p. 442)
  - Marketing, BBA (p. 442)
  - Marketing, Minor (p. 444)
  - Professional Selling for Engineering Majors, Certificate (p. 445)
  - Professional Selling, Certificate (p. 446)
  - Professional Selling, Minor (p. 446)
  - Sales Management, BBA (p. 447)

## Accountancy

The George W. Daverio School of Accountancy prepares students to become competent and responsible accounting professionals and business leaders. Accounting is essential for planning, decision-making, control and performance evaluation in all types of organizations, including business, government and non-profit entities. Accounting also supports the need for accountability and transparency in every organization, regardless of size, complexity or location. Government and regulatory organizations (e.g. the Internal Revenue Service and

the Securities & Exchange Commission) rely heavily on accountants to support compliance with various laws and regulations. A need for accounting exists whether an organization is small or large, global or domestic, for-profit or not-for-profit, listed or not listed on a stock exchange. Thus, an accounting major offers a wide range of opportunities for future success as a professional.

Students who major in accounting at The University of Akron are generally recruited for professional careers in financial reporting, cost management and control, financial management, financial analysis, internal auditing, external auditing, taxation, information systems audit and control, financial forensics and consultancy. Organizations that recruit accounting majors include public accounting firms, major corporations, small and medium-sized enterprises, government agencies and non-profit organizations. There are exceptional opportunities for professional advancement regardless of career path and the type of institution a graduate may choose.

Professional certification is vital for accounting professionals. We recommend the Certified Public Accountant (CPA) credential for all of our graduates. Ohio law requires 150 semester credit hours of college-level education as a requirement for the CPA certification. We strongly encourage our students to pursue the Accelerated BS/MS Accounting or the Accelerated BS/Master of Taxation program as a path to obtain the 150 credits needed for the CPA certification.

CPA certification is needed for successful careers in public accounting; it is also highly valuable for careers in corporations, government agencies and other organizations. In addition to the CPA, other certifications that students may pursue include Certified Management Accountant (CMA), Certified Internal Auditor (CIA), Certified Information Systems Auditor (CISA) and Certified Fraud Examiner (CFE).

- Accounting, BS (p. 381)

## Accountancy (ACCT)

### ACCT:200 Accounting Principles for Non-business Majors (3 Credits)

Prerequisite: Minimum of 24 credit hours. Introduction to accounting principles including accounting for revenues, expenses, assets, liabilities, equity, accounting standards and financial statements. This course is designed for non-business majors. It does not count toward the required courses for business or accounting majors; College of Business students cannot earn credit for ACCT 200 Accounting Principles for Non-Business Majors. (Formerly 6200:200)

### ACCT:201 Accounting Principles I (3 Credits)

Prerequisite: 24 hours of college credit. Introduction to accounting principles including accounting for revenues, expenses, assets, liabilities, equity, accounting standards and financial statements. (Formerly 6200:201)

### ACCT:202 Accounting Principles II (3 Credits)

Prerequisite: ACCT 201. Information needs of management. Analysis of cash flow and financial statements. Study of product costing systems; standard costs; planning, budgeting, and control systems; overhead cost allocation; cost-volume-profit analysis; relevant costing; and capital budgeting. (Formerly 6200:202)

### ACCT:250 Spreadsheet Modeling & Decision Analysis (3 Credits)

Prerequisite: Completion of 24 credit hours at The University of Akron. In-depth study of spreadsheet applications and databases to support decision-making and problem-solving in business and accounting. (Formerly 6200:250)

### ACCT:290 Specialized Study (1-3 Credits)

Prerequisite: Grade of C or better in ACCT 201. Opportunity to study a specialized area in accounting at the sophomore or junior level (may be repeated with change of subject). (Formerly 6200:290)

### ACCT:301 Cost Management and Control (3 Credits)

Prerequisites: [ECON 200 or ECON 244], grades of not less than "C" in ACCT 201, ACCT 202, and ACCT 250, and admission to a major in the College of Business Administration. Product cost accumulation, cost management strategies, performance evaluation, and application of cost in business decisions. (Formerly 6200:301)

### ACCT:305 Cooperative Education in Accounting (0 Credits)

Prerequisites: ACCT 201, ACCT 202, ACCT 250. Approved work experience in accounting and taxation. Performance evaluation and written report required. (Formerly 6200:305)

### ACCT:316 Financial Applications Development (3 Credits)

Prerequisite: ACCT 201, ISM 315. Analysis, design and development of financial and control applications. Integration of intelligent agents into financial information systems for risk assessment, control, and assurance of businesses processes. (Formerly 6200:316)

### ACCT:320 Accounting Systems and Internal Control (3 Credits)

Prerequisites: A grade of not less than "C" in ACCT 201 and ACCT 250, and admission to a major in the College of Business Administration. Covers analysis design, implementation, governance and evaluation of accounting systems; business process modeling and accounting transaction cycles; and internal control. (Formerly 6200:320)

### ACCT:321 Financial Reporting and Analysis I (3 Credits)

Prerequisite: Admission to a major in the College of Business Administration, a grade of not less than a "C" for accounting majors in ACCT 201 or permission. Financial reporting and analysis of cash, receivables, inventories, property, plant and equipment, intangibles and liabilities. Covers U.S. GAAP, IFRS, SEC reporting, and corporate financial reporting policy. Emphasizes professional accounting research. (Formerly 6200:321)

### ACCT:322 Financial Reporting and Analysis II (3 Credits)

Prerequisite: Admission to a major in the College of Business Administration and a grade of not less than a "C" in ACCT 321 or permission. Financial reporting and analysis of owners' equity, investments, revenue recognition, tax allocations, pensions, leases, accounting changes, cash flows, segments, and interim periods. Covers U.S. GAAP, IFRS, SEC reporting, and corporate financial reporting policy. Emphasizes professional accounting research. (Formerly 6200:322)

### ACCT:330 Contemporary Federal Taxation (3 Credits)

Prerequisites: Admission to a major in the College of Business and ACCT 201 with a grade of C or better. Pre/Corequisite: ACCT 321 or admission to the Financial Planning major. Examines current federal tax practices with an emphasis on individual taxes. (Formerly 6200:330)

### ACCT:405 Experiential Learning in Accounting (3 Credits)

Corequisite: ACCT 305. Approved experiential learning in accounting. Instructor approval required. (Formerly 6200:405)

### ACCT:408 International Financial Reporting & Analysis (3 Credits)

Prerequisites: Admission to a major in the College of Business Administration, a grade of not less than a "C" in ACCT 201 and ACCT 202, and [an international business major (INTB) or ACCT 321]. Covers international accounting standards, analysis of foreign financial statements, international tax issues, accounting for foreign currency, transfer pricing and international auditing standards. (Formerly 6200:408)

**ACCT:410 Taxation for Financial Planning (3 Credits)**

Provides students preparing for careers in financial planning with the necessary knowledge of federal tax law as applied to individuals and businesses. Not to be used as an accounting elective. (Formerly 6200:410)

**ACCT:420 Advanced Financial Reporting and Analysis (3 Credits)**

Prerequisite: Admission to a major in the College of Business Administration and ACCT 322. Examination of accounting theory and financial reporting practices for business combinations, partnerships, foreign operations, nonprofit entities and consolidated statements. Covers U.S. GAAP, IFRS, SEC reporting, and corporate financial reporting policy. Emphasizes professional accounting research. (Formerly 6200:420)

**ACCT:424 Business Law (3 Credits)**

Prerequisite: Completion of 64 credits. Understand business law and concepts dealing with the legal environment of business and their applications, including: business ethics, the American legal system, tort law, contracts, secured transactions, bankruptcy, real property, business entities, environmental law, antitrust. (Formerly 6200:424)

**ACCT:431 Business Entity Taxation (3 Credits)**

Prerequisites: ACCT 330 and admission to a major in the College of Business Administration. Federal income tax law related to partnerships, corporations, trusts and estates; also includes an overview of federal estate and gift tax law. (Formerly 6200:431)

**ACCT:440 Assurance Services and Professional Responsibilities (3 Credits)**

Prerequisites: ACCT 320, ACCT 322, ACCT 330, and admission to a major in the College of Business Administration. Examines assurance services including external auditing and professional responsibilities. Focuses on standards, professional ethics and independence requirements, and procedures used in conducting assurance services. (Formerly 6200:440)

**ACCT:441 Information Systems Audit & Control (3 Credits)**

Prerequisites: Admission to a major in the College of Business Administration, ACCT 440 and ACCT 454 or permission. Learn the fundamental concepts and practices of information systems audit control. Use of contemporary control frameworks, objectives and standards to discuss integrity, control, governance, assurance and effectiveness of financial information systems. (Formerly 6200:441)

**ACCT:450 Advanced Applied Analytics & Decision Analysis (3 Credits)**

Prerequisites: Admission to a major in the College of Business, ACCT 201, and ACCT 250, or equivalents. Study advanced topics in data analytics and decision analysis in the context of accounting and business. Topics may include advanced Excel techniques, PowerBI, and other applied analytics software. (Formerly 6200:450)

**ACCT:454 Information Systems Security (3 Credits)**

Prerequisites: [ACCT 320 or ISM 310] and admission to a major in the College of Business Administration. Focus on information systems risk and security in distributed business environments; develop policies, practices and systems for security of computers and data in business with emphasis on financial information systems. (Formerly 6200:454)

**ACCT:460 Advanced Managerial Accounting (3 Credits)**

Prerequisites: Admission to a major in the College of Business Administration, ACCT 301, ACCT 320, and [SCM 330 or SCM 333]. The use of financial and non-financial information in decision making, performance evaluation of business units, strategy and governance, and management control. (Formerly 6200:460)

**ACCT:470 Governmental Accounting (3 Credits)**

Prerequisites: ACCT 321 or equivalent. Theory and procedures involved in application of fund accounting, budgetary control, appropriations and various accounting systems to governmental units, educational, medical and other non-profit institutions. Covers financial reporting for government and not for profit entities and GASB standards. (Formerly 6200:470)

**ACCT:475 Experiential Learning in Tax (3 Credits)**

Prerequisite: ACCT 330 or equivalent with grade of C- or better or permission of the instructor. Students focus on the application of tax law to specific transactions. Students learn to communicate with low-income and nonresident alien clients and work to achieve the best tax outcome when preparing tax returns. Students learn to use tax software and learn to review their own work prior to submitting to the professor for review. (Formerly 6200:475)

**ACCT:490 Special Topics in Accounting (1-3 Credits)**

Prerequisite: Permission of instructor. Opportunity to study special topics and current issues in accounting. May be repeated with a change of subject. (Formerly 6200:490)

## Accounting, BS

### Bachelor of Science in Accounting (620000BS)

More on the Accounting major (<https://www.uakron.edu/cba/undergraduate/majors/accounting.dot>)

The George W. Daverio School of Accountancy prepares students to become competent and responsible accounting professionals and business leaders. Accounting is essential for planning, decision-making, control and performance evaluation in all types of organizations, including business, government and non-profit entities. An accounting major offers a wide range of opportunities for future success as a professional. Professional certification is vital for accounting professionals. The School of Accountancy's undergraduate accounting degree prepares you to pursue certifications such as certified public accountant (CPA), certified management accountant (CMA), certified internal auditor, and certified information systems auditor.

## Requirements for Admission

- 2.5 average cumulative
- English Composition I and II (ENGL:111 & ENGL:112)
- Speech requirement (COMM:105 or COMM:106)
- College Algebra (MATH:145) or Calculus with Business Applications (MATH:210)
- Principles of Microeconomics (ECON:200) or Principles of Macroeconomics (ECON:201)
- One of the following courses:
  - Accounting Principles I (ACCT:201)
  - Spreadsheet Modeling & Decision Analysis (ACCT:250)
  - Introduction to Entrepreneurship (ENTRE:201)
  - Legal & Social Environment of Business (BLAW:220)
  - Marketing Principles (MKTG:205)

**College of Business Undergraduate Programs**

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042

businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of **The George W. Daverio School of Accountancy** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	4
	College of Business Core	42
	Accounting Required Courses	27
	Accounting Electives	9
	Free Elective	3
	Additional Credits for Graduation *	1
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	

ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus <sup>1</sup>	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>2</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
<b>Total Hours</b>		<b>4</b>

<sup>1</sup> MATH:145 Algebra for Calculus needs to be completed with a C- or better.

<sup>2</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
	or ECON:244 Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I <sup>3</sup>	3
ACCT:202	Accounting Principles II <sup>3</sup>	3
ACCT:250	Spreadsheet Modeling & Decision Analysis <sup>3</sup>	3
ACCT:424	Business Law	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3

INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

<sup>3</sup> Accounting majors must complete with a grade of C or better.

## Accounting Required Courses

Code	Title	Hours
<i>Must be admitted to the Accounting Major to take the courses below:</i>		
ACCT:301	Cost Management and Control	3
ACCT:320	Accounting Systems and Internal Control	3
ACCT:321	Financial Reporting and Analysis I <sup>1</sup>	3
ACCT:322	Financial Reporting and Analysis II	3
ACCT:330	Contemporary Federal Taxation	3
ACCT:420	Advanced Financial Reporting and Analysis	3
ACCT:431	Business Entity Taxation	3
ACCT:440	Assurance Services and Professional Responsibilities	3
ACCT:450	Advanced Applied Analytics & Decision Analysis	3
Total Hours		27

<sup>1</sup> Accounting majors must complete with a grade of C or better.

## Accounting Electives

Code	Title	Hours
<b>Select three of the following:</b>		
ACCT:454	Information Systems Security	3
ACCT:408	International Financial Reporting & Analysis	3
ACCT:441	Information Systems Audit & Control	3
ACCT:460	Advanced Managerial Accounting	3
ACCT:470	Governmental Accounting	3
ACCT:490	Special Topics in Accounting	3
ACCT:475	Experiential Learning in Tax	3
ACCT:405	Experiential Learning in Accounting <sup>1</sup>	3
Total Hours		9

<sup>1</sup> Eligibility for ACCT:405

- Admitted to CBA and minimum 3.0 cumulative GPA
- Completed or enrolled in ACCT:320 and ACCT:321
- Grade of B or better in ACCT:201 and ACCT:202
- Requires ACCT:305 as a corequisite (0 credits)

## Free Elective

Code	Title	Hours
Free Elective <sup>1</sup>		3
Total Hours		3

<sup>1</sup> Students may take any course offered at The University of Akron to fulfill the 120 credit hour requirement.

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business Residency = Last 15 credits earned in The College of Business
- UA Residency = Students must complete their final 30 credits in residence at The University of Akron
- At least 50% of the business core and major course requirements must be earned at The University of Akron
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
COMM:105 Introduction to Public Speaking or COMM:106 or Effective Oral Communication	3
MATH:145 Algebra for Calculus	4
Arts Requirement	3
Natural Science Requirement	3
BUSN:110 College of Business Success Seminar	1-3
Hours	17-19

### Spring Semester

ENGL:112 English Composition II	3
SOCIO:100 Introduction to Sociology	3
BUSN:111 Professional Development Seminar	1
Humanities Requirement	3
Natural Science with Lab Requirement	4
Hours	14

### 2nd Year

#### Fall Semester

ECON:200 Principles of Microeconomics	3
BUSN:230 Business Communication	3
ACCT:201 Accounting Principles I <sup>4</sup>	3
ACCT:250 Spreadsheet Modeling & Decision Analysis <sup>4</sup>	3

MKTG:205 Marketing Principles	3
Hours	15

#### Spring Semester

ECON:201 Principles of Macroeconomics	3
ACCT:202 Accounting Principles II <sup>4</sup>	3
MGMT:301 Management: Principles & Concepts	3
INTB:205 International Business	3
Global Diversity/Humanities Requirement <sup>3</sup>	3
Hours	15

### 3rd Year

#### Fall Semester

ACCT:301 Cost Management and Control	3
ACCT:320 Accounting Systems and Internal Control	3
ACCT:321 Financial Reporting and Analysis I <sup>4</sup>	3

MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
Hours		15
<b>Spring Semester</b>		
ACCT:322	Financial Reporting and Analysis II	3
ACCT:330	Contemporary Federal Taxation	3
FIN:301	Principles of Finance	3
MGMT:305	Business Analytics	3
Hours		12
<b>4th Year</b>		
<b>Fall Semester</b>		
ACCT:420	Advanced Financial Reporting and Analysis	3
ACCT:424	Business Law	3
ACCT:431	Business Entity Taxation	3
ACCT:440	Assurance Services and Professional Responsibilities	3
ACCT:450	Advanced Applied Analytics & Decision Analysis	3
Accounting Elective 1 <sup>5</sup>		3
Hours		18
<b>Spring Semester</b>		
MGMT:490	Strategic Management	3
Integrated and Applied Learning Requirement		3
Accounting Elective 2 <sup>5</sup>		3
Accounting Elective 3 <sup>5</sup>		3
Free Elective <sup>6</sup>		4
Hours		16
Total Hours		122-124

<sup>4</sup> Must have a C or higher in this course.

<sup>5</sup> Students may choose their electives from the following list (9 credits total):

- ACCT:454 Information Systems Security (3 credits)
- ACCT:408 International Financial Reporting & Analysis (3 credits)
- ACCT:441 Information Systems Audit & Control (3 credits)
- ACCT:460 Advanced Managerial Accounting (3 credits)
- ACCT:470 Governmental Accounting (3 credits)
- ACCT:490 Special Topics in Accounting (3 credits)
- ACCT:405 Experiential Learning in Accounting (3 credits)

<sup>6</sup> Students may complete any course at the University of Akron to satisfy this requirement.

## Economics

Economics is the study of choice in a world with scarce resources. Students majoring in economics develop their analytical and problem-solving skills while exploring theories of economic systems and their application to a large number of fields. These fields range from finance and international trade to poverty reduction and environmental problems.

The BA program has core courses in theory and in quantitative and computer methods as well as a number of economics electives. If they wish, students can choose field electives relating to career tracks: business, banking and international economics, public policy or graduate

school. In one of their final field courses, students develop and carry out a senior project that shows their ability to apply what they have learned, both analytically and quantitatively. For potential employers, it provides an important demonstration of what an economics graduate can do.

Graduates are employed in both the private and public sectors in a wide range of careers. For example they can be found as financial analysts, management trainees, human resource managers, city and state economists, bank examiners or health care administrators. An economics degree is an excellent background for entrance into professional programs such as law or the MBA. A joint major is a very useful option for students studying in other fields.

The BBA in Business Data Analytics degree is designed to meet the growing demand for professionals who can gather, sort and interpret large amounts of data to help businesses solve problems and operate more effectively.

This STEM-designated program combines coursework in business, economics and data analytics to provide students the knowledge, skills and hands-on experience needed to develop data-driven solutions in finance, insurance and other industries.

- Business Data Analytics, BBA (p. 388)
- Business Data Analytics, Minor (p. 390)
- Economics, BA (p. 391)
- Economics, Minor (p. 393)

## Economics (ECON)

### ECON:100 Introduction to Economics (3 Credits)

May not be substituted for ECON 200, ECON 201, or ECON 244.

Economics primarily concerned in a broad social science context.

Adequate amount of basic theory introduced. Cannot be used to satisfy major or minor requirements in economics. (Formerly 3250:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

### ECON:200 Principles of Microeconomics (3 Credits)

No credit if ECON 244 already taken. Analysis of behavior of the firm and household, and their impact on resource allocation, output and market price. (Formerly 3250:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

### ECON:201 Principles of Macroeconomics (3 Credits)

Prerequisite: ECON 200. No credit if ECON 244 already taken. Study of the economic factors which affect the price level, national income, employment, economic growth. (Formerly 3250:201)

### ECON:226 Computer Skills for Economic Analysis (3 Credits)

Prerequisites: ECON 100 or ECON 200 or ECON 244. Application of word processing, spreadsheets, presentation packages, SAS, the Internet, library resources, and other computer tools in communicating economic analysis. (Formerly 3250:226)

### ECON:230 Economics of Social Policy Issues (3 Credits)

Prerequisite: ECON 100, or ECON 200 and ECON 201, or ECON 244 or permission of the instructor. Investigation of selected labor and social policy issues. Examples include health care, economic demography, anti-poverty programs, immigration, discrimination, and the impact of unemployment and inflation. (Formerly 3250:230)



**ECON:244 Introduction to Economic Analysis (3 Credits)**

No credit to a student who has completed ECON 200 and ECON 201. Recommended for engineering and mathematical science majors. Intensive introduction to analysis of modern industrial society and formulation of economic policy. Structure of economic theory and its relation to economic reality. (Formerly 3250:244)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**ECON:310 Managerial Economics (3 Credits)**

Prerequisites: ECON 200 or ECON 244. Application of economic analysis to management problems; the organization of enterprises and the allocation of their resources; decision making under uncertainty; strategic behavior. (Formerly 3250:310)

**ECON:325 Applied Econometrics I (3 Credits)**

Prerequisites: [STAT 261 and STAT 262] or STAT 401 or STAT 461 or MGMT 304. Students learn SAS coding and the foundations of data science. Course covers multiple regression estimation and inference analysis and concludes with a research paper. (Formerly 3250:325)

**ECON:326 Applied Econometrics II (3 Credits)**

Prerequisite: ECON 325. Violations of the classical assumptions of the regression model and corrections are explored along with regression analysis of time series data. Culminates with a research paper. (Formerly 3250:326)

**ECON:330 Labor Problems (3 Credits)**

Prerequisites: [ECON 200, or ECON 201, or ECON 244]. Labor economics, principles and public policy. Study of structure of labor market and impact unions have on labor management relations. (Formerly 3250:330)

**ECON:333 Labor Economics (3 Credits)**

Prerequisite: ECON 200 or ECON 244. Theoretical tools used in analysis of problems of labor in any modern economic system. Emphasis given to examination of determinants of demand for and supply of labor. (Formerly 3250:333)

**ECON:350 Women and the Economy (3 Credits)**

Prerequisite: ECON 100 or ECON 200 or ECON 244 or permission of the department. An economic analysis of the role gender plays in decisions (family formation, fertility, childcare, work) and outcomes (the gender wage gap, economic development). (Formerly 3250:350)

**ECON:360 Industrial Organization & Public Policy (3 Credits)**

Prerequisites: ECON 200 or ECON 244. Role of industrial structure and firm conduct in performance of industry and way in which antitrust policy is designed to provide remedies where performance is unsatisfactory. (Formerly 3250:360)

**ECON:380 Money & Banking (3 Credits)**

Prerequisite: ECON 201. Institutions of money, banking and credit, monetary expansion and contraction, public policies affecting this process, development of our money and banking system. (Formerly 3250:380)

**ECON:385 Economics of Natural Resources & the Environment (3 Credits)**

Prerequisites: [ECON 100 or ECON 200 or ECON 244] or permission. Introduction to economic analysis of use of natural resources and economics of environment. Problems of water and air pollution, natural environments, natural resource scarcity, conservation, economic growth. (Formerly 3250:385)

**Gen Ed:** - Complex Issues Facing Society

**ECON:400 Intermediate Macroeconomics (3 Credits)**

Prerequisites: ECON 201 and [MATH 145 or higher math]. Changes in national income, production, employment, price levels, long-range economic growth, short-term fluctuations of economic activity. (Formerly 3250:400)

**ECON:405 Economics of the Public Sector (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244. Considers nature and scope of government activity, rationale for government intervention, problems of public choice, taxation and revenue-raising, cost-benefit analysis, program development and evaluation. (Formerly 3250:405)

**ECON:406 State & Local Public Finance (3 Credits)**

Prerequisite: ECON 410; recommended: ECON 405. Examines economic rationale and problems for provision of goods and services by different governmental units. Considers alternative revenue sources and special topics. (Formerly 3250:406)

**ECON:410 Intermediate Microeconomics (3 Credits)**

Prerequisites: [ECON 200 or ECON 244] and [MATH 145 or higher math]. Advanced analysis of consumer demand, production costs, market structures, determinants of factor income. (Formerly 3250:410)

**ECON:415 Cost-Benefit Analysis (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244. Introduction to tool for public project evaluation. Includes development of analytical framework and methods of determining benefits and costs over time. Stresses application of techniques. (Formerly 3250:415)

**ECON:423 Applied Game Theory (3 Credits)**

Prerequisite: ECON 200. Application of the basic concepts of game theory (analysis of strategic behavior) to relevant economics issues including bargaining, cartels, voting, conflict resolution and non-competitive pricing. (Formerly 3250:423)

**ECON:426 Applied Econometrics (3 Credits)**

Prerequisites: STAT 261, STAT 262, and [ECON 200 and ECON 201] or ECON 244. Application of regression analysis to economic and social sciences data. Discusses typical problems from applied research, including estimation technique, hypothesis testing, and modeling framework. (Formerly 3250:426)

**ECON:427 Economic Forecasting (3 Credits)**

Prerequisites: [(STAT 261 and STAT 262) or STAT 401 or STAT 461 or MGMT 304] and [(ECON 200 and ECON 201) or ECON 244]. Methods for building, identifying, fitting and checking dynamic economic models and use of these models for forecasting. Emphasis on application of available computer software systems. (Formerly 3250:427)

**ECON:430 Labor Market and Social Policy (3 Credits)**

Prerequisite: [ECON 200 and ECON 201] or ECON 244 or permission of instructor. Intensive study of current labor and social policy issues (e.g., discrimination, poverty, migration, education, demographic and labor market changes, impact of international trade on employment). (Formerly 3250:430)

**Gen Ed:** - Complex Issues Facing Society

**ECON:432 Economics & Practice of Collective Bargaining (3 Credits)**

Prerequisite: ECON 200 or ECON 244. Principles and organization of collective bargaining, collective bargaining agreements, issues presented in labor disputes and settlements, union status and security, wage scales, technological change, production standards, etc. (Formerly 3250:432)

**ECON:434 Labor Market Analysis and Evaluation (3 Credits)**

Prerequisites: A minimum of 12 credits of 300- or 400-level economics coursework that includes ECON 325, ECON 326 and ECON 410. Applied labor market research using specialized techniques. Employment, health, education, and other current policy issues and programs analyzed and evaluated. Original research project required. (Formerly 3250:434)

**ECON:436 Health Economics (3 Credits)**

Prerequisites: ECON 100 or ECON 200 or ECON 244 or permission of instructor. Economic analysis of health care. Stresses health policy issues, includes study of demand and supply of medical services and insurance, analysis of health care industries. (Formerly 3250:436)

**ECON:438 Economics of Sports (3 Credits)**

Prerequisites: ECON 100 or ECON 200 or ECON 244 or permission of instructor. Sports franchises as profit maximizing firms; costs and benefits of a franchise to a city; labor markets in professional sports; the economics of college sports. (Formerly 3250:438)

**ECON:440 Special Topics in Economics (3 Credits)**

Prerequisite: [ECON 200 and ECON 201] or ECON 244 or permission of department. Opportunity to study special topics and current issues in economics. (Formerly 3250:440)

**ECON:460 Economics of Developing Countries (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244. Basic problems in economic development. Theories of economic development, issues of political economy and institutions. Topics include poverty, population, migration, employment, finance, international trade and environment. (Formerly 3250:460)

**Gen Ed:** - Global Diversity

**ECON:461 Principles of International Economics (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244, or permission of the Economics department. International trade and foreign exchange, policies of free and controlled trade, international monetary problems. (Formerly 3250:461)

**ECON:475 Development of Economic Thought (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244, or permission of the Economics department. Evolution of theory and method, relation of ideas of economists contemporary to conditions. (Formerly 3250:475)

**ECON:481 Monetary & Banking Policy (3 Credits)**

Prerequisites: ECON 380, ECON 400; or permission of the Economics department. Control over currency and credit, policies of control by central banks and governments, United States Treasury and Federal Reserve System. (Formerly 3250:481)

**ECON:487 Urban Economics: Theory & Policy (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244, or permission of instructor. Analysis of urban issues from an economic perspective. Emphasis on urban growth, land-use patterns, housing, income distribution, poverty and urban fiscal policy. (Formerly 3250:487)

**Gen Ed:** - Domestic Diversity

**ECON:490 Individual Study in Economics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission of instructor. Independent study in economics under supervision and evaluation of selected faculty member. (Formerly 3250:490)

**ECON:491 Workshop: Economics (1-3 Credits)**

(May be repeated) Prerequisite: Permission of the Economics department. Group studies of special topics in economics. May not be used to meet undergraduate or graduate major requirements in economics. May be used for elective credit only. (Formerly 3250:491)

**ECON:495 Internship in Economics (1-3 Credits)**

Prerequisites: ECON 200, ECON 201 and at least three additional courses in economics at the 300- or 400-level. Supervised placement in appropriate position in public or private sector organizations. Reports and written assignments required. (Formerly 3250:495)

**ECON:496 Senior Project in Economics (2 Credits)**

Prerequisites: ECON 400, ECON 410, ECON 426. Corequisites: ECON 405 or ECON 423 or ECON 430 or ECON 460 or ECON 461 or ECON 475 or ECON 481 or ECON 487. Taken concurrently with or following a 400-level field Economics course. Involves independent out-of-class work on a project designed in consultation with the designated 400-level course instructor. (Formerly 3250:496)

**ECON:497 Honors Project in Economics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Senior standing in Honors College. Individual senior honors thesis on a creative project relevant to economics, approved and supervised by faculty member of the department. (Formerly 3250:497)

**ECON:506 State & Local Public Finance (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Examines economic rationale and problems for provision of goods and services by different governmental units. Considers alternative revenue sources and special topics. (Formerly 3250:506)

**ECON:515 Cost-Benefit Analysis (3 Credits)**

Prerequisites: Admission to the master's program in Economics or permission. Introduction to tool for public project evaluation. Includes development of analytical framework and methods of determining benefits and costs over time. Stresses application of techniques. (Formerly 3250:515)

**ECON:523 Applied Game Theory (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Application of the basic concepts of game theory (analysis of strategic behavior) to relevant economics issues including bargaining, cartels, voting, conflict resolution and non-competitive pricing. (Formerly 3250:523)

**ECON:527 Economic Forecasting (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Study of methods for building, identifying, fitting and checking dynamic economic models and use of these models for forecasting. Emphasis is on the application of available computer software systems. (Formerly 3250:527)

**ECON:530 Labor Market and Social Policy (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Intensive study of current labor and social policy issues (e.g., discrimination, poverty, migration, education, demographic and labor market changes, impact of international trade on employment). (Formerly 3250:530)

**ECON:536 Health Economics (3 Credits)**

Prerequisite: Permission of instructor. Economic analysis of health care. Stresses health policy issues, includes study of demand and supply of medical services and insurance, analysis of health care industries. (Formerly 3250:536)

**ECON:538 Economics of Sports (3 Credits)**

Prerequisite: Permission of instructor. Sports franchises as profit maximizing firms; costs and benefits of a franchise to a city; labor markets in professional sports; the economics of college sports. (Formerly 3250:538)

**ECON:540 Special Topics in Economics (3 Credits)**

Prerequisite: Permission. Opportunity to study special topics and current issues in economics. (Formerly 3250:540)

**ECON:560 Economics of Developing Countries (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Basic problems of economic development. Theories of economic development, issues of political economy and institutions. Topics include poverty, population, migration, employment, finance, international trade, environment. (Formerly 3250:560)

**ECON:561 Principles of International Economics (3 Credits)**

Prerequisite: Admission to master's program in Economics or permission. International trade and foreign exchange, policies of free and controlled trade, international monetary problems. (Formerly 3250:561)

**ECON:575 Development of Economic Thought (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Evolution of theory and method, relation of ideas of economists contemporary to conditions. (Formerly 3250:575)

**ECON:581 Monetary & Banking Policy (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Control over currency and credit, policies of control by central banks and governments, United States Treasury and Federal Reserve System. (Formerly 3250:581)

**ECON:587 Urban Economics: Theory & Policy (3 Credits)**

Prerequisite: Admission to the master's program in Economics or permission. Analysis of urban issues from an economic perspective. Emphasis on urban growth, land-use patterns, housing, income distribution, poverty and urban fiscal policy. (Formerly 3250:587)

**ECON:591 Workshop in Economics (1-3 Credits)**

(May be repeated) Group studies of special topics in economics. May not be used to meet undergraduate or graduate major requirements in economics. May be used for elective credit only. (Formerly 3250:591)

**ECON:600 Foundations of Economic Analysis (3 Credits)**

Prerequisite: graduate standing. Determination of national income, employment and price level; aggregate consumption, investment and asset holding; decision problems faced by household and firm. Partial equilibrium and analysis of competition and monopoly and general equilibrium analysis. May not be substituted for 602, 603, 611, or applied toward the 30 graduate credits required for M.A. in economics. (Formerly 3250:600)

**ECON:601 Economic Decision Making for Business (3 Credits)**

Prerequisite: Graduate standing or permission of department. An application of microeconomic analysis to solving business problems and a macroeconomic perspective on national output, unemployment, and inflation. (Formerly 3250:601)

**ECON:602 Macroeconomic Analysis I (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Construction of static macroeconomic models. Analysis predominantly in terms of comparative statistics with only relatively brief mention of dynamic models. (Formerly 3250:602)

**ECON:606 Economics of the Public Sector (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Examination of public sector economies emphasizes public revenues, public expenditures. Develops objectives of taxation, welfare aspects of the public sector, theory of public goods. Considers specific taxes, cost-benefit analysis, expenditures analysis, fiscal federalism. (Formerly 3250:606)

**ECON:610 Framework of Economic Analysis (3 Credits)**

Prerequisite: graduate standing. Development of theoretical and analytical framework for decision making. Discussion of applications of the framework to situations concerning demand, cost, supply, production, price, employment and wage. (Formerly 3250:610)

**ECON:611 Microeconomic Theory I (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Modern theory of consumer behavior and of the firm. Determination of market prices. Optimization models, establishment of criteria for productive, allocative and distributive efficiency. (Formerly 3250:611)

**ECON:615 Industrial Organization (3 Credits)**

Prerequisite: ECON 611 or permission. Examines link between market structure, firm conduct and economic performance. Measurement and effects of monopoly power, industrial concentration and changes. (Formerly 3250:615)

**ECON:617 Economics of Regulation (3 Credits)**

Prerequisite: ECON 615 or permission of instructor. Examines rationale, methods and success of government regulation of public utility, transportation and communications industries. (Formerly 3250:617)

**ECON:620 Application of Mathematical Models to Economics (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Review of selected topics of differential and integral calculus and their application to economic analysis. Theory of optimization in production and consumption; static macroeconomic models. Analysis of growth and stability. (Formerly 3250:620)

**ECON:621 Application of Linear Models in Economic Analysis (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Review of selected topics of linear algebra application to economic theory. Static open and closed input-output tables, dynamic models, consumption technology and theory of demands, linear programming, general equilibrium analysis. (Formerly 3250:621)

**ECON:626 Applied Econometrics I (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Students will learn statistical methods and standard econometric tools by reading and conducting empirical research requiring problem articulation, data assembly and appropriate model specification. (Formerly 3250:626)

**ECON:627 Applied Econometrics II (3 Credits)**

Prerequisite: ECON 626 or equivalent. Students will learn advanced econometric topics, continuing to build on modeling, interpretation, and evaluation skills through economic problems, culminating in an empirical research paper. (Formerly 3250:627)

**ECON:628 Seminar in Research Methods (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. A seminar in the research use of applied mathematical economics or econometrics. Emphasis is on individual development of a theoretical proposition or research statement, its empirical examination and policy implications. (Formerly 3250:628)

**ECON:633 Theory of Wages & Employment (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Analytical approach to integration of economic theory with observed labor market phenomena. Discussion of wage and employment theories, effects of unions, collective bargaining theories and effects of government regulation. (Formerly 3250:633)

**ECON:640 Special Topics in Economics (3 Credits)**

Prerequisite: Admission to the Master's Program in economics or permission of department. Opportunity to study special topics and current issues in economics at an advanced level. Repeatable with permission of instructor. (Formerly 3250:640)

**ECON:664 Seminar on Economic Growth & Development (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Review of main theories of economic growth since age of classical economics. Problems in development of emerging countries. Discussion of aggregative macro-models of capital formation, investment, technology and external trade. (Formerly 3250:664)

**ECON:666 Seminar on Regional Economic Analysis & Development (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Study of a particular national or international regional development. Any one or a combination of following regions may be considered: Middle East, North Africa, areas within Latin America, Southern Europe, Southeast Asia or Eastern Europe. (Formerly 3250:666)

**ECON:670 International Monetary Economics (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. International financial relations. Foreign exchange market and exchange rate adjustments. Balance of payments adjustment policies. International monetary system. (Formerly 3250:670)

**ECON:671 International Trade (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Traditional trade theory. Recent developments in trade theory, policy implications in trade relations among developed and developing economics. (Formerly 3250:671)

**ECON:683 Monetary Economics (3 Credits)**

Prerequisite: Admission to the master's program in economics or permission of the department. Intensive study of important areas of monetary theory. Emphasis on integration of money and value theory among other areas, plus some pressing policy issues. (Formerly 3250:683)

**ECON:695 Graduate Internship in Economics (1-3 Credits)**

Prerequisites: Eighteen credit hours of economics graduate courses. Career application of student's graduate coursework. Supervisor reports and assignments required. May be repeated for a maximum of three credits. (Formerly 3250:695)

**ECON:697 Reading in Advanced Economics (1-4 Credits)**

(A maximum of six credits may be applied toward the master's degree in economics.) Prerequisite: Admission to the master's program in economics or permission of the department. Intensive investigation of selected problem area in advanced economics under supervision of instructor. Since the subject matter is decided upon in each case, the course may be taken repeatedly for credit. (Formerly 3250:697)

**ECON:698 Reading in Advanced Economics (1-4 Credits)**

(A maximum of six credits may be applied toward the master's degree in economics.) Prerequisite: Admission to the master's program in economics or permission of the department. Intensive investigation of selected problem area in advanced economics under supervision of instructor. Since the subject matter is decided upon in each case, the course may be taken repeatedly for credit. (Formerly 3250:698)

**ECON:699 Master's Thesis (3 Credits)**

(May be repeated for a total of six credits) (Formerly 3250:699)

## Business Data Analytics, BBA

### Bachelor of Business Administration in Business Data Analytics (325005BBA)

More on the Business Data Analytics major (<https://www.uakron.edu/data-analytics/>)

The BBA Business Data Analytics major prepares students to answer important questions that arise in decision making in business and the public sector that can be informed by economics and analyzed using data. Core competencies include critical thinking skills, data acquisition skills, data analysis techniques, the application of economic theory to analyze economic data, communication skills, and proficiency in the use of data analytic computer software used in the workplace. Students gain experience in applying economic theory in a wide variety of settings and round out that training with a cognate set of data analytic coursework from the College of Business and elsewhere. After completing the program students can expect job opportunities as an analyst in a wide variety of fields including general business, banking, financial services, federal, state and local government, consulting, and not-for-profit organizations

**College of Business Undergraduate Programs**

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of **The Department of Economics** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Business Data Analytics Requirements	33-34
	Additional Credits for Graduation *	8-6
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:210	Calculus with Business Applications <sup>1</sup> or MATH:221 Analytic Geometry-Calculus I	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:106 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ANTH:251	Human Diversity	
ECON:200	Principles of Microeconomics	
<b>Diversity</b>		
Domestic Diversity		
ECON:487	Urban Economics:Theory & Policy	
Global Diversity		
ECON:460	Economics of Developing Countries	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
ECON:385	Economics of Natural Resources & the Environment	
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Additional Business Requirements

Code	Title	Hours
<b>Required Business Courses</b>		
MATH:210	Calculus with Business Applications or MATH:221 Analytic Geometry-Calculus I	3-4
<b>Recommended Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:200	Personal Leadership Skills	
Total Hours		3-4

<sup>1</sup> Required for some 1st year students

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup> or ECON:244 Introduction to Economic Analysis	3
ECON:325	Applied Econometrics I	3
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Business Data Analytics Requirements

Code	Title	Hours
ECON:326	Applied Econometrics II	3
ECON:400	Intermediate Macroeconomics	3
ECON:410	Intermediate Microeconomics	3
ECON:427	Economic Forecasting	3
ISM:324	Database Management for Information Systems	3
<b>Data Analytic Courses Outside of Economics <sup>1</sup></b>		<b>9-10</b>
<i>Management - complete 9 credits from the list below</i>		
ISM:325	Systems, Analysis, & Design	
ISM:425	Decision Support with Data Warehousing & Data Mining	
SCM:333	Supply Chain and Operations Analysis	
SCM:390	Supply Chain Modeling and Decision Making	
<i>Finance - complete 9 credits from the list below</i>		
FIN:302	Intermediate Corporate Finance	
FIN:343	Investments	
FIN:436	Commercial Bank Management	
FIN:448	Advanced Portfolio Management	
FIN:489	Advanced Financial Analytics	
<i>Marketing - complete 10 credits from the list below</i>		
MKTG:335	Marketing Research	
MKTG:336	Marketing Research Lab	
MKTG:355	Consumer Behavior	
MKTG:375	Marketing & Sales Analytics	
<b>Economic Electives</b>		<b>9</b>
ECON xxx		
Total Hours		33-34

<sup>1</sup> Choose 9 credit hours of coursework in either Management or Finance in the list provided or 10 credit hours in Marketing.

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- CBA residency = Last 15 credits earned in the College of Business
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

### 1st Year

Fall Semester		Hours
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:210	Calculus with Business Applications	3
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
	Social Science Requirement (recommended SOCIO 100 Introduction to Sociology)	3
	Humanities Requirement	3
Hours		16-18

### Spring Semester

BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Arts/Humanities Requirement	3
	Natural Science with Lab Requirement	4
	Arts Requirement	3
	Global Diversity Requirement	3
Hours		17

### 2nd Year

#### Fall Semester

ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
Hours		15

#### Spring Semester

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
Hours		15

### 3rd Year

#### Fall Semester

FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
ISM:324	Database Management for Information Systems	3

SCM:330	Principles of Supply Chain and Operations Management	3
	Complex Issues Requirement	3
Hours		15

#### Spring Semester

ECON:325	Applied Econometrics I	3
	Economics Elective	3
	Economics Elective	3
	Concentration Course	3
	Natural Science Requirement	3
Hours		15

### 4th Year

#### Fall Semester

ECON:325	Applied Econometrics I	3
ECON:410	Intermediate Microeconomics	3
ECON:427	Economic Forecasting	3
	Economics Elective	3
	Concentration Course	3
Hours		15

#### Spring Semester

MGMT:490	Strategic Management	3
ECON:400	Intermediate Macroeconomics	3
	Concentration Course	3
	Free Electives	3
Hours		12
Total Hours		120-122

## Business Data Analytics, Minor Minor in Business Data Analytics (325005M)

The 18-credit Minor in Business Data Analytics is designed for students who want to complement their current major with a skill set that includes data sourcing and acquisition, application of economic theory and statistical techniques to analyze business data, and proficiency in data analytic software packages used in the workplace. A Minor in Business Data Analytics will complement a students' current major and enhance their resume when they enter the job market which has a high demand for professionals who can gather, sort, and interpret data to help businesses solve problems and operate more effectively. A wide variety of data analytic electives from different fields can be selected in consultation with your academic advisor to meet your specific program needs and to differentiate your resume from others upon graduation. This Minor in Business Data Analytics can be paired with majors such as Accounting, Finance, Marketing, Sport Business, Applied Mathematics, Statistics, and various engineering fields.

## Requirements for Admission

Students need to meet with an advisor in the College of Business to declare this minor. No specific requirements needed.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042

businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of the **Department of Economics** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9-12
Electives		9-6
Total Hours		18

## Required Courses

Code	Title	Hours
ECON:200 & ECON:201 or ECON:244	Principles of Microeconomics and Principles of Macroeconomics <sup>1</sup> Introduction to Economic Analysis	3-6
ECON:325	Applied Econometrics I	3
ECON:427	Economic Forecasting	3
Total Hours		9-12

<sup>1</sup> Choose either (ECON:200 & ECON:201) or ECON:244

## Electives

Code	Title	Hours
<b>Complete 6–9 credits of the following electives: <sup>1</sup></b>		<b>9-6</b>
ECON:xxx	Economics courses <sup>2</sup>	
ACCT:450	Advanced Applied Analytics & Decision Analysis	
ACCT:454	Information Systems Security	
FIN:302	Intermediate Corporate Finance	
FIN:343	Investments	
FIN:489	Advanced Financial Analytics	
ISM:325	Systems, Analysis, & Design	
ISM:425	Decision Support with Data Warehousing & Data Mining	
SCM:333	Supply Chain and Operations Analysis	
SCM:390	Supply Chain Modeling and Decision Making	
MKTG:375	Marketing & Sales Analytics	
Total Hours		9-6

<sup>1</sup> Relevant electives outside of the College of Business are accepted as a substitute if approved by the Economics Department.

<sup>2</sup> At least 3 credits beyond the required economics classes have to be at ECON:3xx level and above. All students are encouraged to consult with their academic advisor about the best choice of coursework.

# Economics, BA

## Bachelor of Arts in Economics (325000BA)

More on the Economics major (<https://www.uakron.edu/economics/>)

The BA in economics is a classic liberal arts degree. It trains students in economic theory along with data analytic and critical thinking skills required to investigate real world economic problems. Hands-on application of these tools in the classroom is stressed throughout the curriculum, culminating with the senior “capstone” research project. Graduates can apply these skills in the workplace in a wide variety of settings - in both the private and public sectors - to improve outcomes through better decision making. The degree can also be a stepping stone for graduate studies in a wide variety of areas including further study in economics and other business-related disciplines, law, and public policy.

You will earn a degree from a globally recognized business school where the programs are taught by an accomplished and dedicated faculty and are supported by a network of business executives. You can major in a wide variety of interesting disciplines that are attractive to prospective employers. As a graduate, you will have leadership and collaboration competencies and be a data savvy, globally aware, enterprise thinker.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

businessadvising@uakron.edu

College of Business room 260

The following information has official approval of **The Department of Economics** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student’s score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	6-7
	Economics Requirements	33

Math and Statistics Requirements	7
Additional Economics Requirements	30
Additional Credits for Graduation *	10-9
<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:210	Calculus with Business Applications <sup>1</sup>	
	or MATH:221 Analytic Geometry-Calculus I	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
	or COMM:106 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
<b>Diversity</b>		
Domestic Diversity		
ECON:487	Urban Economics:Theory & Policy	
Global Diversity		
ECON:460	Economics of Developing Countries	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
ECON:385	Economics of Natural Resources & the Environment	
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Additional Business Requirements

Code	Title	Hours
<b>Required Business Courses</b>		
MATH:210	Calculus with Business Applications	3-4
	or MATH:221 Analytic Geometry-Calculus I	

ECON:201	Principles of Macroeconomics	3
<b>Recommended Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:200	Personal Leadership Skills	
<b>Total Hours</b>		<b>6-7</b>

<sup>1</sup> Required for some 1st year students

## Economics Requirements

Code	Title	Hours
ECON:200	Principles of Microeconomics	3
ECON:201	Principles of Macroeconomics	3
ECON:325	Applied Econometrics I	3
ECON:326	Applied Econometrics II	3
ECON:400	Intermediate Macroeconomics	3
ECON:410	Intermediate Microeconomics	3
ECON:434	Labor Market Analysis and Evaluation	1-3
	or ECON:496 Senior Project in Economics	
	or ECON:497 Honors Project in Economics	
ECON:xxx	Economics Electives <sup>1</sup>	12
<b>Total Hours</b>		<b>31-33</b>

<sup>1</sup> Selecting courses from General Education is recommended.

## Math and Statistics Requirements

Code	Title	Hours
MATH:210	Calculus with Business Applications	3-4
	or MATH:215 Concepts of Calculus	
	or MATH:221 Analytic Geometry-Calculus I	
STAT:261	Introductory Statistics I	2
STAT:262	Introductory Statistics II	2-4
	or STAT:461 Applied Statistics	
<b>Total Hours</b>		<b>7-10</b>

## Additional Business Requirements

Code	Title	Hours
<b>Upper Level Electives (see notes below)</b>		<b>16</b>
<b>Foreign Language</b>		<b>14</b>
	101 Beginning Language I	
	102 Beginning Language II	
	201 Intermediate Language I	
	202 Intermediate Language II	
<b>Total Hours</b>		<b>30</b>

## Upper Level Elective Notes

- It is strongly recommended that students use upper level (300/400) electives to pursue a minor or second major. See department advisor for suggestions.
- General electives can be any course not already required by your major and upper-level (300/400) elective can be any course in or outside your major, excluding general education courses and workshops.



- Students who wish to follow a particular career-oriented track in their economic electives can do so from the following: Business Career Track, Banking & International Track, Public Policy Track, & Graduate School Track. *Note that choosing a track is not required.*
  - Graduate School Track relates to professional degrees such as Law, MBA, or Public Policy as well as Economics.
  - Those wishing to become professional economists through graduate work in economics (MA or Ph.D.) are encouraged to take more Calculus (e.g., MATH:221, MATH:222, MATH:223) and further mathematics (e.g., MATH:312).

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- CBA residency = Last 15 credits earned in CBA
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:105	Introduction to Public Speaking	3
or COMM:106	or Effective Oral Communication	
BUS:110		
XXXX:101	Beginning Foreign Language I	4
	Hours	14
<b>Spring Semester</b>		
ECON:200	Principles of Microeconomics	3
ENGL:112	English Composition II	3
MATH:210	Calculus with Business Applications	3
SOCIO:100	Introduction to Sociology (Social Science and Domestic Diversity Requirements)	3
XXXX:102	Beginning Foreign Language II	4
	Hours	16
<b>2nd Year</b>		
<b>Fall Semester</b>		
ECON:201	Principles of Macroeconomics	3
XXXX:201	Intermediate Foreign Language I	3
	Arts Requirement	3
	Humanities Requirement	3
	General Electives	3
	Hours	15
<b>Spring Semester</b>		
ECON:400	Intermediate Macroeconomics	3
XXXX:202	Intermediate Foreign Language II	3
	Economics Elective	3
	Natural Science with Lab Requirement	3
	General Elective	3
	Hours	15

### 3rd Year

#### Fall Semester

ECON:410	Intermediate Microeconomics	3
STAT:261	Introductory Statistics I	2
STAT:262	Introductory Statistics II	2
	Natural Science Requirement	3
	Arts/Humanities Requirement	3
	Upper Level Electives	3
	Hours	16

#### Spring Semester

ECON:325	Applied Econometrics I	3
	Economics Elective	3
	Upper Level Electives	3
	Upper Level Electives	3
	Complex Systems Requirement	3
	Hours	15

### 4th Year

#### Fall Semester

ECON:326	Applied Econometrics II	3
	Economics Elective	3
	Upper Level Electives	1
	Global Diversity Requirement	3
	General Electives	2
	Hours	12
	Total Hours	103

## Economics, Minor Minor in Economics (325000M)

The economics minor is an 18-credit program with sufficient flexibility to complement any major at UA. Students are trained in basic economic theory along with critical thinking skills required to investigate real world economic problems. A wide variety of electives can be selected in consultation with your academic advisor to meet your specific program needs and to differentiate your resume from others to employers upon graduation. The minor in economics is typically paired with business majors such as finance and accounting, applied mathematics, education, and political science.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of the **Department of Economics** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		6-9
Electives		12-9
Total Hours		18

## Required Courses

Code	Title	Hours
<b>Choose either {ECON:200 &amp; ECON:201} or ECON:244:</b>		<b>3-6</b>
ECON:200 & ECON:201 or ECON:244	Principles of Microeconomics and Principles of Macroeconomics Introduction to Economic Analysis	
ECON:410 or ECON:400	Intermediate Microeconomics Intermediate Macroeconomics	3
Total Hours		6-9

## Electives

Code	Title	Hours
<b>Complete 9-12 credits of Economics electives:</b> <sup>1</sup>		<b>12-9</b>
ECON:xxx	Economics courses	
Total Hours		12-9

<sup>1</sup> All students are encouraged to consult with their Academic Advisor about the best choice of coursework.

## Entrepreneurship

- Entrepreneurship, Certificate (p. 394)
- Entrepreneurship, Minor (p. 395)

## Entrepreneurship (ENTRE)

### ENTRE:201 Introduction to Entrepreneurship (3 Credits)

Students are exposed to different skills, mindsets, attitudes, and processes valuable for entrepreneurs and startups. This includes opportunity identification, innovative problem solving, design thinking, and the role of entrepreneurial habits and creativity. Open to all university students. (Formerly 6300:201)

### ENTRE:301 New Venture Creation (3 Credits)

Prerequisite: ENTRE 201 or by permission of instructor. Students work on the development of a business plan based on their chosen career path in the field of entrepreneurship (starting or buying a small business, working for a fast growth business or corporation, new product, family business, or franchising). Open to all university students. (Formerly 6300:301)

### ENTRE:360 Entrepreneurial Field Project (3 Credits)

Prerequisites: ENTRE 201 or permission of the instructor. A practical field experience where students work in a consulting role on an actual entrepreneurial project involving a small business development center, a small business incubator, or an existing small business. (Formerly 6300:360)

### ENTRE:410 Selected Topics in Entrepreneurship (1-3 Credits)

Prerequisites: Must be admitted to a major in a four-year degree granting college, upper-college or graduate standing, and [MGMT 301 or HRM 600] or equivalent. Facilitates comparative international study of entrepreneurship, introduction of entrepreneurship to large organizations, or application of student's entrepreneurial skills. Six hour limit. (Formerly 6500:410)

### ENTRE:450 Business Plan Development (3 Credits)

Prerequisite: ENTRE 301. Students will work independently, with mentoring from the instructor, on an entrepreneurial project. Students will gain hands-on experience in developing a business plan for starting, acquiring, or expanding a business. (Formerly 6300:450)

## Entrepreneurship, Certificate Certificate in Entrepreneurship (630000C)

The 12 credit Certificate in Entrepreneurship program, which is open to all university students, allows students to learn different aspects of entrepreneurship (for example, starting a business, buying a business or franchise, running a family business, corporate entrepreneurship or working for a small business) from faculty who have been successful entrepreneurs. The innovative program allows students to interact with entrepreneurs from the business community through guest speaking engagements, field trips, internships, and small business consulting projects.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

## Summary

Code	Title	Hours
Required Courses		12
Total Hours		12

## Required Courses

Code	Title	Hours
POLIT:333	Social Entrepreneurship	3
or ENTRE:301	New Venture Creation	
or ENTRE:360	Entrepreneurial Field Project	
ENTRE:201	Introduction to Entrepreneurship	3
FPL:200	Foundations of Personal Finance	3
or FIN:300	Introduction to Finance	
or FIN:301	Principles of Finance	
SALES:275	Professional Selling	3
Total Hours		12

Note: Students admitted to the College of Engineering and Polymer Science with 48 credit hours completed are not required to take ACCT:250 as a prerequisite.

## Entrepreneurship, Minor

### Minor in Entrepreneurship (630000M)

By completing the 18-credit Entrepreneurship minor, any student at The University of Akron can acquire entrepreneurial skills to help start or buy a small business, work for a fast-growth business, family business, franchise, or non-profit. This program already has produced several new and successful businesses and has assisted in the growth of a variety of small businesses. Numerous enterprises have been created and built through this nationally recognized program.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
ENTRE:201	Introduction to Entrepreneurship	3
ENTRE:301	New Venture Creation	3
MKTG:205	Marketing Principles	3
FPL:200	Foundations of Personal Finance <sup>1</sup>	3
or FIN:300	Introduction to Finance	

or FIN:301	Principles of Finance	
Total Hours		12

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		
BUSN:495	Internship in Business Administration	6
BUSN:499	Independent Study in Business Administration	
ACCT:301	Cost Management and Control <sup>2</sup>	
ACCT:330	Contemporary Federal Taxation <sup>2</sup>	
ACCT:431	Business Entity Taxation <sup>2</sup>	
ACCT:440	Assurance Services and Professional Responsibilities <sup>2</sup>	
ACCT:460	Advanced Managerial Accounting <sup>2</sup>	
ENTRE:360	Entrepreneurial Field Project	
FIN:343	Investments	
FIN:390	Real Estate Principles: Value Approach	
FIN:403	Real Estate Finance	
FIN:473	Financial Statement Analysis <sup>2</sup>	
RMI:415	Risk Management: Life and Health Insurance <sup>2</sup>	
ISM:310	Business Information Systems	
ISM:201	Introduction to E-Business	
SCM:333	Supply Chain and Operations Analysis	
SCM:334	Service Operations Management	
SCM:435	Quality Management & Control	
HRM:341	Human Resource Management	
MGMT:457	International Management <sup>2</sup>	
SALES:275	Professional Selling	
SALES:475	Business Negotiations <sup>2</sup>	
MKTG:432	Integrated Marketing Communications <sup>2</sup>	
MKTG:440	Brand Management <sup>2</sup>	
INTB:421	Foreign Market Entry <sup>2</sup>	
Total Hours		6

<sup>1</sup> Students admitted to the College of Engineering with 48 credit hours completed are not required to take ACCT:250 as a prerequisite. MATH:145 Algebra for Calculus (or higher level courses MATH:149 Precalculus Mathematics, MATH:215 Concepts of Calculus or MATH:221 Analytic Geometry-Calculus I) is a required pre-requisite for this course. If MATH:145 has not already been taken, please consult with your academic advisor regarding placement into this course. If students do not place into MATH:145, they may be required to take additional courses in the Math sequence in order to take MATH:145. Statistics courses such as STAT:250 Statistics for Everyday Life and STAT:260 Basic Statistics are not appropriate substitutions or prerequisites for MATH:145.

For more information on UA's placement testing services, please call 330.972.6511, email [testing@uakron.edu](mailto:testing@uakron.edu) or visit Schrank Hall North room 153.

<sup>2</sup> Must be admitted to 4 year degree granting major.

## Finance

The primary mission of the Department of Finance is to provide a quality education to students that will prepare them for leadership positions

within the finance profession in business. Students acquire financial knowledge and skills that can be applied in a variety of environments.

UA's four-year finance degree provides students with the opportunity to acquire general business and financial problem-solving skills – with a concentrated study in Financial Management, Financial Planning, or Risk Management and Insurance (RMI).

Graduates in finance develop the skills to: Succeed in financial management of both businesses and not-for-profit organizations; Make effective decisions regarding financial analysis, cash management, raising capital, funding new products, and mergers and acquisitions; Advise people in planning their personal finances to enhance their standard of living during their working years and in retirement; and Identify, analyze, and manage financial and operational risks that are inherent in both personal and business settings.

Financial Management develops students' ability to apply the principle of finance to management of a firm. While the curriculum focuses on the corporation, the skills acquired apply to any organization requiring financial management. Career opportunities include: Chief financial officers; Bank loan officers, credit managers, operations managers and financial analysts; Corporate credit managers; and Participants in all phases of mergers and acquisitions

Financial Planners do what many people don't like doing for themselves: Figure out how to manage their money. By meeting with clients and then helping them determine budgeting plans, investing decisions, insurance needs and other financial to-do's, financial planners get clients on track and help them stay focused on meeting their financial goals. This major qualifies students to sit for the Certified Financial Planner™(CFP®) Exam. Career opportunities include: Financial Planner; Paraplanner; Customer Service Associate; Wealth Management; and Portfolio Manager

RMI prepares students to identify, analyze and manage financial and operational risks that are inherent in both personal and business settings. They study property, liability, health and life insurance, employee benefit programs and government insurance programs. The RMI industry is dynamic and changing rapidly and employment opportunities are high. Careers in this field encompass three broad categories: corporate risk management, corporate insurance professional and insurance sales. Career opportunities include: Loss control specialist/underwriter; Risk analyst/auditor; Claims adjuster/manager; Agency sales/service; and Bank compliance officer.

- Finance, Minor (p. 398)
- Financial Management, BBA (p. 399)
- Financial Planning, BBA (p. 401)
- Financial Planning, Certificate (p. 404)
- Financial Planning, Minor (p. 404)
- Risk Management & Insurance, BBA (p. 405)
- Risk Management & Insurance, Certificate (p. 407)
- Risk Management & Insurance, Minor (p. 408)

## Finance (FIN)

### FIN:300 Introduction to Finance (3 Credits)

Prerequisites: MATH 145 and [ECON 200 or ECON 244]. Studies the sources and uses of funds for business. Students cannot get credit for this class and FIN 301. (For non-College of Business students). (Formerly 6400:300)

### FIN:301 Principles of Finance (3 Credits)

Prerequisites: [ECON 200 or ECON 244], [MATH 145 with a grade of C- or better or higher math], ACCT 201, and completion of one of the following: ACCT 250, admittance to the College of Engineering with 48 credit hours completed, or admittance to the Actuarial Sciences program with 48 credit hours completed. An overview of the financial system and the major decision areas of the financial manager such as capital budgeting, financing, and working capital management. (Formerly 6400:301)

### FIN:302 Intermediate Corporate Finance (3 Credits)

Prerequisite: FIN 301 with a grade of C or better. This second course in corporate finance builds upon FIN 301 to provide students with an analytic foundation for careers in business. (Formerly 6400:302)

### FIN:338 Financial Markets & Institutions (3 Credits)

Prerequisite: FIN 300 or FIN 301 with a grade of C- or better. Studies the flows of funds. Analyzes major financial intermediaries. Money and capital markets reviewed with emphasis on interest rates and their impact upon administration of specific financial intermediaries. (Formerly 6400:338)

### FIN:341 Contemporary Investments (3 Credits)

Prerequisite: FIN 300 or FIN 301. Fundamentals of investing for the individual investor. Students cannot get credit for this class and FIN 343. (For non-College of Business Administration students.) (Formerly 6400:341)

### FIN:343 Investments (3 Credits)

Prerequisites: [FIN 300 or FIN 301 with a grade of C- or better] and [STAT 262, STAT 461, or MGMT 304]. Range of security investment media explored, alternative investment programs considered and role of securities markets through which goals can be achieved studied. (Formerly 6400:343)

### FIN:390 Real Estate Principles: Value Approach (3 Credits)

A study of real estate: the profession, the process, and the product. Emphasis is on real estate as a product and the valuation process. The measurement of value requires tool abilities in accounting, statistics and finance. (Formerly 6400:390)

### FIN:402 Income Property Appraisal (3 Credits)

Prerequisites: at a minimum must have been admitted to a major in a four-year degree granting college, FIN 301, or permission of instructor. Advanced course in real property appraisal and valuation. Techniques and concepts will be covered along with the theory underlying such techniques. (Formerly 6400:402)

### FIN:403 Real Estate Finance (3 Credits)

Prerequisites: at a minimum must have been admitted to a major in a four-year degree granting college, and FIN 301. Advanced course in real estate covering financing of and investment in real property. Included are investment techniques, methods, institutions, instruments, valuation, appraisal and policy issues. (Formerly 6400:403)

### FIN:436 Commercial Bank Management (3 Credits)

Prerequisites: Admission to a major in a four-year degree granting college, ACCT 250, [FIN 300 or FIN 301], and FIN 338. Study of administrative policy determination and decision making within the commercial bank. Analysis of policy making in areas of liquidity, loan and security investment and sources of funds. (Formerly 6400:436)

### FIN:437 International Business Finance (3 Credits)

Prerequisites: Admission to a major in a four-year degree granting college, and [FIN 300 or FIN 301] with a grade of C- or better. Theory and practice of financial wealth maximization in the international business enterprise. (Formerly 6400:437)

**FIN:438 International Banking (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college and [ECON 461 or FIN 437]. Examination of recent trends in the expansion of international banking activities and associated revenue maximizing strategies. (Formerly 6400:438)

**FIN:448 Advanced Portfolio Management (3 Credits)**

Prerequisites: FIN 343 and [ECON 325 or MGMT 305]. Advanced Portfolio Management is a semester long case course. The case is the management of the UA Student-Managed Investment Fund. This course's primary activity will be the active management of the Fund. Current and selected topics relating to investments and financial markets will be discussed as needed in the rapidly changing world economy. The course will give the student practical experience in portfolio construction, management and evaluation by managing real money on a real time basis. (Formerly 6400:448)

**FIN:473 Financial Statement Analysis (3 Credits)**

Prerequisites: Admitted to a major in a four-year degree granting college, [FIN 301 with a grade of C- or better and ACCT 321], or FIN 302. Analysis and interpretation of the financial position and performance of the business firm from the perspective of the credit and financial analyst. Emphasizes mechanics and art of financial analysis. (Formerly 6400:473)

**FIN:485 Financial Strategy (3 Credits)**

Prerequisites: FIN 302 with grade of C or better and admission to a major in a four-year degree granting college. Pre/Corequisite: FIN 473. Case study based course with applications of financial management theories and tools to make decisions in capital budgeting, capital structure, and working capital management. (Formerly 6400:485)

**FIN:489 Advanced Financial Analytics (3 Credits)**

Prerequisites: Admitted to a major in a four-year degree granting college, senior standing, [FIN 302 with a grade of C or better], FIN 338, FIN 343 and [MGMT 305 or ECON 325]. Capstone course with analysis of financial models using advanced spreadsheet techniques. Models from personal finance, corporate finance and investments are incorporated, with applications in financial planning, forecasting, portfolio theory and security valuation, option valuation, capital investment and cost of capital. (Formerly 6400:489)

**FIN:490 Selected Topics in Finance (1-3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, ACCT 250, and FIN 301. Provides opportunity for study of special topics not covered in current finance courses. (Formerly 6400:490)

**FIN:492 Internship in Financial Management (3 Credits)**

Prerequisite: Permission of designated faculty member. On the job experience with public or private sector organizations in the financial services field. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers required. (Formerly 6400:492)

**FIN:495 Research Project in Finance (1-3 Credits)**

Prerequisites: FIN 302, FIN 338, FIN 343 and admission to a major in a 4-year degree granting college. Pre/Corequisite: FPL 411 or RMI 414 or RMI 415 or FPL 417 or RMI 418 or FPL 432 or FIN 436 or FIN 437 or FIN 438 or FIN 448 or RMI 461 or FIN 473 or FIN 485 or FIN 489. Taken concurrently with or following a 400-level field Finance course. Involves independent out-of-class work on a project designed in consultation with the designated 400-level course instructor. (Formerly 6400:495)

**FIN:499 Independent Study: Finance (1-3 Credits)**

Prerequisite: Permission of department head. Provides means for individualized in-depth study of finance problem or problems from which student can derive significant benefit. (Formerly 6400:499)

## Financial Planning (FPL)

**FPL:200 Foundations of Personal Finance (3 Credits)**

Explores application of finance concepts in personal finance with emphasis on the personal financial planning process. (Formerly 6400:200)

**FPL:332 Foundations of Financial Planning (3 Credits)**

Prerequisite: [FIN 300 or FIN 301] with a grade of C or better. Introduction to financial planning, including goal setting, cash management, credit, housing, education planning, and selected professional issues. (Formerly 6400:332)

**FPL:411 Estate and Financial Planning (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, [FIN 300 or FIN 301] with a minimum grade of C- or better, or permission of Finance Department Chair. Pre/Corequisite: ACCT 330. Application of estate planning methodologies and policies to financial planning. (Formerly 6400:411)

**FPL:417 Retirement Planning (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, and [FIN 300 or FIN 301] with a grade of C- or better, or permission of the instructor. An in-depth examination of retirement and estate planning objectives, methods, and strategies including the study of employee benefits plans, public and private pension funds, and lifetime strategies for maximization of estate assets. (Formerly 6400:417)

**FPL:432 Financial Planning Capstone (3 Credits)**

Prerequisites: Must have been admitted to a major in a four-year degree granting college, ACCT 330, [ACCT 410 or FPL 411], FPL 417, [FPL 332 with a grade of C or better], and [FIN 341 or FIN 343]. Pre/Corequisite: RMI 415 and RMI 414. Explores financial planning function, including contact, data acquisition, plan development and implementation; addressing planning techniques and financial planning ethical issues. (Formerly 6400:432)

**FPL:493 Internship in Financial Planning (3 Credits)**

Prerequisite: Permission of designated faculty member. On the job experience with public or private sector organizations in the financial services field. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers required. (Formerly 6400:493)

## Business Law (BLAW)

**BLAW:220 Legal & Social Environment of Business (3 Credits)**

Prerequisite: A minimum academic standing of a Sophomore or greater. Explores the legal and social environment in which modern business must function. The legal system, public and private law, and contemporary social and ethical issues are addressed. (Formerly 6400:220)

**BLAW:321 Business Law I (3 Credits)**

Prerequisite: completion of 64 credits. Discussions designed to develop legal reasoning within substantive areas of contractual obligation, agency relationships, partnerships, corporations, accountant's legal responsibility, federal securities regulation and antitrust law. (Formerly 6400:321)

**BLAW:322 Business Law II (3 Credits)**

Prerequisites: BLAW 321 and completion of 60 credits. Applications of Uniform Commercial Code in sales, commercial paper and secured transactions. Additional discussions include property, wills, estates, trusts, bailments, insurance, suretyship, bankruptcy, and labor law. (Formerly 6400:322)

**BLAW:323 International Business Law (3 Credits)**

The law and international commercial transactions. Among the subjects covered are sovereignty; treaties; agreements; antitrust practices; property rights; international arbitration. (Formerly 6400:323)

**BLAW:424 Legal Concepts of Real Estate (3 Credits)**

Prerequisite: at a minimum must have been admitted to a major in a four-year degree granting college. Study of concepts of law governing the many interests in real estate including acquisition, encumbrance, transfer, rights and obligations of parties, and the various state and federal regulations. The legal concepts of the business of real estate are likewise examined. Emphasis is on a managerial approach utilizing the case method. (Formerly 6400:424)

**Risk Management and Insurance (RMI)****RMI:414 Risk Management: Property and Casualty (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, [FIN 300 or FIN 301] with a grade of C- or better, or permission of instructor. Addresses tools for managing risk, legal concepts of insurance contracts, personal insurance and commercial property and casualty insurance policies as well as other risk issues. (Formerly 6400:414)

**RMI:415 Risk Management: Life and Health Insurance (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, and [FIN 300 or FIN 301] with a grade of C- or better. Concepts of life and health insurance and risk management are addressed. (Formerly 6400:415)

**RMI:418 Insurance Operations (3 Credits)**

Prerequisite: RMI 414 or RMI 415 or permission. This course provides a detailed examination of the composition, financial structure, and operation of the property-casualty insurance industry. (Formerly 6400:418)

**RMI:460 Risk and Insurance Analytics (3 Credits)**

Prerequisite: Admission to a major in a four-year degree granting college. Pre/Corequisites: RMI 414, RMI 415 and RMI 418. The primary objective of this course is to provide an introduction to risk and insurance analytics and the application of analysis techniques to insurance underwriting, fraud detection and risk management. Topics to be covered include:  
1. An overview of the application of analytics to risk management and insurance  
2. Basic Data Modeling Concepts  
3. Traditional Analysis Techniques  
4. Modern Analysis Techniques  
5. Application to Underwriting  
6. Application to Claims  
7. Application to Risk Management (Formerly 6400:460)

**RMI:461 Enterprise Risk Management (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, RMI 414, RMI 415, and RMI 418. Explores risk issues at the firm level with emphasis upon identification and management of risk to enhance firm value. (Formerly 6400:461)

**RMI:494 Internship in Risk Management and Insurance (3 Credits)**

Prerequisite: Permission of designated faculty member. On the job experience with public or private sector organizations in the financial services field. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers required. (Formerly 6400:494)

**Finance, Minor****Minor in Finance (640000M)**

Today's business environment requires increasingly efficient management of a firm's assets and the financial implications of the

different assets. The 18-credit Finance minor will help students use established financial principles to meet organizations' or individuals' financial goals. This minor complements several majors, such as Marketing Management, Information Systems, Sales Management, and others.

**College of Business Undergraduate Programs**

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **Department of Finance** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

**Summary**

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

**Required Courses**

Code	Title	Hours
FIN:302	Intermediate Corporate Finance	3
FIN:338	Financial Markets & Institutions	3
FIN:343	Investments	3
Total Hours		9

**Electives**

Code	Title	Hours
<b>Complete 9 credits of the following:</b>		<b>9</b>
ECON:326	Applied Econometrics II	
ECON:410	Intermediate Microeconomics	
ECON:427	Economic Forecasting	
ACCT:321	Financial Reporting and Analysis I	
ACCT:322	Financial Reporting and Analysis II	
BLAW:323	International Business Law	
RMI:414	Risk Management: Property and Casualty <sup>1</sup>	
RMI:415	Risk Management: Life and Health Insurance <sup>1</sup>	
RMI:461	Enterprise Risk Management <sup>1</sup>	
FPL:417	Retirement Planning <sup>1</sup>	
FIN:436	Commercial Bank Management <sup>1</sup>	
FIN:437	International Business Finance <sup>1</sup>	
FIN:438	International Banking <sup>1</sup>	
FIN:448	Advanced Portfolio Management <sup>1</sup>	
FIN:473	Financial Statement Analysis <sup>1</sup>	
FIN:489	Advanced Financial Analytics <sup>1</sup>	
FIN:490	Selected Topics in Finance <sup>1</sup>	

FIN:499

Independent Study: Finance

Total Hours

9

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Financial Management, BBA

### Bachelor of Business Administration in Financial Management (640004BBA)

More on the Financial Management major (<https://www.uakron.edu/cba/undergraduate/majors/corporate-finance.dot>)

The Financial Management major prepares students to use established financial principles to meet organizations' financial goals. Students learn how to effectively manage a firm's assets by taking required finance and accounting courses, and electives to allow further study in such areas as firm asset management, investment management, and capital budgeting.

#### College of Business Undergraduate Programs

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(330) 972-7042

[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)

College of Business room 260

The following information has official approval of **The Department of Finance** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Financial Management Requirements	33
	Experiential Learning	6
	Additional Credits for Graduation *	2-1
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

#### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:210 Calculus with Business Applications <sup>1</sup>  
or MATH:222 Analytic Geometry-Calculus II

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
or COMM:106 Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111 English Composition I  
ENGL:112 English Composition II

#### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

HIST:200 Empires of the Ancient World

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics  
SOCIO:100 Introduction to Sociology

#### Diversity

Domestic Diversity

SOCIO:100 Introduction to Sociology

Global Diversity

HIST:200 Empires of the Ancient World

#### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours	34
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34

<sup>1</sup> It is strongly recommended that Finance majors take MATH:221

## Additional Business Requirements

Code	Title	Hours
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#### General Education Mathematics Requirement

MATH:210 Calculus with Business Applications 3  
or MATH:221 Analytic Geometry-Calculus I

#### Required Business Courses

BUSN:110 College of Business Success Seminar <sup>1</sup>  
BUSN:111 Professional Development Seminar

Recommended Business Courses	
BUSN:200	Personal Leadership Skills
Total Hours	3

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Financial Management Requirements

Code	Title	Hours
<b>Finance Core <sup>1</sup></b>		
FIN:338	Financial Markets & Institutions	3
FIN:343	Investments	3
<b>Required Courses</b>		
ACCT:321	Financial Reporting and Analysis I <sup>2</sup>	3
ACCT:322	Financial Reporting and Analysis II <sup>2</sup>	3
FIN:302	Intermediate Corporate Finance	3
FIN:448	Advanced Portfolio Management	3
FIN:473	Financial Statement Analysis	3
FIN:485	Financial Strategy <sup>2</sup>	3
FIN:489	Advanced Financial Analytics <sup>2</sup>	3
<b>Finance Electives</b>		
<i>Select two of the following:</i>		6
ECON:326	Applied Econometrics II	
ECON:400	Intermediate Macroeconomics	
ECON:410	Intermediate Microeconomics	
ECON:427	Economic Forecasting	
BUSN:497	Honors Project in Business Administration	
FPL:200	Foundations of Personal Finance	
FPL:417	Retirement Planning	

BLAW:323	International Business Law	
RMI:414	Risk Management: Property and Casualty	
RMI:415	Risk Management: Life and Health Insurance	
FIN:436	Commercial Bank Management	
FIN:437	International Business Finance	
FIN:438	International Banking	
FIN:490	Selected Topics in Finance	
FIN:492	Internship in Financial Management	
FIN:495	Research Project in Finance	
FIN:499	Independent Study: Finance	
Total Hours		33

<sup>1</sup> Financial Management Majors must earn a C- or better in each of these classes and a C average over the Finance Core classes.

<sup>2</sup> Must be admitted to 4 year degree granting Major.

## Experiential Learning

Code	Title	Hours
<b>Finance Students are required to complete six hours of experiential learning</b>		
INTB:220	Global Culture and Business Field Experience	
INTB:406	International Business Study Abroad	
BUSN:110	College of Business Success Seminar	
BUSN:497	Honors Project in Business Administration	
BUSN:301	Cooperative Education	
RMI:461	Enterprise Risk Management	
FPL:432	Financial Planning Capstone	
FIN:448	Advanced Portfolio Management	
FIN:485	Financial Strategy	
FIN:489	Advanced Financial Analytics	
FIN:492	Internship in Financial Management	
MGMT:254	Global Experience	
Total Hours		6

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business residency = Last 15 credits earned in the College of Business
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:210	Calculus with Business Applications	3
COMM:105	Introduction to Public Speaking	3
or COMM:106	or Effective Oral Communication	



SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
	Hours	16-18

**Spring Semester**

BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	Arts Requirement	3
	Natural Science Requirement with Lab	4
	Hours	17

**2nd Year****Fall Semester**

ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
	Hours	15

**Spring Semester**

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
	Hours	15

**3rd Year****Fall Semester**

ACCT:321	Financial Reporting and Analysis I	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
	Complex Issues Requirement	3
	Hours	15

**Spring Semester**

ECON:325	Applied Econometrics I	3
ACCT:322	Financial Reporting and Analysis II	3
FIN:302	Intermediate Corporate Finance	3
FIN:338	Financial Markets & Institutions	3
	Natural Science Requirement	3
	Hours	15

**4th Year****Fall Semester**

FIN:343	Investments	3
FIN:473	Financial Statement Analysis	3
FIN:485	Financial Strategy	3
	Finance Elective	3
	Free Elective	3
	Hours	15

**Spring Semester**

FIN:448	Advanced Portfolio Management	3
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FIN:489	Advanced Financial Analytics	3
MGMT:490	Strategic Management	3
	Finance Elective	3
	Hours	12
	Total Hours	120-122

## Financial Planning, BBA

### Bachelor of Business Administration in Financial Planning (640006BBA)

More on the Financial Planning major (<https://www.uakron.edu/cba/undergraduate/majors/financial-planning.dot>)

Financial Planning majors must complete the 6 hour finance core, 21 hours of required coursework and 6 hours of electives in the program. Successful completion of this program qualifies the student to sit for the Certified Financial Planner Certification Examination (CFP®).

**College of Business Undergraduate Programs**

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

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College of Business room 260

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Financial Planning Requirements	33
	Experiential Learning	6
	Additional Credits for Graduation *	2-1
	Total Hours	120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:210	Calculus with Business Applications <sup>1</sup> or MATH:221 Analytic Geometry-Calculus I	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:106 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
HIST:200	Empires of the Ancient World	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
HIST:200	Empires of the Ancient World	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

<sup>1</sup> Finance students are strongly encouraged to take MATH:221

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:210	Calculus with Business Applications or MATH:221 Analytic Geometry-Calculus I	3
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	

Recommended Business Courses	
BUSN:200	Personal Leadership Skills
Total Hours	
3	

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Financial Planning Requirements

Code	Title	Hours
<b>Finance Core <sup>1</sup></b>		
FIN:338	Financial Markets & Institutions	3
FIN:343	Investments	3
<b>Required Courses</b>		
ACCT:330	Contemporary Federal Taxation <sup>2,3</sup>	3
FPL:332	Foundations of Financial Planning	3
FPL:411	Estate and Financial Planning	3
RMI:414	Risk Management: Property and Casualty <sup>2</sup>	3
RMI:415	Risk Management: Life and Health Insurance <sup>2</sup>	3
FPL:417	Retirement Planning <sup>2</sup>	3
FPL:432	Financial Planning Capstone <sup>2</sup>	3
<b>Electives</b>		
<i>Select six credits of the following:</i>		
		6
PHIL:362	Business Ethics	
BUSN:497	Honors Project in Business Administration	
RMI:418	Insurance Operations	
FIN:302	Intermediate Corporate Finance	
FIN:436	Commercial Bank Management	
FIN:437	International Business Finance	
FIN:438	International Banking	

FIN:448	Advanced Portfolio Management	
RMI:461	Enterprise Risk Management	
FIN:473	Financial Statement Analysis	
FIN:485	Financial Strategy	
FIN:489	Advanced Financial Analytics	
FIN:490	Selected Topics in Finance	
FPL:493	Internship in Financial Planning <sup>4</sup>	
FIN:495	Research Project in Finance	
FIN:499	Independent Study: Finance	
HRM:341	Human Resource Management	
SALES:275	Professional Selling	
Total Hours		33

<sup>1</sup> Financial Planning Majors must earn a C- or better in each of these classes and a minimum average of C over the classes in the finance core.

<sup>2</sup> Must be admitted to 4 year degree granting Major.

<sup>3</sup> ACCT:321, corequisite for ACCT:330, can be waived for Financial Planning majors.

<sup>4</sup> Students are strongly encouraged to complete RMI:493.

## Experiential Learning

Code	Title	Hours
<i>Finance Students are required to complete six hours of experiential learning</i>		6
INTB:220	Global Culture and Business Field Experience	
BUSN:110	College of Business Success Seminar	
BUSN:301	Cooperative Education	
BUSN:497	Honors Project in Business Administration	
FPL:432	Financial Planning Capstone	
FIN:448	Advanced Portfolio Management	
RMI:461	Enterprise Risk Management	
FIN:485	Financial Strategy	
FIN:489	Advanced Financial Analytics	
FPL:493	Internship in Financial Planning	
MGMT:254	Global Experience	
INTB:406	International Business Study Abroad	
Total Hours		6

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business residency = Last 15 credits earned in the College of Business
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

1st Year		Hours
Fall Semester		
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3

MATH:210	Calculus with Business Applications	3
COMM:106	Effective Oral Communication	3
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
	Hours	16-18

### Spring Semester

BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Natural Science Requirement with Lab	4
	Arts Requirement	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	Hours	17

### 2nd Year

#### Fall Semester

ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
	Hours	15

#### Spring Semester

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
	Hours	15

### 3rd Year

#### Fall Semester

ACCT:330	Contemporary Federal Taxation	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
	Complex Issues Requirement	3
	Hours	15

#### Spring Semester

ECON:325	Applied Econometrics I	3
FPL:332	Foundations of Financial Planning	3
FIN:343	Investments	3
FIN:338	Financial Markets & Institutions	3
	Natural Science Requirement	3
	Hours	15

### 4th Year

#### Fall Semester

FPL:411	Estate and Financial Planning	3
RMI:415	Risk Management: Life and Health Insurance	3
FPL:417	Retirement Planning	3
	Finance Elective/Experiential Learning	3

Free Electives	3
Hours	15
<b>Spring Semester</b>	
RMI:414 Risk Management: Property and Casualty	3
FPL:432 Financial Planning Capstone	3
MGMT:490 Strategic Management	3
Finance Elective	3
Hours	12
Total Hours	120-122

## Financial Planning, Certificate Certificate in Financial Planning (640006C)

The 24 credit Certificate in Financial Planning will help students acquire the educational foundation for a career in financial planning and will qualify them to take the Certified Financial Planner Certification Examination.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

businessadvising@uakron.edu

College of Business room 260

The following information has official approval of the **Department of Finance** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

## Summary

Code	Title	Hours
Required Courses		24
Total Hours		24

## Required Courses

Code	Title	Hours
FIN:300 or FIN:301	Introduction to Finance (non-Bus majors) Principles of Finance	3

FIN:341 or FIN:343	Contemporary Investments (non-Bus majors) Investments	3
FPL:332	Foundations of Financial Planning	3
FPL:411	Estate and Financial Planning	3
FPL:417	Retirement Planning <sup>2</sup>	3
FPL:432	Financial Planning Capstone <sup>2</sup>	3
RMI:415	Risk Management: Life and Health Insurance <sup>2</sup>	3
ACCT:330	Contemporary Federal Taxation <sup>2,3</sup>	3
Total Hours		24

<sup>2</sup> Must be admitted to 4 year degree granting major.

<sup>3</sup> ACCT:321 Financial Reporting and Analysis I, the corequisite for ACCT:330, can be waived for Financial Planning Certificates.

## Financial Planning, Minor Minor in Financial Planning (640006M)

Financial planning prepares you to assist individuals to develop short and long term financial goals and to utilize financial strategies and products to reach those goals. The 24 credit minor in Financial Planning helps students start acquiring the educational foundation for a career in financial planning and will qualify them to take the Certified Financial Planner Certification Examination

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

businessadvising@uakron.edu

College of Business room 260

The following information has official approval of the **Department of Finance** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		24
Total Hours		24

## Required Courses

Code	Title	Hours
FIN:300 or FIN:301	Introduction to Finance (non-Bus majors) Principles of Finance	3
FPL:332	Foundations of Financial Planning	3
FIN:341 or FIN:343	Contemporary Investments (non-Bus majors) Investments	3
FPL:411	Estate and Financial Planning	3
RMI:415	Risk Management: Life and Health Insurance <sup>1</sup>	3
FPL:417	Retirement Planning <sup>1</sup>	3
FPL:432	Financial Planning Capstone <sup>1</sup>	3

ACCT:330	Contemporary Federal Taxation <sup>1,2</sup>	3
Total Hours		24

<sup>1</sup> Must be admitted to 4 year degree granting Major.

<sup>2</sup> ACCT:321 Financial Reporting and Analysis I, the corequisite for ACCT:330, can be waived for Financial Planning minors.

## Risk Management & Insurance, BBA Bachelor of Business Administration in Risk Management and Insurance (640003BBA)

More on the Risk Management and Insurance major (<https://www.uakron.edu/cba/undergraduate/majors/risk-management-and-insurance.dot>)

The professional opportunities in risk management and insurance are expanding rapidly. The Management and Insurance degree provides students with the educational foundation for a career in the risk management and insurance fields.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

businessadvising@uakron.edu

College of Business room 260

The following information has official approval of **The Department of Finance** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Risk Management & Insurance Requirements	33
	Experiential Learning	6

Additional Credits for Graduation *	2-1
Total Hours	120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

**Code** **Title** **Hours**

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

### Academic Foundations **12**

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:210 Calculus with Business Applications <sup>1</sup>  
or MATH:221 Analytic Geometry-Calculus I

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
or COMM:106 Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111 English Composition I  
ENGL:112 English Composition II

### Breadth of Knowledge **22**

*Arts/Humanities: 9 credit hours*

HIST:200 Empires of the Ancient World

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics

SOCIO:100 Introduction to Sociology

### Diversity

Domestic Diversity

SOCIO:100 Introduction to Sociology

Global Diversity

HIST:200 Empires of the Ancient World

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours	34
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<sup>1</sup> Finance students are strongly encouraged to take MATH:221

## Additional Business Requirements

**Code** **Title** **Hours**

### General Education Mathematics Requirement

MATH:210 Calculus with Business Applications 3  
or MATH:221 Analytic Geometry-Calculus I

### Required Business Courses

BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
Total Hours		3

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Risk Management & Insurance Requirements

Code	Title	Hours
<b>Finance Core <sup>1</sup></b>		
FIN:338	Financial Markets & Institutions	3
FIN:343	Investments	3
<b>Required Courses</b>		
FIN:302	Intermediate Corporate Finance	3
RMI:414	Risk Management: Property and Casualty <sup>2</sup>	3
RMI:415	Risk Management: Life and Health Insurance <sup>2</sup>	3
RMI:418	Insurance Operations <sup>2</sup>	3
RMI:460	Risk and Insurance Analytics <sup>2</sup>	3
RMI:461	Enterprise Risk Management <sup>2</sup>	3
<b>Finance Electives</b>		
<i>Select nine credits of the following:</i>		9
ECON:326	Applied Econometrics II	
ECON:400	Intermediate Macroeconomics	
ECON:410	Intermediate Microeconomics	
ECON:427	Economic Forecasting	
STAT:471	Introduction to Actuarial Science	

STAT:472	Actuarial Models	
BUSN:497	Honors Project in Business Administration	
ACCT:320	Accounting Systems and Internal Control	
ACCT:454	Information Systems Security	
BLAW:323	International Business Law	
FPL:417	Retirement Planning	
FPL:432	Financial Planning Capstone	
FIN:436	Commercial Bank Management	
FIN:437	International Business Finance	
FIN:438	International Banking	
FIN:448	Advanced Portfolio Management	
FIN:485	Financial Strategy	
FIN:490	Selected Topics in Finance	
FIN:495	Research Project in Finance	
FIN:499	Independent Study: Finance	
RMI:494	Internship in Risk Management and Insurance	
HRM:341	Human Resource Management	
SALES:275	Professional Selling	
Total Hours		33

<sup>1</sup> Finance Majors must earn a C- or better in each of these classes and a minimum average of a C over the classes in the finance core.

<sup>2</sup> Must be admitted to 4 year degree granting Major.

## Experiential Learning

Code	Title	Hours
<b>Finance Students are required to complete six hours of experiential learning</b>		
BUS:110		
BUS:497		
BUS:301		
FPL:432	Financial Planning Capstone	
FIN:448	Advanced Portfolio Management	
FIN:485	Financial Strategy	
FIN:489	Advanced Financial Analytics	
RMI:460	Risk and Insurance Analytics	
RMI:461	Enterprise Risk Management	
RMI:494	Internship in Risk Management and Insurance	
MGMT:254	Global Experience	
INTB:220	Global Culture and Business Field Experience	
INTB:406	International Business Study Abroad	
Total Hours		6

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business residency = Last 15 credits earned in the College of Business
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

### 1st Year

Fall Semester		Hours
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:210	Calculus with Business Applications	3
COMM:105	Introduction to Public Speaking	3
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
	Hours	16-18

### Spring Semester

BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Natural Science Requirement with Lab	4
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	Hours	14

### 2nd Year

#### Fall Semester

ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
	Hours	15

#### Spring Semester

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
	Hours	15

### 3rd Year

#### Fall Semester

FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
	Complex Issues Requirement	3
	Free Electives	3
	Hours	15

#### Spring Semester

ECON:325	Applied Econometrics I	3
FIN:302	Intermediate Corporate Finance	3
FIN:338	Financial Markets & Institutions	3
RMI:414	Risk Management: Property and Casualty	3
	Natural Science Requirement	3
	Hours	15

### 4th Year

#### Fall Semester

FIN:343	Investments	3
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RMI:415	Risk Management: Life and Health Insurance	3
RMI:418	Insurance Operations	3
	Finance Elective	3
	Finance Elective	3
	Hours	15
<b>Spring Semester</b>		
RMI:460	Risk and Insurance Analytics	3
RMI:461	Enterprise Risk Management	3
MGMT:490	Strategic Management	3
	Finance Elective	3
	Hours	12
	Total Hours	117-119

## Risk Management & Insurance, Certificate

### Certificate in Risk Management & Insurance (640005C)

The professional opportunities in risk management and insurance are expanding rapidly. The Risk Management and Insurance certificate helps students acquire the educational foundation for a career in the risk management and insurance fields.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **Department of Finance** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

#### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
RMI:414	Risk Management: Property and Casualty <sup>1</sup>	3
RMI:415	Risk Management: Life and Health Insurance <sup>1</sup>	3
RMI:418	Insurance Operations <sup>1</sup>	3
RMI:461	Enterprise Risk Management <sup>1</sup>	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		<b>6</b>
ECON:380	Money & Banking	
ECON:410	Intermediate Microeconomics	
ECON:427	Economic Forecasting	
STAT:471	Introduction to Actuarial Science	
STAT:472	Actuarial Models	
ACCT:320	Accounting Systems and Internal Control	
ACCT:454	Information Systems Security	
FPL:200	Foundations of Personal Finance	
FIN:300	Introduction to Finance (non-Bus majors) <sup>2</sup>	
or FIN:301	Principles of Finance	
FIN:338	Financial Markets & Institutions	
FIN:343	Investments	
RMI:460	Risk and Insurance Analytics	
HRM:341	Human Resource Management	
SALES:275	Professional Selling	
Total Hours		6

<sup>1</sup> Must be admitted to 4 year degree granting major.

<sup>2</sup> Students admitted to the College of Engineering with 48 credit hours completed are not required to take ACCT:250 Spreadsheet Modeling & Decision Analysis. Allows actuarial science students with 48 credit hours (including courses in progress) to waive the ACCT:250 prerequisite for FIN:301.

## Risk Management & Insurance, Minor Minor in Risk Management & Insurance (640003M)

The professional opportunities in risk management and insurance are expanding rapidly. This program provides an opportunity for students to earn a recognized credential in RMI while completing another major at the University.

## Requirements for Admission

Students must be admitted into a 4-year major program.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of the **Department of Finance** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
RMI:414	Risk Management: Property and Casualty <sup>1</sup>	3
RMI:415	Risk Management: Life and Health Insurance <sup>1</sup>	3
RMI:418	Insurance Operations (Fall only) <sup>1</sup>	3
RMI:461	Enterprise Risk Management (Spring only)	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		<b>6</b>
ECON:380	Money & Banking	
or FIN:338	Financial Markets & Institutions	
ECON:410	Intermediate Microeconomics	
ECON:427	Economic Forecasting	
STAT:471	Introduction to Actuarial Science	
STAT:472	Actuarial Models	
BLAW:323	International Business Law (Spring only)	
FPL:200	Foundations of Personal Finance	
FIN:300	Introduction to Finance <sup>2</sup>	
or FIN:301	Principles of Finance	
FIN:302	Intermediate Corporate Finance	
FIN:341	Contemporary Investments	
or FIN:343	Investments	
FIN:436	Commercial Bank Management <sup>1</sup>	
FIN:437	International Business Finance <sup>1</sup>	
FIN:438	International Banking <sup>1</sup>	
FIN:448	Advanced Portfolio Management	
FIN:473	Financial Statement Analysis <sup>1</sup>	
FIN:489	Advanced Financial Analytics	
FIN:490	Selected Topics in Finance <sup>1</sup>	
FIN:495	Research Project in Finance <sup>1</sup>	



FIN:499	Independent Study: Finance <sup>1</sup>
RMI:460	Risk and Insurance Analytics
HRM:341	Human Resource Management
SALES:275	Professional Selling
Total Hours	6

<sup>1</sup> Must be admitted to 4 year degree granting major.

<sup>2</sup> MATH:145 Algebra for Calculus (or higher level courses MATH:149 Precalculus Mathematics, MATH:215 Concepts of Calculus or MATH:221 Analytic Geometry-Calculus I is a required prerequisite for this course. If MATH:145 has not already been taken, please consult with your academic advisor regarding placement into this course. If students do not place into MATH:145, they may be required to take additional courses in the Math sequence in order to take MATH:145. Statistics courses such as STAT:250 and STAT:260 are not appropriate substitutions or prerequisites for 3450:145. For more information on UA's placement testing services, please call 330.972.6511, email testing@uakron.edu or visit Schrank Hall North room 153.

## General Business

The general Business Administration majors and minors are designed to enrich a student's academic and professional experience.

The Business Administration major is intended to offer a comprehensive approach across the 4 primary areas of business including Accounting, Finance, Management and Marketing. Students who intend to pursue careers in small business management, whether by creating or acquiring a business, or perhaps taking over a family business enterprise, may find the flexibility of this degree program best for them. Other students with more full-time professional experience may also prefer the broader course selection available in this degree program.

The Business Administration major requires students to complete the College of Business core curriculum and 27 credit hours from specified courses. Students in this major must also complete an approved College of Business minor.

The General Business Administration minors are designed for students in a major outside of the College of Business to enrich their academic experience and increase their potential career opportunities. Due to prerequisites, students should allow two years to complete a minor in the College of Business. Some courses include MATH:145 Algebra for Calculus as a prerequisite.

The Undecided Business major is designed for students in the College of Business who are uncertain about which major in the College of Business to declare. Ideally, students should select a major by the start of their Sophomore year of college.

To declare a major or minor, please make an appointment with a College of Business Academic Advisor by calling 330.972.7042 or scheduling an appointment online at <https://www.uakron.edu/business/advising> (<https://www.uakron.edu/business/advising/>).

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
 (330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
 College of Business room 260

- Business Administration for Non-Majors, Minor (p. 410)
- Business Administration, BBA (p. 410)
- Business Essentials for Engineering Majors, Minor (p. 413)
- Business Undecided, BBA (p. 413)

## Business (BUSN)

### BUSN:100 Career Planning in Business Administration (1 Credit)

Examines the academic, professional, and personal skills required for a successful business career. Develops student career plan. Provides exposure to the variety of career opportunities available in public and private sector organizations. (Formerly 6100:100)

### BUSN:101 Business Issues in a Connected World (3 Credits)

An introductory course that examines the 'forces' that are changing how business will be conducted in the 21st century, the 'factors' that determine the success of firms and the impact of both on individuals as consumers and professionals. (Formerly 6100:101)

### BUSN:110 College of Business Success Seminar (1-3 Credits)

This course is designed to help new College of Business students transition from high school or work to the college environment and begin the career development process. (Formerly 6100:110)

### BUSN:111 Professional Development Seminar (1 Credit)

This course introduces students to College of Business (CoB) Professional Development resources and prepares students to be career ready and connected. The course is heavily oriented towards experiential learning. Topics include: Preparing for internships and co-ops; Understanding tools to assist students in the job search process such as Handshake, LinkedIn and Suitable; Exploring career options; Participating in experiential events as it relates to professional development and involvement. (Formerly 6100:111)

### BUSN:200 Personal Leadership Skills (1 Credit)

An introductory course that will expose students to leadership theory and practice in organizations. Students will have an opportunity to self-reflect and investigate leadership styles, ethical issues and influence methods. (Formerly 6100:200)

### BUSN:230 Business Communication (3 Credits)

Prerequisites: ENGL 111, ENGL 112, and [COMM 105 or COMM 106 or COMM 263]. Students will obtain the knowledge and ability use writing and oral communication skills in a professional environment to effectively persuade others and to mobilize action among various organizational stakeholders. (Formerly 6100:230)

### BUSN:301 Cooperative Education (0 Credits)

(May be repeated) For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required. (Formerly 6000:301)

### BUSN:350 Special Topics in Business (1-3 Credits)

Opportunity to study special topics and current issues in business. May be repeated with a change of subject. (Formerly 6100:350)

### BUSN:495 Internship in Business Administration (3 Credits)

Prerequisite: Permission of designated faculty member. On-the-job experience with public or private sector organizations in the student's major field of study. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers are required. (Formerly 6100:495)

### BUSN:497 Honors Project in Business Administration (1-3 Credits)

Prerequisite: Junior standing in Honors Program. Individual directed research relevant to the student's major. Group integrated symposium or an individualized study format available. (Formerly 6100:497)

**BUSN:499 Independent Study in Business Administration (3 Credits)**

Prerequisite: Permission of designated faculty member. Provides a means for individualized study of a problem(s) or issue in the student's major field of study. (Formerly 6100:499)

## Business Administration for Non-Majors, Minor

### Minor in Business Administration for Non-Business Majors (602000M)

The 18-credit Business Administration Minor for Non-Business Majors is a way for a student in any major to gain a practical understanding of business.

To declare the minor, meet with an academic advisor in the College of Business. Please visit the College of Business advising website to schedule an appointment with an advisor.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
ACCT:201	Accounting Principles I	3
or ACCT:200	Accounting Principles for Non-business Majors	
FIN:300	Introduction to Finance <sup>1</sup>	3
or FPL:200	Foundations of Personal Finance	
MGMT:301	Management: Principles & Concepts	3
MKTG:205	Marketing Principles	3
Total Hours		12

<sup>1</sup> MATH:145 Algebra for Calculus (or higher level courses MATH:149 Precalculus Mathematics, MATH:215 Concepts of Calculus or MATH:221 Analytic Geometry-Calculus I) is a required prerequisite for this course. If MATH:145 has not already been taken, please consult with your academic advisor regarding placement into this course. If students do not place into MATH:145, they may be required to take additional courses in the Math sequence in order to take MATH:145. Statistics courses such as STAT:250 Statistics for Everyday Life and STAT:260 Basic Statistics are not appropriate substitutions or a prerequisites for MATH:145.

For more information on UA's placement testing services, please call 330.972.6511, email [testing@uakron.edu](mailto:testing@uakron.edu) or visit Schrank Hall North room 153.

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		<b>6</b>
BLAW:220	Legal & Social Environment of Business	
INTB:205	International Business	
ACCT:xxx	Accountancy Class	
ENTRE:xxx	Entrepreneurship Class	
MGMT:3xx/4xx	Management Upper Level Class	
Total Hours		6

## Business Administration, BBA Bachelor of Business Administration (602000BBA)

More on the Business Administration major (<https://www.uakron.edu/cba/undergraduate/majors/business-administration.dot>)

You will earn a degree from a globally recognized business school where the programs are taught by an accomplished and dedicated faculty and are supported by a network of business executives. You can major in a wide variety of interesting disciplines that are attractive to prospective employers. As a graduate, you will have leadership and collaboration competencies and be a data savvy, globally aware, enterprise thinker. This degree is a Bachelor of Business Administration with a major in Business Administration.

The Business Administration major is intended to offer a comprehensive approach across the 4 primary areas of business including Accounting, Finance, Management, and Marketing. Students who intend to pursue careers in small business management, whether by creating or acquiring a business, or perhaps taking over a family business enterprise, may find the flexibility of this degree program best for them. Other students with more full-time professional experience may also prefer the broader course selection available in this degree program.

The Business Administration major requires students to complete the College of Business core curriculum and 27 credit hours from specified courses. Students in this major must also complete an approved College of Business minor. Please meet with a College of Business advisor for more information about degree requirements and options for minors.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042

businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Business Administration Requirements	45
	<b>Total Hours</b>	<b>124-125</b>

## Recommended General Education Courses

**Code**                      **Title**                                      **Hours**

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

Code	Title	Hours
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
	or COMM:106 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
HIST:200	Empires of the Ancient World	

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics

SOCIO:100 Introduction to Sociology

### Diversity

Domestic Diversity

SOCIO:100 Introduction to Sociology

Global Diversity

HIST:200 Empires of the Ancient World

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar <sup>1</sup>	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
<b>Total Hours</b>		<b>4</b>

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
	or ECON:244 Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
<b>Total Hours</b>		<b>42</b>

- <sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.
- <sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Business Administration Requirements

Code	Title	Hours
<b>Business Systems Course</b>		
<i>Select one of the following:</i> <sup>1</sup>		
ACCT:320	Accounting Systems and Internal Control	
ACCT:454	Information Systems Security	
ISM:310	Business Information Systems	
<b>Business Elective</b>		<b>3</b>
<i>Select one of the following:</i>		
BUSN:495	Internship in Business Administration	
ENTRE:201	Introduction to Entrepreneurship	
SALES:275	Professional Selling	
<b>Accounting Courses</b>		<b>6</b>
<i>Select two 300-400 level Accounting courses</i>		
ACCT:320	Accounting Systems and Internal Control (Recommended)	
ACCT:450	Advanced Applied Analytics & Decision Analysis (Recommended)	
ACCT:454	Information Systems Security (Recommended)	
<b>Finance Courses</b>		<b>6</b>
FPL:200	Foundations of Personal Finance (Required)	
<i>Select one 300-400 level Finance course</i>		
FIN:338	Financial Markets & Institutions (Recommended)	
or FIN:343	Investments	
<b>Management Courses</b>		<b>6</b>
<i>Select two 300-400 level Management courses</i>		
<b>Marketing Courses</b>		<b>6</b>
<i>Select two 300-400 level Marketing courses</i>		
<b>Approved Business Minor</b> <sup>3</sup>		<b>18</b>
Total Hours		45

- <sup>1</sup> This course can be fulfilled through other major requirements (not an additional course).
- <sup>2</sup> Students must be admitted to a College of Business major and meet requirements.
- <sup>3</sup> Approved List of Business Minors: Financial Planning, Finance for Business Majors, Human Resource Management, Information Systems, Supply Chain Management, Consumer Marketing, Professional Selling

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business residency = Last 15 credits earned in the College of Business
- Overall GPA = 2.3
- Major GPA = 2.0

## Recommended Sequence

### 1st Year

Fall Semester		Hours
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
	Speaking Requirement	3
Hours		17-19

### Spring Semester

ENGL:112	English Composition II	3
BUSN:111	Professional Development Seminar	1
	Natural Science with Lab Requirement	4
	Arts Requirement	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
Hours		17

### 2nd Year

Fall Semester		Hours
ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
Hours		15

### Spring Semester

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
Hours		15

### 3rd Year

Fall Semester		Hours
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:3xx/4xx	Upper Level Marketing Course	3
	Complex Issues Requirement	3
Hours		15

### Spring Semester

MGMT:305	Business Analytics	3
FPL:200	Foundations of Personal Finance	3
MGMT:3xx/4xx	Upper Level Management Course	3
	Minor Elective	3
	Natural Science Requirement	3
Hours		15

### 4th Year

Fall Semester		Hours
ACCT:3xx/4xx	Upper Level Accounting Course	3

FIN:3xx/4xx	Upper Level Finance Course	3
MKTG:3xx/4xx	Upper Level Marketing Course	3
	Minor Elective	3
	Business Systems Elective <sup>1</sup>	3
Hours		15

**Spring Semester**

MGMT:490	Strategic Management	3
ACCT:3xx/4xx	Upper Level Accounting Course	3
MGMT:3xx/4xx	Upper Level Management Course	3
	Minor Elective	3
	Internship/Professional Selling/ Entrepreneurship Elective	3
Hours		15
Total Hours		124-126

<sup>1</sup> Business Systems elective can double-dip if students opt to take one of the following:

- ACCT:320 Accounting Systems and Internal Control
- ACCT:454 Information Systems Security
- ISM:310 Business Information Systems

## Business Essentials for Engineering Majors, Minor

### Minor in Business Essentials for Engineering Majors (602002M)

The 18-credit Business Minor for Engineering Majors is designed to help prepare students in the College of Engineering to interact with general managers in their engineering careers, as well as to pursue advanced study in business or engineering management.

Students with an engineering major or engineering technology major are eligible to pursue this minor. To declare the minor, meet with an academic advisor in the College of Business. Please visit the College of Business advising website to schedule an appointment with an advisor.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		15
Electives		3
Total Hours		18

## Required Courses

Code	Title	Hours
ECON:244	Introduction to Economic Analysis	3
ACCT:201	Accounting Principles I	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance <sup>1</sup>	3
MGMT:301 or MKTG:205	Management: Principles & Concepts Marketing Principles	3
Total Hours		15

## Electives

Code	Title	Hours
<b>Select one of the following:</b>		<b>3</b>
GREN:400	Engineering Management and Leadership	
CHEE:110	Project Management and Teamwork I	
	or CHEE:210 Project Management and Teamwork II	
	or CHEE:310 Project Management and Teamwork III	
	or CHEE:410 Project Management and Teamwork IV	
FIN:302	Intermediate Corporate Finance	
SALES:275	Professional Selling	
Total Hours		3

<sup>1</sup> MATH:145 Algebra for Calculus (or higher level courses MATH:149 Precalculus Mathematics, MATH:215 Concepts of Calculus or MATH:221 Analytic Geometry-Calculus I) is a required prerequisite for this course. If MATH:145 has not already been taken, please consult with your academic advisor regarding placement into this course. If students do not place into MATH:145, they may be required to take additional courses in the Math sequence in order to take MATH:145. Statistics courses such as STAT:250 and STAT:260 are not appropriate substitutions or a prerequisites for MATH:145. For more information on UA's placement testing services, please call 330.972.6511, email [testing@uakron.edu](mailto:testing@uakron.edu) or visit Schrank Hall North room 153.

## Business Undecided, BBA

### Business Undecided Major (601000BBA)

You will earn a degree from a globally recognized business school where the programs are taught by an accomplished and dedicated faculty and are supported by a network of business executives. You can major in a wide variety of interesting disciplines that are attractive to prospective employers. As a graduate, you will have leadership and collaboration competencies and be a data savvy, globally aware, enterprise thinker.

The Business Undecided major is designed for students who would like to study business, but are still exploring their options for majors within business. Students should declare their major prior to earning 32 credit hours. Students cannot earn a Business Undecided BBA major. After

earning 60 credit hours, students must speak with an academic advisor in the College of Business prior to being able to enroll in future courses.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

businessadvising@uakron.edu

College of Business room 260

The following information has official approval of **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements

### Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

#### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:145 Algebra for Calculus

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
or COMM:106 Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111 English Composition I

ENGL:112 English Composition II

#### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics

SOCIO:100 Introduction to Sociology

#### Diversity

Domestic Diversity

SOCIO:100 Introduction to Sociology

Global Diversity

#### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours	34
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## Additional Business Requirements

Code	Title	Hours
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#### General Education Mathematics Requirement

MATH:145	Algebra for Calculus	4
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#### Required Business Courses

BUSN:110	College of Business Success Seminar <sup>1</sup>	1
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BUSN:111	Professional Development Seminar	1
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#### Recommended Business Courses

BUSN:200	Personal Leadership Skills	1
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Total Hours	4
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<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
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ECON:201	Principles of Macroeconomics <sup>5</sup>	3
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or ECON:244 Introduction to Economic Analysis

BUSN:230	Business Communication	3
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ACCT:201	Accounting Principles I <sup>4</sup>	3
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ACCT:202	Accounting Principles II <sup>4</sup>	3
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ACCT:250	Spreadsheet Modeling & Decision Analysis <sup>4</sup>	3
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BLAW:220	Legal & Social Environment of Business <sup>2</sup>	3
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FIN:301	Principles of Finance	3
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MGMT:304	Business Statistics	3
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MGMT:301	Management: Principles & Concepts	3
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MGMT:305	Business Analytics <sup>3</sup>	3
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MGMT:490	Strategic Management	3
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SCM:330	Principles of Supply Chain and Operations Management	3
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MKTG:205	Marketing Principles	3
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INTB:205	International Business	3
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Total Hours	42
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<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students majoring in Accountancy are required to take ACCT:424 Business Law instead of BLAW:220 Legal & Social Environment of Business.

<sup>3</sup> Students majoring in Finance are strongly recommended to take ECON:325 Applied Econometrics I instead of MGMT:305 Business Analytics.

<sup>4</sup> Accounting majors must complete with a grade of C or better.

<sup>5</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Business Undecided Courses

Students should declare a major by 32 credit hours

Code	Title	Hours
<b>If you choose:</b>		
	Business Administration (with approved minor)	27
	Accounting	33
	Finance	33
	International Business (with approved minor)	38+
	Management	30-37
	Marketing	31

Once you decide on a major, please meet with a College of Business advisor located in College of Business room 260.

## International Business

Rapid globalization of business creates new challenges and opportunities for businesses, large and small. Our curriculum is designed to prepare students to effectively understand and manage the complexity that globalization brings. Special emphasis is placed on the process of foreign market entry.

Students take the traditional business core classes in accounting, finance, management, marketing and technology, and then go on to take specialized classes in **Foreign Market Entry, International Finance, and International Management.**

Notable highlights include a study abroad program, proficiency in a foreign language and an **18 credit minor specialization.** The areas that can be used for the minor include: in the **College of Business** – Marketing, Economics, Entrepreneurship, Finance, Financial Planning, Human Resource Management, Management Information Systems, Supply Chain/Operations Management and Sales Management; in the **College of Arts & Sciences** – English, Mathematics/Applied Mathematics and General Philosophy.

All International Business majors must also participate in an approved study abroad program which includes the completion of INTB:406 International Business Study Abroad. To satisfy the study abroad program, foreign students must choose a country other than their home country.

To receive a Bachelor in Business Administration degree with a **major in International Business**, each student must successfully complete the

1. General Education program requirements,
  2. College of Business Core Classes
  3. Required courses within the International Business major,
  4. Foreign Language Sequence (11 credits)
  5. Specialization in a minor (18 credits)
  6. Participate in a study abroad program.
- International Business, BBA (p. 416)
  - International Business, Certificate (p. 418)
  - International Business, Minor (p. 419)

## International Business (INTB)

### INTB:205 International Business (3 Credits)

Prerequisites: 24 hours of college credit. A basic course in international business which focuses on global diversity, cultural and economic differences, and related current events. The course emphasizes that students should respect, appreciate, and understand multiple, diverse positions as they enhance their knowledge of global diversity, understanding global relationships, and practice critical thinking on international current events and challenges. (Formerly 6800:205)

### INTB:220 Global Culture and Business Field Experience (1-3 Credits)

Prerequisite: Sophomore or greater standing. Students travel on faculty led trips and study international business practices. Global business practices are examined and aspects of local culture are explored. (Formerly 6100:220)

### INTB:406 International Business Study Abroad (3.00 Credits)

Prerequisite: Must have been admitted to a major in a four-year degree granting college. Approved travel and study to a foreign country per the requirements of the International Business major. (Formerly 6800:406)

### INTB:421 Foreign Market Entry (3 Credits)

Prerequisites: Must have been admitted to a major in a four-year degree granting college and INTB 205. A study of the business processes and procedures associated with successful foreign market entry. International Business practices around the world related to successful and unsuccessful entry are compared and contrasted. Letters of Credit, Import/Export Documentation and Global Shipping Standards are examined. (Formerly 6800:421)

### INTB:422 Foreign Market Distance Analysis (3 Credits)

Prerequisites: Must have been admitted to a major in a four-year degree granting college, INTB 205, and INTB 406. The cultural, administrative, geographic, and economic difference between home and host countries can dramatically impact the success of foreign market entry by the home country. Students will learn how to successfully identify and respond to these differences. (Formerly 6800:422)

### INTB:492 Internship in International Business (3 Credits)

Prerequisite: Permission of department chair. On-the-job experience with public or private sector organizations in the field of marketing. On-the-job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by a weekly diary and a term paper, which are supervised and evaluated by the department chair. (Formerly 6800:492)

### INTB:496 Special Topics: International Business (1-3 Credits)

(May be repeated for a total of three credits) Prerequisite: Permission of instructor. Provides the opportunity to study special topics and current issues in international business. Note: Other international business courses are offered under departmental course numbers. They are ACCT 408, BLAW 323, FIN 481, MGMT 457, and MGMT 459 (Formerly 6800:496)

**INTB:498 International Business Experiential Learning (3 Credits)**

Prerequisites: Must have been admitted to a major in a four year degree granting college and junior or greater standing. Serving as an alternative to a study abroad experience, this course seeks to have students emerge as civically-engaged, adaptable global leaders, ready to join in the enterprise of building strong and sustainable organizations by promoting hands-on, problem-centered learning. Students will apply critical reasoning skills to contemporary issues facing firms and organizations in the dynamic global environment. Students will be required to consider the many factors impacting business today, including economic, governmental, competitive, legal and cultural forces, as they develop strategic responses to the challenges facing a given firm or organization. (Formerly 6800:498)

## International Business, BBA

### Bachelor of Business Administration in International Business (680002BBA)

More on the International Business major (<https://www.uakron.edu/cba/undergraduate/majors/international-business.dot>)

To prepare students for the international global marketplace, students will take the general business core classes, and also classes in international business across a wide range of disciplines including international economics, management, finance, and business law. Students have an international business capstone requirement, in which students are required to either travel abroad, have an international business internship or a take an international experiential learning course. In addition students will select one of three tracks for their area of concentration: Supply Chain Operations, Marketing or Financial Management which will lead students to obtain a required second major in one of these areas which are highly valued in global business.

As a graduate with a major in International Business with Supply Chain, Marketing, or Finance as your second major, you will have a multidisciplinary and diverse perspective to be a data savvy, globally aware, and enterprise strategic thinker. You will also be supported by accomplished and dedicated faculty, and a strong network of global business executives.

### Admission Requirements

- 2.5 average cumulative
- ENGL:111 English Composition I & ENGL:112 English Composition II
- Speech requirement (COMM:105 Introduction to Public Speaking or COMM:105 Introduction to Public Speaking)
- MATH:145 Algebra for Calculus or MATH:210 Calculus with Business Applications
- ECON:200 Principles of Microeconomics or ECON:201 Principles of Macroeconomics
- One of the following courses:
  - ACCT:201 Accounting Principles I
  - ACCT:250 Spreadsheet Modeling & Decision Analysis
  - ENTRE:201 Introduction to Entrepreneurship
  - BLAW:220 Legal & Social Environment of Business
  - MKTG:205 Marketing Principles

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)

College of Business room 260

The following information has official approval of **The Department of Marketing** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	4
	College of Business Core	42
	International Business Requirements	45-57
	Total Hours	125-137

### Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
	or COMM:106 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		



*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics

SOCIO:100 Introduction to Sociology

**Diversity**

Domestic Diversity

SOCIO:100 Introduction to Sociology

Global Diversity

**Integrated and Applied Learning***Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

**Additional Business Requirements**

Code Title Hours

**General Education Mathematics Requirement**

MATH:145 Algebra for Calculus 4

**Required Business Courses**BUSN:110 College of Business Success Seminar <sup>1</sup>

BUSN:111 Professional Development Seminar

**Recommended Business Courses**

BUSN:200 Personal Leadership Skills

Total Hours 4

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.**College of Business Core <sup>1</sup>**

Code Title Hours

ECON:201 Principles of Macroeconomics <sup>2</sup> 3

or ECON:244 Introduction to Economic Analysis

BUSN:230 Business Communication 3

ACCT:201 Accounting Principles I 3

ACCT:202 Accounting Principles II 3

ACCT:250 Spreadsheet Modeling &amp; Decision Analysis 3

BLAW:220 Legal &amp; Social Environment of Business 3

FIN:301 Principles of Finance 3

MGMT:304 Business Statistics 3

MGMT:301 Management: Principles &amp; Concepts 3

MGMT:305 Business Analytics 3

MGMT:490 Strategic Management 3

SCM:330 Principles of Supply Chain and Operations Management 3

MKTG:205 Marketing Principles 3

INTB:205 International Business 3

Total Hours 42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.**International Business Requirements**

Code Title Hours

**International Business Core**INTB:421 Foreign Market Entry <sup>1</sup> 3

BLAW:323 International Business Law 3

ECON:461 Principles of International Economics 3

ACCT:408 International Financial Reporting & Analysis <sup>1</sup> 3FIN:437 International Business Finance <sup>1</sup> 3MGMT:457 International Management <sup>1</sup> 3**International Capstone 3***Select one of the following*

BUSN:497 Honors Project in Business Administration

INTB:406 International Business Study Abroad <sup>2</sup>INTB:492 Internship in International Business <sup>2</sup>INTB:498 International Business Experiential Learning <sup>2</sup>**2nd Major in one of the following: Supply Chain Operations Management; Marketing, Financial Management, Accounting, Human Resource Management, or Business Data Analytics <sup>3</sup> 24-36**

Total Hours 45-57

<sup>1</sup> Must be admitted to 4 year degree granting major.<sup>2</sup> Requires prior approval from Global Business Chair<sup>3</sup> Students are required to select a second major, preferably in one of the following three areas:

1. Supply Chain Operations Management (27 credits)
2. Marketing (34 credits)
3. Financial Management (30 - 33 credits)

Alternatively, a second major in the following areas is also acceptable:

1. Human Resource Management (24 - 30 credits)
2. Accounting (36 credits)
3. Business Data Analytics (33 - 34 credits)

**Graduation Requirements – Review DPR for Status**

- 120 Credit Hours
- CBA residency = Last 15 credits earned in CBA
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

**Recommended Sequence****1st Year**

Fall Semester Hours

ENGL:111 English Composition I 3

MATH:210 Calculus with Business Applications 3

ACCT:250 Spreadsheet Modeling &amp; Decision Analysis 3

COMM:105 Introduction to Public Speaking 3

or COMM:106 or Effective Oral Communication

Social Science Requirement (recommended SOCIO:100) 3

Hours

15

<b>Spring Semester</b>		
ECON:200	Principles of Microeconomics	3
ENGL:112	English Composition II	3
	Arts Requirement	3
	Humanities Requirement	3
	Natural Science Requirement with Lab	4
	Hours	16
<b>2nd Year</b>		
<b>Fall Semester</b>		
ECON:201	Principles of Macroeconomics	3
ACCT:201	Accounting Principles I	3
MGMT:304	Business Statistics	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
	Hours	15
<b>Spring Semester</b>		
ACCT:202	Accounting Principles II	3
FIN:301	Principles of Finance	3
MGMT:305	Business Analytics	3
SCM:330	Principles of Supply Chain and Operations Management	3
	Arts/Humanities Requirement	3
	Hours	15
<b>3rd Year</b>		
<b>Fall Semester</b>		
ECON:461	Principles of International Economics	3
MGMT:301	Management: Principles & Concepts	3
INTB:421	Foreign Market Entry	3
	Second Major Course	3
	Second Major Course	3
	Hours	15
<b>Spring Semester</b>		
BLAW:220	Legal & Social Environment of Business	3
FIN:437	International Business Finance	3
MGMT:457	International Management	3
	Second Major Course	3
	Complex Issues Requirement	3
	Hours	15
<b>4th Year</b>		
<b>Fall Semester</b>		
BLAW:323	International Business Law	3
	International Capstone Requirement	3
	Second Major Course	3
	Second Major Course	3
	Second Major Course	3
	Hours	15
<b>Spring Semester</b>		
MGMT:490	Strategic Management	3
	Global Diversity Requirement	3
	Second Major Course	3
	Second Major Course	3

Second Major Course	3
Hours	15
Total Hours	121

\*Students should work with their Academic Advisor to determine how they can use their General Education Tag courses to reduce the amount of overall credits

\*Students in Marketing will need 7 additional credits; Students in Financial Management will need 3 additional credits.

## International Business, Certificate Certificate in International Business (680000C)

The wave of rapid change in the physical, political, economic, and cultural landscapes around the world is creating new opportunities and challenges for businesses and individuals that need to be managed effectively. The interdisciplinary 12-credit International Business (IB) Certificate is for students who are not enrolled in the College of Business. It provides students with an opportunity to better understand the global business environment, and teaches students how to respond to the forces that shape this environment.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of the **Department of Marketing** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

## Summary

Code	Title	Hours
	Required Courses	9
	Electives	3
	Total Hours	12

## Required Courses

Code	Title	Hours
INTB:205	International Business	3
INTB:421	Foreign Market Entry (Fall only) <sup>1</sup>	3
BLAW:323	International Business Law (Spring only)	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select one of the following:</b>		<b>3</b>
EMHS:360	Introduction to Terrorism	
PHIL:329	Philosophy of International Law	
POLIT:150	World Politics & Government	
POLIT:300	Comparative Politics	
COMM:325	Intercultural Communication <sup>1</sup>	
Total Hours		3

<sup>1</sup> Must be admitted to 4 year degree granting major.

## International Business, Minor Minor in International Business (68000M)

The rapid globalization of business is creating dynamic changes in the business environment. As a result, significant opportunities for graduates with academic backgrounds in international business are available.

The 18-19 credit International Business minor provides students with a basic understanding of international business and its environments and is a useful complement for many majors. The University of Akron has exchange agreements with leading universities throughout the world, enabling students to study and gain valuable business experience in such locales as the United Kingdom, France, Germany, Denmark, Japan and the Netherlands.

Globalization and international business have become the norm in today's world. Many businesses are involved in international business either directly or indirectly. Globalization has created significant opportunities for graduates with an academic background in international business. This minor provides students with a basic understanding of international business and its environments and is a useful complement for many majors.

This minor is best suited for College of Business majors, but may be taken by all students. Non-Business majors are encouraged to consider the International Business Certificate. The rapid globalization of business is creating dynamic changes in the business environment. This unprecedented wave of change creates new opportunities and challenges that must be managed effectively. The IB minor is designed to prepare graduates to manage the change and complexity that globalization brings with it.

Special emphasis is placed on the process of foreign market entry.

### College of Business Undergraduate Programs

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College of Business room 260

The following information has official approval of the **Department of Marketing** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
BLAW:323	International Business Law (Spring only)	3
INTB:205	International Business	3
INTB:421	Foreign Market Entry (Fall only) <sup>1</sup>	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select three of the following:</b>		<b>9</b>
ECON:461	Principles of International Economics <sup>1</sup>	
POLIT:300	Comparative Politics	
POLIT:310	International Politics & Institutions	
ACCT:408	International Financial Reporting & Analysis (Spring only) <sup>1</sup>	
FIN:437	International Business Finance <sup>1</sup>	
FIN:438	International Banking <sup>1</sup>	
SCM:433	Supply Chain Logistics Planning (Spring only) <sup>1</sup>	
MGMT:457	International Management <sup>1</sup>	
MGMT:459	Selected Topics: International Management <sup>1</sup>	
MGMT:460	Special Topics in Management <sup>1</sup>	
INTB:422	Foreign Market Distance Analysis (Fall only) <sup>1</sup>	
INTB:496	Special Topics: International Business <sup>1</sup>	
Total Hours		9

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Management

The Department of Management provides opportunities for students to prepare for three different majors: Human Resources Management, Supply Chain/Operations Management and Information Systems Management. Each major provides a solid foundation of general management skills needed by organizations today. Businesses, as well as non-profit institutions, face complex environments with multiple challenges and opportunities. The Department of Management faculty members interact regularly with business leaders to ensure that our

students are prepared with the cutting-edge knowledge and skills required to obtain the best jobs.

The Human Resource Management major prepares students for jobs as Human Resource Management (HRM) professionals, as well as general managers. It is generally the people with talent that make one organization more successful than another. HRM professionals are the keys to the acquisition and use of talent in organizations to support strategy. HRM professionals oversee the recruitment, hiring, training and compensation of employees. They also design systems for performance management, guide labor relations, ensure legal compliance and monitor employee safety.

The Supply Chain/Operations Management major is central for the success of almost every business. Supply Chain/Operations deals with getting the right product, to the right place, at the right time, in the right condition, at the right price. It is a growing interdisciplinary field that involves building relationships with organizations around the world. Professionals in this area must understand procurement and sourcing, inventory control, logistics and transportation, import and export management, manufacturing and service operations, and negotiation and customer satisfaction skills. This major prepares students to be professionals in the broad supply chain field.

The Information Systems Management major prepares students to be business professionals that direct the technology-related activities of organizations. Graduates understand how to design and access computer systems in order to ensure good business decisions. Information Systems (IS) professionals work with executives to define, plan and achieve the technical goals of the company. IS professionals understand databases, networks, data analytics and system analysis. Students graduate from this program with the combination of technical and business expertise that organizations need for success.

A graduate with a degree in a management discipline will have many employment opportunities with firms in staff, supervisory and other professional positions. In addition, the graduate has the fundamental preparations to undertake advanced studies leading to a graduate degree.

- Business Management, BBA (p. 423)
- Esports Business, Certificate (p. 425)
- Human Resource Management, Minor (p. 426)
- Human Resources Management, BBA (p. 426)
- Information Systems Management, Minor (p. 428)
- Information Systems, BBA (p. 429)
- Managing People, Certificate (p. 431)
- Sport Analytics, BS (p. 432)
- Sport Business, BBA (p. 434)
- Supply Chain Management, Certificate (p. 436)
- Supply Chain Management, Minor (p. 437)
- Supply Chain/Operations Management, BBA (p. 437)

## Management (MGMT)

### MGMT:254 Global Experience (1-3 Credits)

Prerequisite: 28 credit hours completed. Provides an opportunity for students to learn from faculty expertise in the context of a foreign country. International management practices are examined and aspects of local culture are studied. (Formerly 6500:254)

### MGMT:301 Management: Principles & Concepts (3 Credits)

Prerequisites: 32 completed credit hours. An interdisciplinary approach to the study of the basic principles of general management theory and practice. (Formerly 6500:301)

### MGMT:302 Organizational Behavior & Leadership Skills (3 Credits)

Prerequisite: 48 completed credit hours. Investigation of applications of behavioral and social sciences as they relate to individual, group behavior in organizations. (Formerly 6500:302)

### MGMT:304 Business Statistics (3 Credits)

Prerequisites: [MATH 145 with a grade of C- or better or higher math] and ACCT 250. Introduces statistical methods to support quantitative decision analysis for solving business problems. Includes probability, sampling, estimation, hypothesis testing, analysis of variance. Utilizes case studies. (Formerly 6500:304)

### MGMT:305 Business Analytics (3 Credits)

Prerequisites: MGMT 304. Studies core statistical techniques; data retrieval, analysis and mining; and decision modeling to effectively persuade in the project-oriented world of data-driven decisions. (Formerly 6500:305)

### MGMT:370 Financial Issues in Sport (3 Credits)

Prerequisites: Must be admitted to a major in a four-year degree granting college, ACCT 201, ACCT 250, and FIN 301. This course will address ownership structures, venue financing, franchise valuation, risk, taxes, sport investment, labor and media contracts and budgeting. Students will also explore the body of knowledge associated with pursuing a career in sport business. (Formerly 6500:370)

### MGMT:380 Global Esports Business Management (3 Credits)

This class will prepare students with the knowledge base necessary to understand up-to-date information about the global esports ecosystem and discuss career opportunities available for students. Also this course will seek to explore, acquire, and discuss knowledge within the theoretical and applied management strategies in esports ecosystem. Students will also be required to complete various tasks, both in and out of the classroom, that are relevant esports. (Formerly 6500:380)

### MGMT:400 Esports Event Management (3 Credits)

Prerequisite: Admission to a major in a four-year degree granting college. This course is designed to provide the students with solid fundamental information on what students need to do to be a successful event manager in the esports industry. Students will discuss various ways that organizations plan, develop, and manage various esports events. Students will have opportunities to volunteer for University of Akron esports program throughout the semester. (Formerly 6500:400)

### MGMT:404 Current Topics in Sport Business (3 Credits)

Prerequisites: Junior or greater standing and must be admitted to a major in a four-year degree granting college. This course will focus on the evolution of sport in the 21st century. Topics may include the professionalization of college athletics, technological advances in sport, athlete branding, the use of advanced metrics in performance projections, customer/ fan engagement, the role of social media in sport consumption, diversity, and sport and society. (Formerly 6500:404)

### MGMT:422 Applied Sales in Sport (3 Credits)

Prerequisites: Must be admitted to a major in a four-year degree granting college, BUSN 230, and MKTG 205. This course will provide students with a variety of learning experiences related to the theory and examination of sales in sport. Specifically, this course empowers students to gain real-world experience in the business-to-consumer sales process while working on a real-world project with a sport organization partner. (Formerly 6500:422)

**MGMT:457 International Management (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college; upper level standing and MGMT 301 or equivalent. Management practices and techniques of international business organizations. Focus on structure and processes of resource allocation, design and technology, and the impact of culture. (Formerly 6500:457)

**MGMT:459 Selected Topics: International Management (1-3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level standing, MGMT 301 or equivalent, and MGMT 457. Selected topics in international management focus on historical or contemporary managerial, production and organizational issues. Includes international simulation game. Six hour limit. (Formerly 6500:459)

**MGMT:460 Special Topics in Management (3 Credits)**

Prerequisite: Must be admitted to a major in a 4-year degree granting college. Exploration of advanced topics of interest both to the student and professor. Many special applications, case studies, outside speakers, projects in conjunction with local industries. (Formerly 6500:460)

**MGMT:470 Sport Business Consulting Project (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college. Students develop skills in navigating and managing team dynamics while addressing complex issues specific to a unique sport organization. (Formerly 6500:470)

**MGMT:477 Management Simulation (1 Credit)**

Prerequisite: MGMT 301. Simulation of management practices through computerized game or experiential exercise. (Formerly 6500:477)

**MGMT:490 Strategic Management (3 Credits)**

Prerequisites: Admission to a major in the CBA, 97 credits in which 15 crd hrs, or half of major credits must be completed, BUSN 230, ACCT 201, ACCT 202, ACCT 250, [BLAW 220 or BLAW 321 or ACCT 424], FIN 301, MGMT 301, MGMT 304, [MGMT 305 or ECON 325], SCM 330, MKTG 205, and INTB 205. Capstone course. Integrates the core business disciplines (accounting, economics, finance, management, marketing) through the use of case analysis. Objective and strategy formulation from an administrative viewpoint and international dimension. Emphasis on oral and written communications. (Formerly 6500:490)

**MGMT:491 Workshop in Management (1-3 Credits)**

Prerequisite: Must be admitted to a major in a 4-year degree granting college. (May be repeated with permission of instructor or department) Group studies of special topics in management. May not be used to meet undergraduate major requirements in management. May be used for elective credits only. (Formerly 6500:491)

## Information Systems Management (ISM)

**ISM:201 Introduction to E-Business (3 Credits)**

Prerequisite: 24 credits. Provides a broad overview of e-business strategies, products and technologies. Discusses transformation of marketing, production and other business functions; and related legal, political, ethical and cultural issues. (Formerly 6100:201)

**ISM:310 Business Information Systems (3 Credits)**

Prerequisites: Completion of 48 credit hours and [ACCT 250 or admission to the Computer Science major]. Provides a technical and organizational foundation for understanding the use and importance of information systems and information technology in today's business environment. (Formerly 6500:310)

**ISM:315 Applications Development for Business Processes (3 Credits)**

Prerequisites: ACCT 250 and 48 completed hours. Analysis and automation of business operations and processes. Development of applications based on a simulated enterprise-wide database. (Formerly 6500:315)

**ISM:324 Database Management for Information Systems (3 Credits)**

Prerequisites: ACCT 250 and 48 completed hours. An introduction to database design and management, including data modeling, relational theory, Structured Query Language, and database applications, development, using database management systems. (Formerly 6500:324)

**ISM:325 Systems, Analysis, & Design (3 Credits)**

Prerequisites: ISM 315. An introduction to the techniques of business modeling, systems design, and implementation, including the application of software engineering tools in support of modeling and code generation. (Formerly 6500:325)

**ISM:420 Data Networks and Security (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, ISM 310, and upper level standing. Principles of the design and management of data networks for business communications. (Formerly 6500:420)

**ISM:425 Decision Support with Data Warehousing & Data Mining (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, ISM 324, and MGMT 305. Examines managerial and technical aspects of business decision-making based on the use of data warehouses, on-line analytical processing (OLAP) and data mining. (Formerly 6500:425)

**ISM:426 E-Business Application Development (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, ACCT 250, and upper level standing. Students will gain an understanding of issues and skills related to web application design and development. (Formerly 6500:426)

**ISM:427 Systems Integration (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college and ISM 315. The course provides an understanding of issues and underlying application integration. Topics include coverage of middleware technologies, B2B standards and XML. (Formerly 6500:427)

**ISM:428 Systems Development Project (3 Credits)**

Prerequisites: ISM 324 and ISM 325. Pre/Corequisite: ISM 427. Implementing business objects and use cases in projects. Object persistence, object collaboration, and controller and UI designs are discussed. (Formerly 6500:428)

**ISM:488 Internship in Information Systems (3 Credits)**

Prerequisite: Permission of department chair or designated faculty member. On the job experience with public or private sector organizations. (Formerly 6500:488)

## Supply Chain and Operations Management (SCM)

**SCM:330 Principles of Supply Chain and Operations Management (3 Credits)**

Prerequisite: Completion of 32 credit hours. An overview of the terminology, fundamental concepts and scope of responsibility encountered in the fields of supply chain and operations management. (Formerly 6500:330)

**SCM:333 Supply Chain and Operations Analysis (3 Credits)**

Prerequisites: MGMT 304 and SCM 330. Application of quantitative models in the analysis and design of systems in the supply chain and in manufacturing and service operations environments. (Formerly 6500:333)

**SCM:334 Service Operations Management (3 Credits)**

Prerequisite: SCM 330. An overview of the fundamental terminology, principles, concepts and problem solving methods encountered in the contemporary field of service operations management. (Formerly 6500:334)

**SCM:390 Supply Chain Modeling and Decision Making (3 Credits)**

Prerequisites: ACCT 250, MGMT 304, and SCM 330. Spreadsheet based, example-driven approach to develop models and methodologies for supply chain analysis and decision making. (Formerly 6500:390)

**SCM:421 Operations Research (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and SCM 330. Examines the use of operations research techniques in managerial decision-making processes; constrained linear optimization, non-linear optimization, network analysis, queuing theory, simulation. (Formerly 6500:421)

**SCM:433 Supply Chain Logistics Planning (3 Credits)**

Prerequisites: Admission to a major in a 4-year degree granting college and SCM 330. Emphasizes the importance of planning in the development of the domestic and global supply chain logistics system that includes transportation, inventory, warehousing and procurement. (Formerly 6500:433)

**SCM:434 Production Planning & Control (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level standing, and SCM 333. Coverage of materials management, production planning, scheduling and control. Integrates material from previous courses, provides overall framework including use of computer and quantitative methods. (Formerly 6500:434)

**SCM:435 Quality Management & Control (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level standing, and SCM 330. Emphasis on statistical techniques essential to controlling product quality for both measurement and attribute data. Includes control chart methods and acceptance sampling plans. (Formerly 6500:435)

**SCM:475 Supply Chain Operations Strategy (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, MGMT 302, ISM 310, SCM 333, and SCM 390. Pre/Corequisites: SCM 433 and SCM 476. Capstone course integrating supply chain concepts to solve real world supply chain problems primarily using a case study approach. (Formerly 6500:475)

**SCM:476 Supply Chain Sourcing (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college and SCM 330. Introduces the student to fundamental sourcing concepts as well as the scope of responsibility and critical roles of the sourcing function within the principal organization in a supply chain network. (Formerly 6500:476)

**SCM:479 Operations Simulation (1 Credit)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college and SCM 333. Simulation of operations management practices through computerized or experiential exercises. (Formerly 6500:479)

**SCM:486 Internship in Supply Chain/Ops (3 Credits)**

Prerequisite: Permission of department chair or designated faculty member. On the job experiences with public or private sector organizations. (Formerly 6500:486)

## Human Resource Management (HRM)

**HRM:341 Human Resource Management (3 Credits)**

Prerequisite: 48 completed credit hours. Principles, policies, and practices in administering functions of recruiting, selecting, training, compensating, and appraising human resources of organizations. (Formerly 6500:341)

**HRM:342 Employee and Labor Relations (3 Credits)**

Prerequisite: 64 completed credit hours. Pre/Corequisite: HRM 341. Analysis of management, union and employee objectives, attitudes and strategy, as they affect conduct of business and economy. Stress placed on group assigned readings and reports. (Formerly 6500:342)

**HRM:350 Fundamentals of Enterprise Resource Planning (3 Credits)**

Prerequisites: ACCT 250 and 48 completed credit hours. The enterprise wide process of decreasing operating costs, rationalizing the supply chain, improving management control, and decreasing cycle time by implementing ERP based solutions (Formerly 6500:350)

**HRM:441 Training and Development (3 Credits)**

Prerequisites: Admission to a major in a 4-year degree granting college and HRM 341. Comprehensive study of employee training and development methods and practices including performance analysis, design, development, implementation and evaluation (Formerly 6500:441)

**HRM:442 Compensation Management and Reward Systems (3 Credits)**

Prerequisites: Admission to a major in a 4-year degree granting college, junior standing and HRM 341. This course focuses on the development, implementation, and assessment of a business firm's compensation and reward system. (Formerly 6500:442)

**HRM:443 Human Resources Selection & Staffing (3 Credits)**

Prerequisites: Upper level standing, admission to a major in a 4-year degree granting college, and HRM 341. Advanced study of selection and staffing within business organizations. Emphasis on current research and practice. Activities include projects, case studies, interaction with human resource professionals. (Formerly 6500:443)

**HRM:458 Special Topics in Managerial Arbitration, Mediation & Conciliation (1-3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level or graduate standing and [MGMT 301 or HRM 600 or equivalent]. Study of the various methods and mechanisms by which management can understand and deal with internal and external conflict. Six hour limit. (Formerly 6500:458)

**HRM:471 Management Consulting Project (3 Credits)**

Prerequisites: Admitted to the Human Resources Management major, MGMT 302, ISM 310, HRM 342, HRM 442, and HRM 443. Students develop skills in field-based management problem solving, project management, and requirements analysis under conditions of uncertainty in a collaborative interdisciplinary team environment. (Formerly 6500:471)

**HRM:478 Human Resource Simulation (1 Credit)**

Prerequisite: HRM 341. Simulation of human resource practices through computerized or experiential exercises. (Formerly 6500:478)

**HRM:487 Internship in Human Resources (3 Credits)**

Prerequisite: Permission of department chair or designated faculty member. On the job experiences with public or private sector organizations. (Formerly 6500:487)

## Health Care Management (HCM)

### HCM:480 Introduction to Health-Care Management (3 Credits)

Prerequisites: Must be admitted to a 4-year degree granting college and hold at minimum a junior standing or higher (Students who are required to take 6500:301 or have completed MGMT 301 or equivalent are ineligible to take this course for credit). Introductory course for health professionals covering principles and concepts of management applied to health services organizations. For those registered for graduate credit, a major paper is required. (Formerly 6500:480)

### HCM:482 Health Services Operations Management (3 Credits)

Prerequisites: Must be admitted to a major in a 4-year degree granting college, [upper level standing and MGMT 301 or HCM 480 or equivalents], or [graduate standing and HCM 681 or equivalent]. (Students who have completed SCM 330 are ineligible to take this course for credit). Application of production and operations management concepts and techniques in health services organizations. (Formerly 6500:482)

### HCM:485 Special Topics: Health Services Administration (1-3 Credits)

Prerequisite: Must be admitted to a major in a 4-year degree granting college. Special topics in health services administration (e.g., management) focusing on historical and/or contemporary managerial organizational and/or policy/strategy issues as related to health-care organizations and health-care systems. Separate topics may be repeated for a maximum of six credits. For those registered for graduate credit, a major research paper is required. (Formerly 6500:485)

## Business Management, BBA

### Bachelor of Business Administration in Business Management (650204ZBBA)

You will earn a degree from a globally recognized business school where the programs are taught by an accomplished and dedicated faculty and are supported by a network of business executives. As a graduate, you will have leadership and collaboration competencies and be a data savvy, globally aware, enterprise thinker.

## Requirements for Admission

- 2.5 average cumulative
- English Composition I and II (ENGL:111 AND ENGL:112)
- Speech requirement (COMM:105 OR COMM:106)
- College Algebra (MATH:145) or Calculus with Business Applications (MATH:210)
- Principles of Microeconomics (ECON:200) or Principles of Macroeconomics (ECON:201)
- One of the following courses:
  - Accounting Principles I (ACCT:201)
  - Spreadsheet Modeling & Decision Analysis (ACCT:250)
  - Introduction to Entrepreneurship (ENTRE:201)
  - Legal & Social Environment of Business (BLAW:220)
  - Marketing Principles (MKTG:205)

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of **The Department of Management** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Business Management majors are **NOT** required to Calculus with Business Applications. Business Management majors must complete Algebra for Calculus with a C- or higher. For assistance with course requirements and/or scheduling classes, please meet with an academic advisor in the College of Business.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	4
	College of Business Core	42
	Business Management Required and Elective Courses	21
	Additional Credits for Graduation *	19
	<b>Total Hours</b>	<b>120</b>

\* This major requires a minimum of 120 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		

**Integrated and Applied Learning**

Select one class from one of the following subcategories:

Complex Issues Facing Society

Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

**Additional Business Requirements**

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
Total Hours		4

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

**College of Business Core <sup>1</sup>**

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

**Business Management Required & Elective Courses**

Code	Title	Hours
<b>Required Courses</b>		
MGMT:302	Organizational Behavior & Leadership Skills	3
HRM:341	Human Resource Management	3
<b>Elective Options - 5 of the below courses:</b>		<b>15</b>

ECON:310	Managerial Economics	
ECON:415	Cost-Benefit Analysis	
CPSC:200	Programming for Data Science	
ACCT:450	Advanced Applied Analytics & Decision Analysis <sup>1</sup>	
ENTRE:201	Introduction to Entrepreneurship	
FPL:200	Foundations of Personal Finance	
ISM:315	Applications Development for Business Processes	
SCM:433	Supply Chain Logistics Planning	
SCM:476	Supply Chain Sourcing	
HRM:443	Human Resources Selection & Staffing	
SALES:275	Professional Selling	
SALES:475	Business Negotiations	
MKTG:355	Consumer Behavior	
MKTG:460	B2B Marketing	
Total Hours		21

<sup>1</sup> Prerequisites include ACCT:202, ACCT:250, ACCT:322, FIN:301, and MGMT:304. Students may petition to their College of Business advisor to take this course without ACCT:322.

**Graduation Requirements – Review DPR for Status**

- 120 Credit Hours. 110 credits are accounted for in above course listings. Remaining 10 credits can be comprised of testing credit or other college-credit earning coursework.
- College of Business Residency = Last 15 credits earned in the College of Business
- UA Residency = Students must complete their final 30 credits in residence at The University of Akron
- At least 50% of the business core and major course requirements must be earned at The University of Akron
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

**Recommended Sequence**

<b>1st Year</b>		
<b>Fall Semester</b>		<b>Hours</b>
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:106	Effective Oral Communication	3
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
Hours		17-19

<b>Spring Semester</b>		
ENGL:112	English Composition II	3
BUSN:111	Professional Development Seminar	1
	Natural Science Requirement with Lab	4
	Arts Requirement	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
Hours		17



**2nd Year****Fall Semester**

ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
	Hours	15

**Spring Semester**

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
	Hours	15

**3rd Year****Fall Semester**

FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:302	Organizational Behavior & Leadership Skills	3
SCM:330	Principles of Supply Chain and Operations Management	3
	Complex Issues Requirement	3
	Hours	15

**Spring Semester**

MGMT:305	Business Analytics	3
HRM:341	Human Resource Management	3
	Business Management Elective	3
	Business Management Elective	3
	Natural Science Requirement	3
	Hours	15

**4th Year****Fall Semester**

	Business Management Elective	3
	Business Management Elective	3
	Free Elective	3
	Free Elective	3
	Free Elective	3
	Hours	15

**Spring Semester**

MGMT:490	Strategic Management	3
	Business Management Elective	3
	Free Elective	3
	Free Elective	3
	Hours	12
	Total Hours	121-123

## Esports Business, Certificate

### Certificate in Esports Business (650300C)

This certificate is prepared to respond to the industry's need for business professionals by providing a platform to our students that will promote

intellectual discussion/knowledge creation about the esports industry. Specifically, this certificate will prepare students planning to work in the esports industry with the knowledge base necessary to understand up-to-date information about current global esports ecosystem.

**College of Business Undergraduate Programs**

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of the **Department of Management** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

**College of Business Policies for Certificates:**

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

**Summary**

Code	Title	Hours
	Required Courses	9
	Electives	3
	Total Hours	12

**Required Courses**

Code	Title	Hours
MGMT:380	Global Esports Business Management	3
MGMT:400	Esports Event Management	3
MKTG:205	Marketing Principles	3
	Total Hours	9

**Electives**

Code	Title	Hours
	<b>Select one of the following:</b>	<b>3</b>
ENTRE:201	Introduction to Entrepreneurship	
MKTG:446	Social Media Marketing	
MGMT:422	Applied Sales in Sport	
INTB:205	International Business	
COMM:307	Principles of Social Media	
	Total Hours	3

## Human Resource Management, Minor Minor in Human Resource Management (650005M)

Managing human resource (HR) functions has evolved to become a key to an organization's management process. It is widely recognized that a well-functioning HR group significantly contributes to an organization's bottom-line and overall success. The 18-credit Human Resource Management (HRM) minor focuses on the systems and programs that effectively manage an organization's employees.

Human resource management (HRM) includes the set of tasks directed at effectively managing an organization's human resources. HRM professionals create and oversee the talent management systems related to compensation, benefits, career development, training, staffing and other functions. The overall objective of HRM practitioners is to structure staffing systems to recruit and retain the best talent by making an organization an employer of choice.

Human Resource Management will prepare you to pursue an exciting career as an HR professional.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **Department of Management** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
	Required Courses	9
	Electives	9
	Total Hours	18

## Required Courses

Code	Title	Hours
MGMT:301	Management: Principles & Concepts	3
ISM:310	Business Information Systems	3
HRM:341	Human Resource Management	3
	Total Hours	9

## Electives

Code	Title	Hours
<b>Select three of the following:</b>		<b>9</b>
MGMT:302	Organizational Behavior & Leadership Skills	
MGMT:457	International Management <sup>1</sup>	

HRM:342	Employee and Labor Relations	
HRM:442	Compensation Management and Reward Systems	1
HRM:443	Human Resources Selection & Staffing <sup>1</sup>	
Total Hours		9

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Human Resources Management, BBA Bachelor of Business Administration in Human Resources Management (650005BBA)

More on the Human Resources Management major (<https://www.uakron.edu/cba/undergraduate/majors/human-resources.dot>)

You will earn a degree from a globally recognized business school where the programs are taught by an accomplished and dedicated faculty and are supported by a network of business executives. You can major in a wide variety of interesting disciplines that are attractive to prospective employers. As a graduate, you will have leadership and collaboration competencies and be a data savvy, globally aware, enterprise thinker.

## Requirements for Admission

- 2.5 average cumulative
- English Composition I and II (ENGL:111 & ENGL:112)
- Speech requirement (COMM:105 or COMM:106)
- College Algebra (MATH:145) or Calculus with Business Applications (MATH:210)
- Principles of Microeconomics (ECON:200) or Principles of Macroeconomics (ECON:201)
- One of the following courses:
  - Accounting Principles I (ACCT:201)
  - Spreadsheet Modeling & Decision Analysis (ACCT:250)
  - Introduction to Entrepreneurship (ENTRE:201)
  - Legal & Social Environment of Business (BLAW:220)
  - Marketing Principles (MKTG:205)

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of **The Department of Management** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Human Resources Management Requirements	30
	Additional Credits for Graduation *	11-10
	<b>Total Hours</b>	<b>120</b>

\* This major requires a minimum of 120 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		

### Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
<b>Total Hours</b>		<b>4</b>

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
<b>Total Hours</b>		<b>42</b>

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Human Resources Management Requirements

Code	Title	Hours
<b>Management Core</b>		
MGMT:302	Organizational Behavior & Leadership Skills	3
ISM:310	Business Information Systems	3
<b>Concentration Requirements</b>		
HRM:341	Human Resource Management	3
HRM:342	Employee and Labor Relations	3
HRM:441	Training and Development	3

HRM:442	Compensation Management and Reward Systems	3
HRM:443	Human Resources Selection & Staffing	3
HRM:471	Management Consulting Project	3
<b>Electives</b>		<b>6</b>
<i>Select two courses of the following:</i>		
	300/400 level Business course <sup>2</sup>	
<i>The following courses do not satisfy this requirement:</i>		
FIN:300	Introduction to Finance	
BLAW:321	Business Law I	
BLAW:322	Business Law II	
<b>Total Hours</b>		<b>30</b>

- <sup>1</sup> Must be admitted to 4 year degree granting major.
- <sup>2</sup> HRM:487 Internship in Human Resources can count towards one of the electives. Students must meet requirements for HR internship to be eligible.

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business Residency = Last 15 credits earned in the College of Business
- UA Residency = Students must complete their final 30 credits in residence at The University of Akron
- At least 50% of the business core and major course requirements must be earned at The University of Akron
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:105	Introduction to Public Speaking	3
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
	<b>Hours</b>	<b>17-19</b>
<b>Spring Semester</b>		
BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Natural Science Requirement with Lab	4
	Arts Requirement	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	<b>Hours</b>	<b>17</b>
<b>2nd Year</b>		
<b>Fall Semester</b>		
ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3

BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
	<b>Hours</b>	<b>15</b>
<b>Spring Semester</b>		
ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
	<b>Hours</b>	<b>15</b>

3rd Year		
<b>Fall Semester</b>		
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
HRM:341	Human Resource Management	3
	Complex Issues Requirement	3
	<b>Hours</b>	<b>15</b>

<b>Spring Semester</b>		
MGMT:305	Business Analytics	3
HRM:342	Employee and Labor Relations	3
HRM:443	Human Resources Selection & Staffing	3
	Free Elective	3
	Natural Science Requirement	3
	<b>Hours</b>	<b>15</b>

4th Year		
<b>Fall Semester</b>		
HRM:441	Training and Development	3
HRM:442	Compensation Management and Reward Systems	3
ISM:310	Business Information Systems	3
	Business Elective	3
	Major Elective	3
	<b>Hours</b>	<b>15</b>

<b>Spring Semester</b>		
MGMT:490	Strategic Management	3
HRM:471	Management Consulting Project	3
	Major Elective	3
	Complex Issues Requirement	3
	Free Elective	2
	<b>Hours</b>	<b>14</b>
	<b>Total Hours</b>	<b>123-125</b>

## Information Systems Management, Minor

### Minor in Information Systems Management (650004M)

The 18-credit Management of Information Systems minor enables students to develop information technology knowledge and skills that

will complement any major. A MIS minor is a useful addition to any career path in private industry, government, or non-profit sectors.

The Management of Information Systems minor enables students to develop knowledge and skills in information systems that will complement their major. A MIS minor is a useful addition to any career path in private industry, government, or non-profit sectors.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of the **Department of Management** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
MGMT:301	Management: Principles & Concepts	3
ISM:310	Business Information Systems	3
ISM:324	Database Management for Information Systems	3
ISM:325	Systems, Analysis, & Design	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		<b>6</b>
ACCT:250	Spreadsheet Modeling & Decision Analysis	
ISM:315	Applications Development for Business Processes <sup>1</sup>	
	or CPSC:210 Computer Science II	
HRM:350	Fundamentals of Enterprise Resource Planning	
ISM:420	Data Networks and Security <sup>2</sup>	
ISM:425	Decision Support with Data Warehousing & Data Mining <sup>2</sup>	
Total Hours		6

<sup>1</sup> Or AP Computer Science Exam with grade 3.0 or better

<sup>2</sup> Must be admitted to 4 year degree granting major.

## Information Systems, BBA

### Bachelor of Business Administration in Information Systems (650004BBA)

More on the Information Systems major (<https://www.uakron.edu/cba/undergraduate/majors/information-systems.dot>)

You will earn a degree from a globally recognized business school where the programs are taught by an accomplished and dedicated faculty and are supported by a network of business executives. You can major in a wide variety of interesting disciplines that are attractive to prospective employers. As a graduate, you will have leadership and collaboration competencies and be a data savvy, globally aware, enterprise thinker.

#### College of Business Undergraduate Programs

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businessadvising@uakron.edu  
College of Business room 260

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Information Systems Requirements	30-31
	Additional Credits for Graduation *	11-9
Total Hours		120

\* This major requires a minimum of 120 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
Total Hours		4

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Information Systems Requirements

Code	Title	Hours
<b>Management Core</b>		
MGMT:302	Organizational Behavior & Leadership Skills	3
ISM:310	Business Information Systems	3
<b>Concentration Requirements</b>		
ISM:315	Applications Development for Business Processes	3-4
or CPSC:210	Computer Science II	
ISM:324	Database Management for Information Systems	3
ISM:325	Systems, Analysis, & Design	3
ISM:420	Data Networks and Security <sup>1</sup>	3
ISM:425	Decision Support with Data Warehousing & Data Mining <sup>1</sup>	3
ISM:427	Systems Integration <sup>1</sup>	3
ISM:428	Systems Development Project <sup>1</sup>	3
<b>Information Systems Electives</b>		
<i>Select one of the following:</i>		
CPSC:316	Data Structures	
CPSC:389	Intermediate Topics in Computer Science	
CPSC:4xx		
BUS:495		
ACCT:454	Information Systems Security	
SCM:333	Supply Chain and Operations Analysis	
HRM:341	Human Resource Management	
ISM:488	Internship in Information Systems	
Total Hours		30-31

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business residency = Last 15 credits earned in the College of Business
- UA residency = Students must complete their final 30 credits in residence at The University of Akron
- At least 50% of the business core and major course requirements must be earned at The University of Akron
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

1st Year		
Fall Semester		Hours
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
	Hours	17-19
Spring Semester		
BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
	Arts Requirement	3
	Natural Science Requirement with Lab	4
	Hours	17
2nd Year		
Fall Semester		
ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
	Hours	15
Spring Semester		
ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
	Hours	15
3rd Year		
Fall Semester		
MGMT:304	Business Statistics	3
ISM:310	Business Information Systems	3

ISM:315	Applications Development for Business Processes	3
ISM:324	Database Management for Information Systems	3
	Complex Issues Requirement	3
	Hours	15

Spring Semester		
MGMT:305	Business Analytics	3
SCM:330	Principles of Supply Chain and Operations Management	3
ISM:325	Systems, Analysis, & Design	3
ISM:420	Data Networks and Security	3
	Natural Science Requirement	3
	Hours	15

4th Year		
Fall Semester		
FIN:301	Principles of Finance	3
ISM:425	Decision Support with Data Warehousing & Data Mining	3
	ISM Elective	3
	Free Elective	3
	Free Elective	3
	Hours	15

Spring Semester		
MGMT:490	Strategic Management	3
ISM:427	Systems Integration	3
ISM:428	Systems Development Project	3
	Free Elective	3
	Hours	12
	Total Hours	121-123

## Managing People, Certificate Certificate in Managing People (650010C)

The Managing People Certificate will provide students with skills to lead and manage others in the organization. By completing this certificate, students will be prepared for supervisory or management positions.

The Managing People Certificate is twelve credits which includes four 3-credit classes from the Management department at the College of Business.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

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**College of Business Policies for Certificates:**

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

- Legal & Social Environment of Business (BLAW:220)
- Marketing Principles (MKTG:205)

**College of Business Undergraduate Programs**

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 College of Business room 260

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## Summary

Code	Title	Hours
Required Courses		12
Total Hours		12

## Required Courses

Code	Title	Hours
MGMT:301	Management: Principles & Concepts	3
MGMT:302	Organizational Behavior & Leadership Skills	3
HRM:341	Human Resource Management	3
HRM:342	Employee and Labor Relations	3
or HRM:443	Human Resources Selection & Staffing	
Total Hours		12

## Sport Analytics, BS

### Bachelor of Science in Sport Analytics (65011BS)

The Bachelor of Science in Sport Analytics is a 120 credit hour program designed to provide students with quantitative skills and knowledge alongside sport industry experience in preparation for career(s) as a sport analyst.

The degree provides students with a unique skill set that can be utilized in all aspects of the sport industry including team operations and customer engagement for data-driven decision makers in sport organizations.

## Requirements for Admission

- 2.5 average cumulative
- English Composition I and II (ENGL:111 & ENGL:112)
- Speech requirement (COMM:105 or COMM:106)
- Analytic Geometry-Calculus I (MATH:221)
- Principles of Microeconomics (ECON:200) or Principles of Macroeconomics (ECON:201)
- One of the following courses:
  - Accounting Principles I (ACCT:201)
  - Spreadsheet Modeling & Decision Analysis (ACCT:250)
  - Introduction to Entrepreneurship (ENTRE:201)

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Sport Analytics Core		59
Sport Analytics Electives		27
Total Hours		120

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		

<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:221	Analytic Geometry-Calculus I	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
PHIL:120	Introduction to Ethics	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	



**Diversity**

Domestic Diversity	
SOCIO:100	Introduction to Sociology
Global Diversity	
ANTH:251	Human Diversity
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

**Sport Analytics Core Curriculum**

Code	Title	Hours
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
CPSC:200	Programming for Data Science	4
ECON:325	Applied Econometrics I	3
ECON:326	Applied Econometrics II	3
ECON:423	Applied Game Theory	3
FIN:301	Principles of Finance	3
MGMT:301	Management: Principles & Concepts	3
MGMT:304	Business Statistics	3
ISM:324	Database Management for Information Systems	3
MGMT:370	Financial Issues in Sport	3
MGMT:404	Current Topics in Sport Business	3
MGMT:470	Sport Business Consulting Project	3
MKTG:205	Marketing Principles	3
STAT:462	Applied Regression and ANOVA	4
STAT:480	Statistical Data Management	3
STAT:483	Advanced Statistical Computing	3
STAT:484	Introduction to Machine Learning	3
STAT:485	Applied Analytics-Decision Trees	3
Total Hours		59

**Sport Analytics Electives**

Code	Title	Hours
<b>Choose courses from the following list to satisfy the University of Akron's minimum 120 completed credit hour total</b>		27
MKTG:335	Marketing Research	
MKTG:336	Marketing Research Lab	
MKTG:355	Consumer Behavior	
MKTG:375	Marketing & Sales Analytics	
MKTG:440	Brand Management	
ECON:310	Managerial Economics	
ECON:333	Labor Economics	
ECON:350	Women and the Economy	
ECON:405	Economics of the Public Sector	
ECON:427	Economic Forecasting	
ECON:438	Economics of Sports	
MATH:222	Analytic Geometry-Calculus II	

MATH:223	Analytic Geometry-Calculus III
MATH:312	Linear Algebra
ACCT:202	Accounting Principles II
BLAW:220	Legal & Social Environment of Business
ISM:310	Business Information Systems
ISM:315	Applications Development for Business Processes
ISM:325	Systems, Analysis, & Design
ISM:420	Data Networks and Security
ISM:425	Decision Support with Data Warehousing & Data Mining
ISM:427	Systems Integration
MGMT:422	Applied Sales in Sport
SPRT:100	Introduction to Sport Studies
SPRT:424	Sports Leadership
CPSC:209	Computer Science I
STAT:262	Introductory Statistics II
STAT:495	Statistical Consulting
Approved 300/400 level mathematical sciences electives	
Total Hours	27

**Recommended Sequence****1st Year**

Fall Semester		Hours
ENGL:111	English Composition I	3
SOCIO:100	Introduction to Sociology	3
MATH:221	Analytic Geometry-Calculus I	4
Natural Science Requirement with Lab		4
Hours		14

**Spring Semester**

ENGL:112	English Composition II	3
ECON:200	Principles of Microeconomics (Social Science Requirement)	3
COMM:105	Introduction to Public Speaking (Speaking Requirement)	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
Natural Science Requirement		3
Hours		15

**2nd Year****Fall Semester**

ACCT:201	Accounting Principles I	3
PHIL:170	Introduction to Logic (Humanities Requirement)	3
ECON:201	Principles of Macroeconomics	3
CPSC:200	Programming for Data Science	4
MGMT:304	Business Statistics	3
Hours		16

**Spring Semester**

MKTG:205	Marketing Principles	3
ANTH:251	Human Diversity (Global Diversity Requirement)	3
FIN:301	Principles of Finance	3
ECON:325	Applied Econometrics I	3

STAT:462	Applied Regression and ANOVA	4
	Hours	16
<b>3rd Year</b>		
<b>Fall Semester</b>		
ECON:326	Applied Econometrics II	3
MGMT:301	Management: Principles & Concepts	3
MGMT:370	Financial Issues in Sport	3
	Sport Analytics Elective	3
	Arts Requirement	3
	Hours	15
<b>Spring Semester</b>		
ISM:324	Database Management for Information Systems	3
STAT:480	Statistical Data Management	3
PHIL:241	Technology & Human Values	3
	Complex Issues Requirement	3
	Sport Analytics Elective	3
	Hours	15
<b>4th Year</b>		
<b>Fall Semester</b>		
ECON:423	Applied Game Theory	3
MGMT:404	Current Topics in Sport Business	3
STAT:484	Introduction to Machine Learning	3
STAT:483	Advanced Statistical Computing	3
	Sport Analytics Elective	3
	Hours	15
<b>Spring Semester</b>		
MGMT:470	Sport Business Consulting Project	3
STAT:485	Applied Analytics-Decision Trees	3
	Sport Analytics Elective	3
	Sport Analytics Elective	3
	Sport Analytics Elective	2
	Hours	14
	Total Hours	120

- Analytic Geometry-Calculus I (MATH:221)
- Principles of Microeconomics (ECON:200) or Principles of Macroeconomics (ECON:201)
- One of the following courses:
  - Accounting Principles I (ACCT:201)
  - Spreadsheet Modeling & Decision Analysis (ACCT:250)
  - Introduction to Entrepreneurship (ENTRE:201)
  - Legal & Social Environment of Business (BLAW:220)
  - Marketing Principles (MKTG:205)

#### College of Business Undergraduate Programs

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## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	4
	College of Business Core	42
	Sport Management Requirements	33
	Additional Credits for Graduation *	7
	Total Hours	120

## Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

#### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:145 Algebra for Calculus

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
 or COMM:106 Effective Oral Communication

*Writing: 6 credit hours*

## Sport Business, BBA

### Bachelor of Business Administration in Sport Business (650110BBA)

The BBA in Sport Business degree prepares students to answer important questions that arise in sport business. Core competencies include critical thinking and communication skills as well as a broad understanding of business administration-related coursework as it relates to the sport industry. Students gain experience in applying business concepts in sport-specific settings which culminates with a consulting project. Upon completion of the program, students can expect job opportunities in varying roles in professional, intercollegiate, and community sport organizations.

### Requirements for Admission

- 2.5 average cumulative
- English Composition I and II (ENGL:111 & ENGL:112)
- Speech requirement (COMM:105 or COMM:106)

ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
PHIL:120	Introduction to Ethics	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
Total Hours		4

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3

INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Sport Business Requirements

Code	Title	Hours
SPRT:100	Introduction to Sport Studies	3
SPRT:424	Sports Leadership	3
MGMT:370	Financial Issues in Sport	3
MGMT:422	Applied Sales in Sport	3
MGMT:404	Current Topics in Sport Business	3
MGMT:470	Sport Business Consulting Project	3
Additional Approved Electives		15
Total Hours		33

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- CBA Residency = Last 15 credits earned in the College of Business
- UA Residency = Students must complete their final 30 credits in residence at The University of Akron
- At least 50% of the business core and major course requirements must be earned at The University of Akron
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

### 1st Year

Fall Semester	Hours	
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:105	Introduction to Public Speaking	3
or COMM:106	or Effective Oral Communication	
SOCIO:100	Introduction to Sociology	3
Humanities Requirement		3
Hours		17-19

### Spring Semester

BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
Arts/Humanities Requirement		3
Global Diversity Requirement		3
Arts Requirement		3
Natural Science Requirement with Lab		4
Hours		17

### 2nd Year

Fall Semester	Hours	
ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3

BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
Hours		15
<b>Spring Semester</b>		
ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
Hours		15
<b>3rd Year</b>		
<b>Fall Semester</b>		
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
SPRT:100	Introduction to Sport Studies	3
Complex Issues Requirement		3
Hours		15
<b>Spring Semester</b>		
MGMT:305	Business Analytics	3
SPRT:424	Sports Leadership	3
MGMT:422	Applied Sales in Sport	3
Sport Business Elective		3
Natural Science Requirement		3
Hours		15
<b>4th Year</b>		
<b>Fall Semester</b>		
MGMT:370	Financial Issues in Sport	3
MGMT:404	Current Topics in Sport Business	3
Sport Business Elective		3
Sport Business Elective		3
Free Elective		2
Hours		14
<b>Spring Semester</b>		
MGMT:470	Sport Business Consulting Project	3
MGMT:490	Strategic Management	3
Free Elective		3
Free Elective		3
Hours		12
Total Hours		120-122

## Recommended Sequence

# Supply Chain Management, Certificate

## Certificate in Supply Chain Management (650203C)

The Supply Chain Management certificate is designed to guide individuals to effectively and efficiently apply the supply chain concepts

in the business areas of procurement, transportation, fulfillment, inventory management and distribution.

The Supply Chain Management certificate is nine credits which includes three 3-credit classes from the Management department at the College of Business.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)  
College of Business room 260

The following information has official approval of the **Department of Management** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

## Summary

Code	Title	Hours
Required Courses		9
Total Hours		9

## Required Courses

Code	Title	Hours
SCM:330	Principles of Supply Chain and Operations Management	3
SCM:433	Supply Chain Logistics Planning <sup>1</sup>	3
SCM:476	Supply Chain Sourcing <sup>1</sup>	3
Total Hours		9

<sup>1</sup> Admission to a major in a four-year degree granting college, and SCM:330. Students not in a four-year degree granting major may petition to the College of Business Advising Office to take the course without the prerequisites.

## Supply Chain Management, Minor Minor in Supply Chain Management (650203M)

Supply Chain Management is the coordination and integration of the activities that procure materials and services, transform them into intermediate and final products, and deliver them to the customer. It involves the management of:

- the flow of materials and products;
- the flow of money;
- the flow of information;
- relationships among the organizations comprising the supply chain.

The overall goal of supply chain/operations management is to impact the organization's bottom-line in a positive way while delivering the best services to customers at the lowest possible cost.

The 18-credit Supply Chain/Operations Management Minor helps students begin to understand the coordination and integration of the activities that procure materials and services, transform them into intermediate and final products, and deliver them to the customer – processes at the heart of the discipline. The overall goal of supply chain/operations management is to impact an organization's bottom-line in a positive way while delivering the best services to customers at the lowest possible cost.

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)

College of Business room 260

The following information has official approval of the **Department of Management** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
MGMT:301	Management: Principles & Concepts	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
SCM:390	Supply Chain Modeling and Decision Making	3
SCM:433	Supply Chain Logistics Planning <sup>1</sup>	3

SCM:476	Supply Chain Sourcing <sup>1</sup>	3
Total Hours		18

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Supply Chain/Operations Management, BBA

### Bachelor of Business Administration in Supply Chain/Operations Management (650203BBA)

More on the supply Chain/Operations Management major (<https://www.uakron.edu/cba/undergraduate/majors/supply-chain.dot>)

You will earn a degree from a globally recognized business school where the programs are taught by an accomplished and dedicated faculty and are supported by a network of business executives. You can major in a wide variety of interesting disciplines that are attractive to prospective employers. As a graduate, you will have leadership and collaboration competencies and be a data savvy, globally aware, enterprise thinker.

## Requirements for Admission

- 2.5 average cumulative
- English Composition I and II (ENGL:111 & ENGL:112)
- Speech requirement (COMM:105 or COMM:106)
- Analytic Geometry-Calculus I (MATH:221)
- Principles of Microeconomics (ECON:200) or Principles of Macroeconomics (ECON:201)
- One of the following courses:
  - Accounting Principles I (ACCT:201)
  - Spreadsheet Modeling & Decision Analysis (ACCT:250)
  - Introduction to Entrepreneurship (ENTRE:201)
  - Legal & Social Environment of Business (BLAW:220)
  - Marketing Principles (MKTG:205)

### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)

(330) 972-7042

[businessadvising@uakron.edu](mailto:businessadvising@uakron.edu)

College of Business room 260

The following information has official approval of **The Department of Management** and **The College of Business**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses.

Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Supply Chain/Operations Requirements	30
	Additional Credits for Graduation *	11-10
	<b>Total Hours</b>	<b>120</b>

\* This major requires a minimum of 120 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:145 Algebra for Calculus

*Speaking: 3 credit hours*

COMM:105 Introduction to Public Speaking  
or COMM:106 Effective Oral Communication

*Writing: 6 credit hours*

ENGL:111 English Composition I

ENGL:112 English Composition II

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:200 Principles of Microeconomics

SOCIO:100 Introduction to Sociology

### Diversity

Domestic Diversity

SOCIO:100 Introduction to Sociology

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours	34
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## Additional Business Requirements

Code	Title	Hours
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### General Education Mathematics Requirement

MATH:145	Algebra for Calculus	4
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### Required Business Courses

BUSN:110	College of Business Success Seminar <sup>1</sup>	
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BUSN:111	Professional Development Seminar	
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### Recommended Business Courses

BUSN:200	Personal Leadership Skills	
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Total Hours	4
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<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
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ECON:201	Principles of Macroeconomics <sup>2</sup>	3
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or ECON:244 Introduction to Economic Analysis

BUSN:230	Business Communication	3
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ACCT:201	Accounting Principles I	3
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ACCT:202	Accounting Principles II	3
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ACCT:250	Spreadsheet Modeling & Decision Analysis	3
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BLAW:220	Legal & Social Environment of Business	3
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FIN:301	Principles of Finance	3
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MGMT:304	Business Statistics	3
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MGMT:301	Management: Principles & Concepts	3
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MGMT:305	Business Analytics	3
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MGMT:490	Strategic Management	3
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SCM:330	Principles of Supply Chain and Operations Management	3
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MKTG:205	Marketing Principles	3
----------	----------------------	---

INTB:205	International Business	3
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Total Hours	42
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<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Supply Chain/Operations Requirements

Code	Title	Hours
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### Management Core

MGMT:302	Organizational Behavior & Leadership Skills	3
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ISM:310	Business Information Systems	3
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### Concentration Requirements

SCM:333	Supply Chain and Operations Analysis (Fall Only)	3
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SCM:390	Supply Chain Modeling and Decision Making (Fall Only)	3
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SCM:433	Supply Chain Logistics Planning (Spring Only) <sup>1</sup>	3
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SCM:475	Supply Chain Operations Strategy <sup>1</sup>	3
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SCM:476	Supply Chain Sourcing (Spring Only) <sup>1</sup>	3
<b>Supply Chain Electives</b>		<b>6</b>
<i>Select two of the following:</i>		
ACCT:301	Cost Management and Control	
ISM:315	Applications Development for Business Processes (Fall)	
ISM:324	Database Management for Information Systems (Fall)	
ISM:325	Systems, Analysis, & Design (Spring)	
HRM:341	Human Resource Management	
HRM:342	Employee and Labor Relations (Spring)	
HRM:350	Fundamentals of Enterprise Resource Planning	
MGMT:457	International Management	
MGMT:459	Selected Topics: International Management	
SCM:475	Supply Chain Operations Strategy	
<b>Business Elective</b>		
MGMT:3xx/4xx <sup>2</sup>		3
<b>Total Hours</b>		<b>30</b>

<sup>1</sup> Must be admitted to 4 year degree granting major.

<sup>2</sup> SCM:486 Internship in Supply Chain/Ops can count towards the Business Elective. Students must meet requirements for Supply Chain internship to be eligible.

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business Residency = Last 15 credits earned in the College of Business
- UA Residency = Students must complete their final 30 credits in residence at The University of Akron
- At least 50% of the business core and major course requirements must be earned at The University of Akron
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

### 1st Year

<b>Fall Semester</b>		<b>Hours</b>
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:105	Introduction to Public Speaking	3
or COMM:106	or Effective Oral Communication	
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
<b>Hours</b>		<b>17-19</b>

### Spring Semester

BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3

Arts Requirement	3
Natural Science Requirement with Lab	4
<b>Hours</b>	<b>17</b>

### 2nd Year

#### Fall Semester

ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
<b>Hours</b>		<b>15</b>

#### Spring Semester

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
<b>Hours</b>		<b>15</b>

### 3rd Year

#### Fall Semester

FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
MGMT:302	Organizational Behavior & Leadership Skills	3
	Complex Issues Requirement	3
<b>Hours</b>		<b>15</b>

#### Spring Semester

MGMT:305	Business Analytics	3
ISM:310	Business Information Systems	3
	Supply Chain Elective	3
	Free Elective	3
	Natural Science Requirement	3
<b>Hours</b>		<b>15</b>

### 4th Year

#### Fall Semester

SCM:333	Supply Chain and Operations Analysis	3
SCM:390	Supply Chain Modeling and Decision Making	3
	Supply Chain Elective	3
	Business Elective	3
	Free Elective	2
<b>Hours</b>		<b>14</b>

#### Spring Semester

MGMT:490	Strategic Management	3
SCM:433	Supply Chain Logistics Planning	3
SCM:475	Supply Chain Operations Strategy	3
SCM:476	Supply Chain Sourcing	3
<b>Hours</b>		<b>12</b>

**Total Hours** 120-122

# Marketing

## Marketing is about the creation of value

Ultimately, great marketing is about creating customer commitment to the products, services, causes or ideas that one produces. The discipline is built on learning the core practices associated with bringing a product, service, or idea to market including product design and development, distribution, promotion and pricing. It also focuses on how to keep products competitive through market research, branding, customer service, innovation and promotion, including digital, social media and traditional advertising. A well developed marketing strategy, which puts the customer first, will improve any organization, including for profit firms, not-for-profit organizations and government agencies.

Individuals with a marketing degree, may become marketing managers responsible for all marketing related activities of the firm. Still others may specialize in one specific area such as sales, digital marketing, advertising and promotion, brand management, product development, marketing research & analytics, customer relationship management, or media management.

## Focus on Experiential Learning

Through strong connections with alumni, advisory board members and local businesses, students are provided experiential learning that will allow them to "hit the ground running". This may include developing and analyzing a customer survey, conducting a focus group on a new product, running an eye tracking study to determine the best promotion campaign or designing a social media campaign, to introduce a new product. Students are given multiple classroom opportunities to help solve real marketing issues. Thus students are exposed to both theory and practice through courses that focus on "what to do," and "how to do it". The program also includes a semester long senior capstone experience with a firm, and internships and professionally taught specialty courses on state-of-the-art marketing practices taught by local experts.

## State of the Art Facilities

The Marketing Department has state of the art facilities through the Suarez Behavioral Research Laboratory, Fisher Institute for Professional Selling (p. 691) and the Gary and Karen Taylor Institute for Direct Marketing (p. 692). These facilities provide students opportunities for putting into practice their classroom learning. For example, sales students practice and receive feedback through video taping of sales role plays and sales negotiations, while marketing research classes utilize the focus group facilities, eye tracking equipment and survey software in the computer laboratories to conduct marketing research.

## Requirements

Students must meet all requirements of:

1. General Education Program
2. College of Business Core Program
3. Foundation courses within the Marketing program
4. Professional experiences component of the program
5. All other requirements of the major

Students may also pursue a dual major or a minor. By adding a limited number of credit hours, students could for example, pursue a double major in sales and marketing, or add a minor in international business.

Check with your College of Business advisor to determine the specific requirements for the double major or minor of your choice.

- Health Care Selling, Certificate (p. 442)
- Marketing, BBA (p. 442)
- Marketing, Minor (p. 444)
- Professional Selling for Engineering Majors, Certificate (p. 445)
- Professional Selling, Certificate (p. 446)
- Professional Selling, Minor (p. 446)
- Sales Management, BBA (p. 447)

## Marketing (MKTG)

### MKTG:205 Marketing Principles (3 Credits)

Prerequisite: 24 hours of college credit. Pre/Corequisite: ECON 200 or ECON 244. A general survey of marketing activities including analysis of markets, competition, consumer behavior, information systems, and the assessment of product, price, distribution, and promotion strategies. (Formerly 6600:205)

### MKTG:335 Marketing Research (3 Credits)

Prerequisites: MGMT 304 and [MKTG 205 with a grade of C or better]. Corequisite: MKTG 336. Student will gain hands-on experience in the understanding and use of appropriate tools and techniques for analyzing and presenting information derived from marketing databases. Includes problem definition and solution approach to marketing research decisions. (Formerly 6600:335)

### MKTG:336 Marketing Research Lab (1 Credit)

Prerequisites: MGMT 304 and MKTG 205. Corequisite: MKTG 335. Students will gain hands-on experience in the understanding and use of appropriate tools and techniques for analyzing and presenting information derived from marketing databases. Includes problem definition and solution approach to marketing research decisions. (Formerly 6600:336)

### MKTG:355 Consumer Behavior (3 Credits)

Prerequisite: MKTG 205 with a grade of C or better. Interdisciplinary approach to the analysis of the nature of consumer buying behavior. Economical, social, and psychological influences on consumers' decision-making processes are examined. (Formerly 6600:355)

### MKTG:375 Marketing & Sales Analytics (3 Credits)

Prerequisite: MKTG 335. Develop the skills to provide clients with actionable marketing intelligence gleaned from the customer, sales force, channel, promotion and competitor databases that are now pervasive in the business world. (Formerly 6600:375)

### MKTG:432 Integrated Marketing Communications (3 Credits)

Prerequisites: Must be admitted to a 4 year major, MKTG 205 with a grade of C or better, and MKTG 355. This course stresses the need for marketers to create consistent coordinated communication programs using all elements of the promotion mix including advertising, public relations, sales promotion, social media and personal selling. (Formerly 6600:432)

### MKTG:434 Digital Marketing (3 Credits)

Prerequisites: Must be admitted to a major in a four-year degree granting college, MKTG 205, and MKTG 432. Focuses on the planning and execution of the promotion mix in the digital environment through online and mobile advertising, sales promotion, social media, blogging, website design and SEO. (Formerly 6600:434)



**MKTG:440 Brand Management (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, MKTG 205, and MKTG 355. This course studies the process of building and evolving successful brands. It focuses on brand equity development by creating a distinct brand identity, impeccable brand integrity and emotional resonance. It also emphasizes brand evolution through incremental and radical innovation. (Formerly 6600:440)

**MKTG:446 Social Media Marketing (3 Credits)**

Prerequisites: Must be admitted to a four-year degree granting college, MKTG 205, MKTG 355, and MKTG 432. Examines strategies used for marketing within social media. Topics include analytics and tactics to design, manage and optimize consumer engagement and commerce. (Formerly 6600:446)

**MKTG:460 B2B Marketing (3 Credits)**

Prerequisites: Must be admitted to a four-year degree granting program and MKTG 205 with a grade of C or better. This course provides a thorough grounding in industrial and business-to-business marketing. While many of the concepts are similar to those used in consumer marketing, there are major differences. This course will explore both the similarities and the differences. (Formerly 6600:460)

**MKTG:486 Internship in Marketing (3 Credits)**

Prerequisites: Must be admitted to a 4-year degree granting major and permission of department chair. On-the-job experience with public or private sector organizations in the field of marketing. On-the-job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by a weekly diary, two reflection papers, and an oral presentation of their experiences, which are supervised and evaluated by the department chair. (Formerly 6600:486)

**MKTG:488 Internship in Integrated Marketing Communications (3 Credits)**

Prerequisite: Permission of department chair. On the job experience with public or private sector organizations in the field of marketing. On the job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by the weekly diary and term paper, which are supervised and evaluated by the department chair. (Formerly 6600:488)

**MKTG:491 Professional Workshops in Marketing (1-3 Credits)**

Prerequisites: Sophomore status and be admitted to a 4 year degree granting college. Special topics in marketing taught primarily by professionals with the objective of adding depth and an applied perspective to marketing concepts, issues, software & databases, problem solving and career planning. Special emphasis is given to timely issues and new technologies required by the rapidly changing marketplace. (May be repeated for up to six credits.) (Formerly 6600:491)

**MKTG:494 Professional Insights: Marketing Management (1 Credit)**

Prerequisites: Junior status and be admitted into a four year degree granting college. Marketing Management is designed to link marketing management majors' academic learning to professional practice. Guest speakers, recognized experts in their field, share important lessons in marketing management and challenge students to address key issues in their profession. (Formerly 6600:494)

**MKTG:495 Professional Insights: IMC (1 Credit)**

Prerequisites: Junior status and be admitted into a four year degree granting program. IMC is designed to link Integrated Marketing Communication majors' academic learning to professional practice. Guest speakers, recognized experts in their field, share important lessons in IMC and challenge students to address key issues in their profession. (Formerly 6600:495)

**MKTG:496 Special Topics: Marketing (1-3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and MKTG 205. (May be repeated for a total of three credits) Provides an opportunity to examine special topics and/or current issues in the fields of marketing, sales retailing or advertising. (Formerly 6600:496)

**MKTG:499 Marketing Capstone Project (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year, degree granting college and for all Marketing majors: SALES 275, MKTG 335, MKTG 355, MKTG 375. PLUS for Sales Management majors: SALES 475, SALES 480; For IMC majors: MKTG 432, 6600:438; For Marketing Management majors: MKTG 440, MKTG 460. Student teams comprised of members from each marketing major will refine a live Client marketing strategy (product, price, distribution and promotion) and develop complementary integrated marketing communication and sales force plans. (Formerly 6600:499)

## Sales (SALES)

**SALES:275 Professional Selling (3 Credits)**

Prerequisite: 25 credits or permission from instructor. Builds communication skills while learning about buyer needs, persuasion and social influence, prospecting, making sales presentations, persuading, overcoming sales resistance, closing sales and building relationships. (Formerly 6600:275)

**SALES:475 Business Negotiations (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, 25 credits, and SALES 275. Examines business negotiation principles and practices, and builds skills in the process of negotiating business agreements within a global environment. (Formerly 6600:475)

**SALES:478 Advanced Professional Selling (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and SALES 275. Broadens students understanding of the sales process looking at complex sales and solutions selling. Intense lab work focusing on communication skills, asking the right questions to fully understand needs, helping client turn implicit needs into explicit needs, conducting B2B and complex negotiations, and understanding how to create win-win solutions. (Formerly 6600:478)

**SALES:480 Sales Management (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and [COMM 101 or MKTG 205]. Develops analytical and managerial skills through case studies and other learning activities relating to the organization, selection, training, motivation, and control of a domestic or global sales force. (Formerly 6600:480)

**SALES:487 Internship in Sales Management (3 Credits)**

Prerequisite: Permission of department chair. On-the-job experience with public or private sector organizations in the field of marketing. On-the-job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by a weekly diary and a term paper, which are supervised and evaluated by the department chair. (Formerly 6600:487)

**SALES:493 Professional Insights: Sales Management (1 Credit)**

Prerequisites: Junior standing or higher and admission into a 4 year degree program. Sales Management is designed to link sales management majors' academic learning to professional practice. Guest speakers, recognized experts in their field, share important lessons in professional selling and sales management and challenge students to address key issues in their profession as preparation for an internship and career. (Formerly 6600:493)

## Health Care Selling, Certificate

### Certificate in Health Care Selling (660108C)

The **15-credit** Certificate in Health Care Selling program provides students an opportunity to develop and document an understanding of selling within the health care industry, an important industry that accounts for approximately 12 percent of U.S. economic activity. This certificate is ideally suited for students in **Allied Health Administration**, those in Exercise and Nutrition Science, Nursing, or any other allied health area. This certificate will prepare those interested in pursuing careers in selling pharmaceutical, medical supplies and home health care equipment, or those interested in pursuing administrative roles in which they would be selling other health care products and services.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

The following information has official approval of the **Department of Marketing** and the **College of Business**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

#### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

## Summary

Code	Title	Hours
Required Courses		9
Electives		6
Total Hours		15

## Required Courses

Code	Title	Hours
SALES:275	Professional Selling	3
SALES:478	Advanced Professional Selling <sup>1</sup>	3
SALES:475	Business Negotiations	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		
BAHA:120	Medical Terminology	6
BAHA:121	Study of Disease Processes	
ANAT:206	Applied Human Anatomy & Physiology I	
or BIOL:200	Human Anatomy & Physiology I	
ANAT:207	Applied Human Anatomy & Physiology II	
or BIOL:202	Human Anatomy & Physiology II	
Total Hours		6

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Marketing, BBA

### Bachelor of Business Administration in Marketing (660100BBA)

More on the Marketing major (<https://www.uakron.edu/cba/undergraduate/majors/marketing.dot>)

Marketing majors must meet all requirements of 1) the General Education Program, 2) the 6 Credit Business Courses, 3) the College of Business Core Program, 4) the required foundation courses within each program, 5) the electives within each program, and 6) the professional experiences component of the program.

## Requirements for Admission

Must be admitted to a 4 year degree granting major.

#### College of Business Undergraduate Programs

<http://www.uakron.edu/business/advising> (<http://www.uakron.edu/business/advising/>)  
(330) 972-7042  
businessadvising@uakron.edu  
College of Business room 260

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Marketing Requirements	34
	Additional Credits for Graduation *	7-6
	<b>Total Hours</b>	<b>120</b>

\* This major requires a minimum of 120 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
HIST:200	Empires of the Ancient World	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
HIST:200	Empires of the Ancient World	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
	<b>Total Hours</b>	<b>34</b>

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
	<b>Total Hours</b>	<b>4</b>

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
	<b>Total Hours</b>	<b>42</b>

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Marketing Requirements

Code	Title	Hours
<b>Foundation Core</b>		
SALES:275	Professional Selling	3
MKTG:335	Marketing Research	3
MKTG:336	Marketing Research Lab	1
MKTG:355	Consumer Behavior	3
MKTG:375	Marketing & Sales Analytics	3
<b>Core Competencies Courses</b>		
MKTG:432	Integrated Marketing Communications <sup>1</sup>	3
MKTG:434	Digital Marketing	3
MKTG:440	Brand Management <sup>1</sup>	3
MKTG:446	Social Media Marketing	3
MKTG:460	B2B Marketing <sup>1</sup>	3

**Professional Courses**

MKTG:499	Marketing Capstone Project <sup>1</sup>	3
MKTG:486	Internship in Marketing <sup>1,2</sup>	1-3
or MKTG:491	Professional Workshops in Marketing	
Total Hours		32-34

<sup>1</sup> Must be admitted to 4 year degree granting major.

<sup>2</sup> Students not taking MKTG:486 must take 3 Professional Workshops in Marketing, as each are 1 credit.

## Graduation Requirements – Review DPR for Status

- 120 Credit Hours
- College of Business residency = Last 15 credits earned in the College of Business
- Overall GPA = 2.3
- Major GPA = 2.0
- Business & Economics GPA = 2.0

## Recommended Sequence

**1st Year**

Fall Semester		Hours
BUSN:110	College of Business Success Seminar	1-3
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:106	Effective Oral Communication	3
SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
Hours		17-19

**Spring Semester**

BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Natural Science Requirement with Lab	4
	Arts Requirement	3
	Arts/Humanities Requirement	3
	Global Diversity Requirement	3
Hours		17

**2nd Year****Fall Semester**

ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
Hours		15

**Spring Semester**

ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
Hours		15

**3rd Year****Fall Semester**

FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
SALES:275	Professional Selling	3
	Complex Issues Requirement	3
Hours		15

**Spring Semester**

MGMT:305	Business Analytics	3
MKTG:335	Marketing Research	1-3
or MKTG:336	or Marketing Research Lab	
MKTG:355	Consumer Behavior	3
MKTG:460	B2B Marketing	3
	Natural Science Requirement	3
Hours		13-15

**4th Year****Fall Semester**

MKTG:375	Marketing & Sales Analytics	3
MKTG:440	Brand Management	3
MKTG:432	Integrated Marketing Communications	3
MKTG:486	Internship in Marketing	3
	Free Elective	1
Hours		13

**Spring Semester**

MKTG:499	Marketing Capstone Project	3
MKTG:446	Social Media Marketing	3
MKTG:434	Digital Marketing	3
MGMT:490	Strategic Management	3
Hours		12
Total Hours		117-121

## Marketing, Minor

### Minor in Marketing (660104M)

This 18 credit minor will provide an introduction into the diverse and dynamic field of marketing by providing the student with additional skills, including insights into marketing research, business to business, consumer behavior, social media and digital marketing. Students are required to take 9 credits of required marketing courses, and then select an additional 9 credits among courses that explore specific areas of interest in marketing.

## Requirements for Admission

Enrollment in a 4 year degree granting major

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College of Business room 260

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Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
MKTG:205	Marketing Principles <sup>2</sup>	3
or COMM:133	Essentials of Marketing Technology	
MKTG:355	Consumer Behavior	3
MKTG:460	B2B Marketing	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select three of the following:</b>		<b>9</b>
MKTG:335	Marketing Research	
MKTG:375	Marketing & Sales Analytics	
MKTG:432	Integrated Marketing Communications <sup>1</sup>	
MKTG:434	Digital Marketing <sup>1</sup>	
MKTG:440	Brand Management <sup>1</sup>	
MKTG:446	Social Media Marketing	
ART:132	Introduction to Design	
ART:189	Production I	
Total Hours		9

<sup>1</sup> Must be admitted to 4 year degree granting major.

<sup>2</sup> Students wishing to take MKTG:205 must have earned 24 credit hours and must take ECON:200 Principles of Microeconomics as a pre/corequisite.

## Professional Selling for Engineering Majors, Certificate

### Certificate in Professional Selling for Engineering Majors (660111C)

This 12-credit **Certificate** in Professional Selling for Engineering majors provides students an opportunity to develop and document an understanding of professional selling skills. The course work will provide additional development of selling and negotiation skills allowing for enhanced opportunities for career advancement. The **combination of technical knowledge and selling skills** is highly sought after by some of

the top national and international firms, providing unique opportunities for employment.

## Requirements for Admission

Enrollment in an engineering major.

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### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

To be granted this certificate, the student must take at least 6 credit hours of 6600 courses in addition to the requirements for any other major, minor, or certificate that has been earned.

## Summary

Code	Title	Hours
Required Courses		9
Electives		3
Total Hours		12

## Required Courses

Code	Title	Hours
SALES:275	Professional Selling	3
SALES:475	Business Negotiations <sup>1</sup>	3
SALES:478	Advanced Professional Selling <sup>1</sup>	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select one of the following:</b>		<b>3</b>
GNE:400	Engineering Management and Leadership	
CIVE:471	Construction Administration	

CHEE:110 & CHEE:210 & CHEE:310	Project Management and Teamwork I and Project Management and Teamwork II and Project Management and Teamwork III	3
Total Hours		3

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Professional Selling, Certificate Certificate in Professional Selling (660103C)

The 15-credit Certificate in Professional Selling is designed for students who are outside the College of Business. This certificate provides the student an opportunity to develop and document an understanding of professional selling skills. Opportunities for further career advancement become available to students who major in communications, sports management, arts and science, and numerous others when they combine their area of study with a sales certificate.

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### College of Business Policies for Certificates:

- Complete all certificate requirements prior to graduation.
- Earn a 2.0 GPA in all certificate coursework.
- Maintain a cumulative 2.0 GPA in all undergraduate coursework.
- Complete all prerequisites for each course.
- Courses may not be taken as pass/fail.
- Complete at least 6 additional credits not needed for any other major, minor, or certificate.
- Earn at least 9 credits at The University of Akron in the College of Business.
- Declare the certificate in the Business Undergraduate Advising Office, College of Business room 260.

To be granted this certificate, the student must take at least 6 credit hours of 6600 courses in addition to the requirements for any other major, minor, or certificate that has been earned.

## Summary

Code	Title	Hours
Required Courses		9
Electives		6
Total Hours		15

## Required Courses

Code	Title	Hours
MKTG:205	Marketing Principles	3
SALES:275	Professional Selling	3
SALES:478	Advanced Professional Selling <sup>1</sup>	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		<b>6</b>
BUS:101		
MKTG:355	Consumer Behavior	
SALES:475	Business Negotiations <sup>1</sup>	
SALES:480	Sales Management <sup>1</sup>	
ENGL:390	Professional Writing I	
CPSC:101	Essentials of Computer Science	
PHIL:362	Business Ethics	
PSYC:380	Industrial/Organizational Psychology	
PSYC:443	Human Resource Management	
GNEN:400	Engineering Management and Leadership	
COMM:345	Advanced Presentational Communication	
COMM:227	Non-Verbal Communication	
COMM:245	Argumentation	
FASH:139	The Fashion & Furnishings Industries	
ECON:100	Introduction to Economics	
Total Hours		6

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Professional Selling, Minor Minor in Professional Selling (660101M)

The Minor in Professional is designed for students that are non-marketing majors, who want to add an additional skill set for career options. Regardless of one's major, developing sales and negotiation skills are likely to help advance one's career. This minor requires an additional **18 credits** that provide students with the tools and skills to pursue a career in professional selling as a **complement to their major area of study**. There is high market demand for students who can combine a deep knowledge in one area/major with the additional skills of professional selling and business negotiations.

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Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

To be granted this minor, the student must complete at least 9 credit hours of 6600 courses in addition to the requirements for any other major, minor, or certificate that has been earned.

## Summary

Code	Title	Hours
Required Courses		12
Electives		6
Total Hours		18

## Required Courses

Code	Title	Hours
MKTG:205	Marketing Principles <sup>2</sup>	3
SALES:275	Professional Selling	3
SALES:475	Business Negotiations <sup>1</sup>	3
SALES:478	Advanced Professional Selling <sup>1</sup>	3
Total Hours		12

## Electives

Code	Title	Hours
<b>Select two of the following:</b>		<b>6</b>
SALES:480	Sales Management <sup>1</sup>	
ENTRE:201	Introduction to Entrepreneurship	
FPL:200	Foundations of Personal Finance	
FPL:417	Retirement Planning <sup>1</sup>	
FIN:343	Investments	
MGMT:302	Organizational Behavior & Leadership Skills	
HRM:341	Human Resource Management	
MGMT:457	International Management <sup>1</sup>	
INTB:421	Foreign Market Entry <sup>1</sup>	
Total Hours		6

<sup>1</sup> Must be admitted to 4-year degree granting major.

<sup>2</sup> ECON:200 Principles of Microeconomics is a pre/corequisite to MKTG:205.

## Sales Management, BBA

### Bachelor of Business Administration in Sales Management (660101BBA)

More on the Sales Management major (<https://www.uakron.edu/cba/undergraduate/majors/sales.dot>)

The University of Akron's Sales Management Program, established in 1994, is the 2nd oldest such program in the United States. The placement rate of our sales students is nearly 100%, with some of the highest starting salaries among business graduates. Graduates are working in diverse sectors including medical device sales, insurance sales, financial services, consumer packaged goods market, industrial equipment, software sales and services, and technical sales. Sales Management Careers are a high growth area both nationally and within the State of Ohio (<http://omj.ohio.gov/OMJResources/State->

BachOpenings.stm). Experts estimate that sales professionals account for 10 percent of U.S. employment, with a projected annual growth of 9%.

With one of the largest collegiate sales training facilities in the country, our sales management program has been recognized nationally and is accredited through the University Sales Center Alliance (<https://www.universitiesalescenteralliance.org/>), a consortium connecting sales faculty to share best practices and expertise. We also offer a minor in Professional Selling and certificate programs in Professional Selling, Sales for Engineering students, and Health Care Selling.

The Sales Program is supported by The Fisher Institute for Professional Selling (p. 691), which houses our nine state-of-the-art sales training lab rooms, permitting students to augment traditional learning approaches with extensive sales and negotiation role playing and feedback. Additional support is offered through our Fisher Executive Advisory Board, giving students excellent access to professional networking, mentoring, internships and career opportunities.

#### College of Business Undergraduate Programs

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Additional Business Requirements	3-4
	College of Business Core	42
	Sales Management Requirements	31
	Additional Credits for Graduation *	10-9
Total Hours		120

\* This major requires a minimum of 120 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
or COMM:106	Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
HIST:200	Empires of the Ancient World	
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:200	Principles of Microeconomics	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
HIST:200	Empires of the Ancient World	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Additional Business Requirements

Code	Title	Hours
<b>General Education Mathematics Requirement</b>		
MATH:145	Algebra for Calculus	4
<b>Required Business Courses</b>		
BUSN:110	College of Business Success Seminar <sup>1</sup>	
BUSN:111	Professional Development Seminar	
<b>Recommended Business Courses</b>		
BUSN:200	Personal Leadership Skills	
Total Hours		4

<sup>1</sup> Only required for new first-year students. Transfer students are excluded from this requirement.

## College of Business Core <sup>1</sup>

Code	Title	Hours
ECON:201	Principles of Macroeconomics <sup>2</sup>	3
or ECON:244	Introduction to Economic Analysis	
BUSN:230	Business Communication	3
ACCT:201	Accounting Principles I	3
ACCT:202	Accounting Principles II	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
MGMT:301	Management: Principles & Concepts	3
MGMT:305	Business Analytics	3
MGMT:490	Strategic Management	3
SCM:330	Principles of Supply Chain and Operations Management	3
MKTG:205	Marketing Principles	3
INTB:205	International Business	3
Total Hours		42

<sup>1</sup> Student must also have a minimum cumulative GPA of 2.0 across the College of Business Core.

<sup>2</sup> Students cannot get credit for both ECON:201 and ECON:244.

## Sales Management Requirements

Code	Title	Hours
<b>Foundation Core</b>		
SALES:275	Professional Selling	3
MKTG:335	Marketing Research	3
MKTG:336	Marketing Research Lab	1
MKTG:355	Consumer Behavior	3
MKTG:375	Marketing & Sales Analytics	3
<b>Core Competencies Courses</b>		
MKTG:460	B2B Marketing <sup>1</sup>	3
SALES:475	Business Negotiations <sup>1</sup>	3
SALES:478	Advanced Professional Selling <sup>1</sup>	3
SALES:480	Sales Management <sup>1</sup>	3
<b>Professional Courses</b>		
SALES:487	Internship in Sales Management <sup>1</sup>	3
or MKTG:491	Professional Workshops in Marketing	
MKTG:499	Marketing Capstone Project <sup>1</sup>	3
Total Hours		31

<sup>1</sup> Must be admitted to 4 year degree granting major.

## Recommended Sequence

1st Year		Hours
Fall Semester		
BUSN:110	College of Business Success Seminar <sup>1</sup>	1
ENGL:111	English Composition I	3
MATH:145	Algebra for Calculus	4
COMM:105	Introduction to Public Speaking	3



SOCIO:100	Introduction to Sociology	3
	Humanities Requirement	3
	Hours	17
<b>Spring Semester</b>		
BUSN:111	Professional Development Seminar	1
ENGL:112	English Composition II	3
	Natural Science Requirement with Lab	4
	Arts Requirement	3
	Arts or Humanities Requirement	3
	Global Diversity Requirement	3
	Hours	17
<b>2nd Year</b>		
<b>Fall Semester</b>		
ECON:200	Principles of Microeconomics	3
ACCT:201	Accounting Principles I	3
ACCT:250	Spreadsheet Modeling & Decision Analysis	3
BLAW:220	Legal & Social Environment of Business	3
MKTG:205	Marketing Principles	3
	Hours	15
<b>Spring Semester</b>		
ECON:201	Principles of Macroeconomics	3
BUSN:230	Business Communication	3
ACCT:202	Accounting Principles II	3
MGMT:301	Management: Principles & Concepts	3
INTB:205	International Business	3
	Hours	15
<b>3rd Year</b>		
<b>Fall Semester</b>		
FIN:301	Principles of Finance	3
MGMT:304	Business Statistics	3
SCM:330	Principles of Supply Chain and Operations Management	3
SALES:275	Professional Selling	3
	Complex Issues Requirement	3
	Hours	15
<b>Spring Semester</b>		
MGMT:305	Business Analytics	3
MKTG:335	Marketing Research	3
MKTG:336	Marketing Research Lab	1
MKTG:355	Consumer Behavior	3
SALES:475	Business Negotiations	3
	Natural Science Requirement	3
	Hours	16
<b>4th Year</b>		
<b>Fall Semester</b>		
MKTG:375	Marketing & Sales Analytics	3
SALES:480	Sales Management	3
MKTG:460	B2B Marketing	3
	Free Electives	3
	Hours	12
<b>Spring Semester</b>		
MGMT:490	Strategic Management	3

MKTG:499	Marketing Capstone Project	3
SALES:478	Advanced Professional Selling	3
SALES:487 or MKTG:491	Internship in Sales Management or Professional Workshops in Marketing	3
	Free Electives	1
	Hours	13
	Total Hours	120

<sup>1</sup> Required for some first year students

<sup>2</sup> Must take three 1-credit hour Professional Workshops in Marketing

## College of Engineering and Polymer Science

The College of Engineering and Polymer Science (CEPS) provides educational opportunities at both the undergraduate and graduate levels for students who wish to pursue careers in engineering, engineering technology, computing, and polymer science. Faculty perform research with the purpose of contributing new knowledge to the fields encompassed by engineering principles. Professional service is in concert with the objectives of the University.

The College's co-operative education program, one of the oldest in the nation, enables student engineers to integrate classroom learning with on-the-job experience while they earn their degrees. Students can alternate semesters of paid employment in their major fields of interest with semesters on campus after they have completed five semesters of study.

## College Admission Requirements

All students who meet the minimum requirements for admittance (<https://www.uakron.edu/admissions/undergraduate/who-are-you/new-freshman/requirements/>) into The University of Akron and intend to pursue a major offered by the College are accepted into the College to work towards the major. Program-specific requirements must be met before taking upper-level coursework for the major; these requirements are based on successful completion of early foundational courses for the major, and are set to ensure that a student is well prepared for success in the major. Some programs require that students achieve certain minimum GPAs, minimum grades in foundational courses, or other early milestones before taking upper-level coursework.

## Academic Standing in the College of Engineering and Polymer Science

A student's term GPA, cumulative GPA, and progress toward degree determine whether a student is in good academic standing in the College.

Evaluation of status is updated at the end-of-term. Students not in good academic standing in the College may be on placed on probation or suspension, or dismissed from the College of Engineering and Polymer Science. Specific details on the process are found at College of Engineering and Polymer Science Academic discipline (probation, suspension, and dismissal) policy (<https://www.uakron.edu/engineering/docs/College%20of%20Engineering%20Academic%20Probation%20and%20Dismissal%20Fall%202018.pdf>).

Students are also subject to University of Akron probation and dismissal policies (p. 25).

Students on College and / or UA academic probation may not register for classes without first consulting their College academic advisor to agree and document an approved group of courses. Students on academic probation, suspension, or dismissal have enrollment holds placed on their account to prevent registration until they have worked with their advisor.

## Requirements for Graduation

- Compliance with University requirements (p. 29)
- Completion of all degree requirements for the specific program, including completion of the appropriate list of courses, completion of a required minimum number of credits, and achievement of required minimum GPAs (both overall and program-specific).
- Recommendation of the student's department

## Accreditation in the College of Engineering and Polymer Science

Engineering is a profession in which knowledge of mathematics and natural sciences, gained by study, experience, and practice, is applied, with judgment, to develop ways to economically utilize the materials and forces of nature for the benefit of mankind. Entrance to the engineering profession is normally through a university undergraduate program in one of the disciplines of engineering and engineering technology.

Accreditation ensures that the graduates of our programs have a solid educational foundation and are ready to enter the profession. More on the importance of accreditation in engineering can be found here (<http://www.abet.org/accreditation/what-is-accreditation/why-abet-accreditation-matters/>).

### Engineering

The College is home to eight undergraduate Bachelor of Science programs accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org>): Aerospace Systems Engineering, Biomedical Engineering, Chemical Engineering, Civil Engineering, Computer Engineering, Corrosion Engineering, Electrical Engineering, and Mechanical Engineering.

### Engineering Technology

The College is home to three undergraduate Bachelor of Science programs accredited by the Engineering Technology Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org>): Construction Engineering Technology, Electrical and Electronic Engineering Technology, and Mechanical Engineering Technology.

### Surveying and Mapping

The College's Associate of Applied Science in Land Surveying and Bachelor of Science in Surveying and Mapping programs are accredited by the Applied and Natural Science Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org>).

## Cooperative Education

The cooperative education program provides for a coordinated sequence of alternating periods of classroom instruction and employment during a five-year program. Students in many of the Engineering and Polymer Science's undergraduate programs may pursue their degree with the cooperative education option, for a nominal five years of study, or without cooperative education, for a nominal four years of study. The exception is Aerospace Systems Engineering; in this program, cooperative education is required.

The cooperative education program simultaneously provides for the development of fundamental principles in the classroom and for their application in practice. The student has the opportunity to find the type of work and organization in which the student can best apply individual ability. The student gains an appreciation of the problems of labor and management by first-hand experience. The student develops mature judgment by coping with everyday problems. The employer of a co-op student has the ability to train and select a student whose abilities and aptitudes can be adapted to the needs of technical staff requirements.

While a student is at work, all rules and regulations prescribed by the employer must be obeyed. In addition, the student is subject to all current labor laws and conditions. The student is considered a full-time student by the University while on industrial assignments.

The University does not guarantee employment, but makes every effort to place a student in the best learning situation that is consistent with the acquisition of sound professional experience.

## Department of Biomedical Engineering

More information on the Department of Biomedical Engineering and the undergraduate programs in Biomedical Engineering is available at:

- department Undergraduate Bulletin page (p. 452)
- department website (<https://www.uakron.edu/engineering/BME/>)

## Department of Chemical, Biomolecular, and Corrosion Engineering

More information on the Department of Chemical, Biomolecular, and Corrosion Engineering and the undergraduate programs in Chemical Engineering and Corrosion Engineering is available at:

- department Undergraduate Bulletin page (p. 460)
- department website (<https://www.uakron.edu/engineering/CBE/>)

## Department of Civil Engineering

More information on the Department of Civil Engineering and the undergraduate programs in Civil Engineering is available at:

- department Undergraduate Bulletin page (p. 477)
- department website (<https://www.uakron.edu/engineering/CE/>)

## Department of Computer Science

More information on the Department of Computer Science and the undergraduate programs in Computer Science is available at:

- department Undergraduate Bulletin page (p. 502)
- department website (<https://www.uakron.edu/computer-science/>)

## Department of Electrical and Computer Engineering

More information on the Department of Electrical and Computer Engineering and the undergraduate programs in Electrical Engineering and Computer Engineering is available at:

- department Undergraduate Bulletin page (p. 525)
- department website (<https://www.uakron.edu/engineering/ECE/>)

## Department of Mechanical Engineering

More information on the Department of Mechanical Engineering and the undergraduate programs in Mechanical Engineering and Aerospace Systems Engineering is available at:

- department Undergraduate Bulletin page (p. 550)
- department website (<https://www.uakron.edu/engineering/ME/>)

## School of Polymer Science and Polymer Engineering

More information on the School of Polymer Science and Polymer Engineering and the undergraduate programs in Polymer Science and Polymer Engineering and is available at:

- school Undergraduate Bulletin page (p. 574)
- school website (<https://www.uakron.edu/polymer/>)
- Cooperative Education, College of Engineering and Polymer Science (p. 451)
- Biomedical Engineering (p. 452)
  - Biomedical Engineering (Biomaterials and Tissue Track), BS (p. 455)
  - Biomedical Engineering (Biomaterials and Tissue Track), Co-op Option, BS (p. 455)
  - Biomedical Engineering (Instrumentation, Signals and Imaging Track), BS (p. 455)
  - Biomedical Engineering (Instrumentation, Signals and Imaging Track), Co-op Option, BS (p. 455)
  - Biomedical Engineering, BS (p. 455)
  - Biomedical Engineering, Co-op Option, BS (p. 460)
- Chemical, Biomolecular, and Corrosion Engineering (p. 460)
  - Biotechnology Specialization, Certificate (p. 463)
  - Chemical Engineering, BS (p. 464)
  - Chemical Engineering, Co-op Option, BS (p. 467)
  - Chemical Engineering/Polymer Engineering, Certificate (p. 470)
  - Corrosion Engineering Technology, AAS (p. 471)
  - Corrosion Engineering, BS (p. 471)
  - Corrosion Engineering, Co-op Option, BS (p. 474)
  - Corrosion Technology, Certificate (p. 477)
- Civil Engineering (p. 477)
  - Civil Engineering, BS (p. 483)
  - Civil Engineering, Co-op Option, BS (p. 487)
  - Construction Engineering Technology, AAS (p. 489)
  - Construction Engineering Technology, BS (p. 490)
  - Construction Estimation, Certificate (p. 493)
  - Construction Field Operations, AAS (p. 493)
  - Construction Management, Certificate (p. 494)
  - Construction Materials Testing, Certificate (p. 495)
  - Geographic and Land Information Systems, Certificate (p. 495)
  - Heavy Construction, Certificate (p. 495)
  - Land Surveying, AAS (p. 496)
  - Residential Building Technology, Certificate (p. 497)
  - Residential Inspection, Certificate (p. 498)
  - Surveying and Mapping, BS (p. 498)

- Surveying for Civil Engineers, Certificate (p. 501)
- Surveying, Certificate (p. 501)
- Computer Science (p. 502)
  - Artificial Intelligence and Machine Learning, Certificate (p. 507)
  - Computer Information System, Programming Option, AAB (p. 507)
  - Computer Information Systems Programming Specialist, Minor (p. 509)
  - Computer Information Systems Programming, Certificate (p. 509)
  - Computer Information Systems, Computer Networking Option, Cisco Track, AAB (p. 510)
  - Computer Information Systems, Cybersecurity Option, BS (p. 512)
  - Computer Information Systems, Networking Option, BS (p. 514)
  - Computer Information Systems, Programming Option, BS (p. 516)
  - Computer Science, Certificate (p. 519)
  - Computer Science, Management, BSCS (p. 519)
  - Computer Science, Minor (p. 522)
  - Computer Science, Systems, BSCS (p. 522)
  - Computer Security, Certificate (p. 524)
  - Computer Security, Minor (p. 525)
- Electrical and Computer Engineering (p. 525)
  - Computer Engineering, BS (p. 530)
  - Computer Engineering, Co-op Option, BS (p. 534)
  - Electrical and Electronic Engineering Technology, AAS (p. 538)
  - Electrical and Electronic Engineering Technology, BS (p. 539)
  - Electrical Engineering, BS (p. 543)
  - Electrical Engineering, Co-op Option, BS (p. 547)
- Mechanical Engineering (p. 550)
  - Advanced Manufacturing Engineering Technology, AAS (p. 556)
  - Aerospace Systems Engineering, BS (p. 558)
  - Automated Manufacturing Engineering Technology, BS (p. 561)
  - Drafting and Computer Drafting, Certificate (p. 563)
  - Mechanical Engineering Technology, AAS (p. 564)
  - Mechanical Engineering Technology, BS (p. 565)
  - Mechanical Engineering, BS (p. 568)
  - Mechanical Engineering, Co-op Option, BS (p. 572)
- Polymer Science and Polymer Engineering (p. 574)
  - Polymer Science and Polymer Engineering, BS (p. 576)
  - Polymer Science and Polymer Engineering, Minor (p. 579)

## Cooperative Education, College of Engineering and Polymer Science

### Certificate in Cooperative Education, College of Engineering and Polymer Science (400001C)

The College of Engineering and Polymer Science's cooperative education program, one of the oldest in the nation, enables students in qualifying majors offered by the College to integrate classroom learning with on-the-job experience while they earn their degrees. Students enrolled in this

certificate program can alternate semesters of paid employment in their major fields of interest with semesters of study towards their Bachelor of Science degree.

Students must earn this certificate at the same time as a Bachelor of Science degree offered by the College of Engineering and Polymer Science. Students are eligible to start the required cooperative education work terms when they have successfully completed the first half of the junior year core classes required for their program.

The following information has official approval of the **College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

## Required Courses

Code	Title	Hours
GNEN:301	Cooperative Education Work Period	0
GNEN:302	Cooperative Education Work Period	0
GNEN:403	Cooperative Education Work Period	0

## Biomedical Engineering

The Department of Biomedical Engineering (<https://www.uakron.edu/engineering/BME/>) offers an undergraduate program leading to the Bachelor of Science in Biomedical Engineering. The department also offers graduate programs leading to a Master of Science in Biomedical Engineering, and an interdisciplinary Doctor of Philosophy in Engineering.

Information specific to the available program options in biomedical engineering is available:

- Biomedical Engineering (Biomaterials and Tissue Track), BS (p. 455)
- Biomedical Engineering (Biomaterials and Tissue Track), Co-op Option, BS (p. 455)
- Biomedical Engineering (Instrumentation, Signals and Imaging Track), BS (p. 455)
- Biomedical Engineering (Instrumentation, Signals and Imaging Track), Co-op Option, BS (p. 455)
- Biomedical Engineering, BS (p. 455)
- Biomedical Engineering, Co-op Option, BS (p. 460)

Biomedical Engineering is a highly interdisciplinary field of engineering which combines a fundamental understanding of engineering principles with an appreciation of the life sciences. Biomedical Engineers are prepared to solve problems in the health care industry and interact equally with other engineers and health care professionals. Students are prepared to embark on careers in research, design and development of medical devices, instrumentation, analysis tools, clinical evaluation methods, systems and processes, and other forms of medical technology.

The development of an in-depth understanding of the fundamentals of engineering is essential and therefore a degree in Biomedical Engineering focuses first on core engineering coursework, followed by advanced applications specific to the field of Biomedical Engineering. To maintain a core understanding of engineering, the program is divided into three

tracks: Biomechanics; Instrumentation, Signals and Imaging; and Biomaterials and Tissue Engineering.

Students in the Department of Biomedical Engineering receive individual advising in their areas of interest. Graduates of the program will be prepared to apply their knowledge of engineering and medicine to design, test and evaluate systems or system components to be used in the health care industry, to design and develop research projects, including the analysis and interpretation of data and the dissemination of results, and to participate in other biomedical engineering problem solving activities. Graduates will also be well prepared to enter graduate study in Biomedical Engineering, Medical School or other professional professionals.

The Biomedical Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org/>). The Biomedical Engineering program identifies program educational objectives that describe what their graduates are expected to attain within a few years of graduation. Accordingly, the educational objectives of the Biomedical Engineering program are to educate biomedical engineers who can:

- be viewed as technically competent at the interface between engineering and medicine as evidenced by:
  - creative and innovative problem solving
  - performance as a contributing team member
  - ethical and professional actions
  - an ability to interface with diverse constituencies
  - a knowledge of intellectual property and federal regulations
- exhibit continual professional development by attendance at conferences, workshops and enrollment in course work at the post baccalaureate level
- exhibit continual professional service as evidenced by:
  - active participation in professional societies
  - service as a mentor
- advance on their chosen career path

The Department of Biomedical Engineering has established the following student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

(A) Applying principles of engineering, biology, human physiology, chemistry, calculus-based physics, mathematics (through differential equations) and statistics

(B) Solving bio/biomedical engineering problems, including those associated with the interaction between living and non-living systems

(C) Analyzing, modeling, designing, and realizing bio/biomedical engineering devices, systems, components, or processes

(D) Making measurements on and interpreting data from living systems

## Biomedical Engineering (BMEN)

### **BMEN:100 Introduction to Biomedical Engineering (1 Credit)**

Pre/Corequisite: MATH 221 or appropriate AP score. Introduction to Biomedical Engineering and resources available on campus for academic and career success. (Formerly 4800:100)

### **BMEN:101 Tools for Biomedical Engineering (2 Credits)**

Pre/Corequisite: MATH 221 or appropriate AP score for Calculus placement. Introduction to logic and problem solving using the Matlab environment; engineering drawing and graphics using Solidworks with specifics emphasis on biomedical engineering problems. (Formerly 4800:101)

### **BMEN:111 Introduction to Biomedical Engineering Design (3 Credits)**

Prerequisite: BMEN 101. Prerequisite or Corequisite: MATH 222. Introduction to the interdisciplinary nature of Biomedical Engineering research and design through the use of lectures, discussions, homework and design projects. (Formerly 4800:111)

### **BMEN:201 Biomedical Engineering Sophomore Seminar (1 Credit)**

Prerequisites: BMEN 101 and sophomore or greater standing. A seminar format to allow students to learn about current research and careers in Biomedical Engineering. Topics in technical communications will also be covered. (Formerly 4800:201)

### **BMEN:220 Biomedical Computing (3 Credits)**

Prerequisites: MATH 223, BMEN 101 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: MATH 335. Programming in Matlab environment to solve engineering problems using built-in and user-defined functions and various modules including signal processing and image processing. Concepts will be illustrated using relevant biomedical engineering examples. (Formerly 4800:220)

### **BMEN:291 Biomedical Engineering Design Principles I (1 Credit)**

Prerequisite: BMEN 101. Corequisite: MATH 222. Introduction to basic BME design principles including: the engineering design process and additive manufacturing for devices. (Formerly 4800:291)

### **BMEN:292 Biomedical Engineering Design Principles II (1 Credit)**

Prerequisite: BMEN 101. Corequisite: MATH 335. Introduction to basic BME design principles including: the engineering design process, medical device regulations/standards and subtractive manufacturing for devices. (Formerly 4800:292)

### **BMEN:300 Biomaterials (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science. Properties of materials used in medicine and their interaction with biological materials will be discussed. Biocompatibility issues and materials properties and characterization will also be discussed. (Formerly 4800:300)

### **BMEN:305 Introduction to Biophysical Measurements (4 Credits)**

Prerequisites: BMEN 101 and [ELEN 231 or ELEN 307] and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: BIOL 202. Biomedical Engineering involves measurement of Physiological processes in living organisms. An understanding of the variety of instruments used and the limitations are introduced. (Formerly 4800:305)

### **BMEN:307 Bioelectronics Lab (1 Credit)**

Prerequisite: Admission to Biomedical Engineering. Pre/Corequisite: ELEN 307. Introduction to circuit principles as applied to biomedical instrumentation including: components, measurement instrumentation, power supplies, and prototype boards. Students will design, build, and troubleshoot basic biomedical circuits, take measurements, and analyze the outputs. (Formerly 4800:307)

### **BMEN:310 Modeling & Simulation of Biomedical Systems (3 Credits)**

Prerequisites: MATH 335, BMEN 220, and admission to an engineering major within the College of Engineering and Polymer Science. Modeling and simulation of physiological systems. (Formerly 4800:310)

### **BMEN:315 Biomechanics & Biomaterials Lab (2 Credits)**

Prerequisite: Admission to Biomedical Engineering. Pre/Corequisites: BMEN 300 and BMEN 365. Laboratory experience that applies concepts and practices in biomechanics and biomaterials. (Formerly 4800:315)

### **BMEN:325 Design of Medical Devices (3 Credits)**

Prerequisites: Junior/senior standing in the College of Engineering and Polymer Science or the College of Arts and Sciences. Design of Medical Devices, design criteria, human factors, patient care and monitoring devices, surgical devices, bench testing and legal liability. (Formerly 4800:325)

### **BMEN:360 Biofluid Mechanics (3 Credits)**

Prerequisites: MATH 335, CHEM 153, PHYS 292, and MECE 203. Introduction to the fundamentals of fluid mechanics and their application to biological, cardiovascular, respiratory and other biofluid systems. (Formerly 4800:360)

### **BMEN:362 Transport Fundamentals for Biomedical Engineering (3 Credits)**

Prerequisite: MATH 335, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. Introductory topics in fluid, heat, and mass transfer including both integral and differential analysis as it applies to biological and biomedical systems. (Formerly 4800:362)

### **BMEN:365 Mechanics for Biological Systems (3 Credits)**

Prerequisites: Admission to Biomedical Engineering and CIVE 201. This course addresses biomechanics, with an emphasis on reviews of statics and introduction to strength of materials that are relevant to biological systems. This course will give you the opportunity to understand how mechanical engineering principles are applied to physiology and physiopathology (medical problems). (Formerly 4800:365)

### **BMEN:370 Biomechanics of Human Movement (3 Credits)**

Prerequisites: BIOL 202 and MECE 203. The application of engineering mechanics and anatomy to study and analyze human movement. Lectures and in-class labs will introduce students to experimental and theoretical techniques. (Formerly 4800:370)

**BMEN:391 Biomedical Engineering Regulatory Process (1 Credit)**

Prerequisite: Admission to Biomedical Engineering and BMEN 291. Pre/Corequisite: BMEN 292. Basic BME design principles including medical device regulations and standards, FDA regulatory processes, and clinical trials. (Formerly 4800:391)

**BMEN:392 BME Design Project Needs Analysis (1 Credit)**

Prerequisites: Admission to Biomedical Engineering and BMEN 391. Establish problem statement/clinical need, research project, and develop proposal and timeline for project. (Formerly 4800:392)

**BMEN:420 Biomedical Signal & Image Processing (3 Credits)**

Prerequisites: CPEN 220 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: BMEN 305. Introduction to the basic problems associated with biological signal and image processing applications, and appropriate approaches to dealing with them. (Formerly 4800:420)

**BMEN:422 Physiological Control Systems (3 Credits)**

Prerequisites: BIOL 202, MATH 335. The basic techniques employed in control theory, systems analysis and model identification as they apply to physiological systems. (Formerly 4800:422)

**BMEN:430 Design of Medical Imaging Systems (3 Credits)**

Prerequisites: BIOL 200, PHYS 292, ELEN 340, ELEN 353, BMEN 305 and admission to an engineering major within the College of Engineering and Polymer Science or permission of instructor. Physical principles and engineering design of medical imaging systems, with emphasis on digital radiography, computed tomography, nuclear medicine, ultrasound and magnetic resonance. (Formerly 4800:430)

**BMEN:435 Image Science (3 Credits)**

Prerequisites: BIOL 200, PHYS 292, ELEN 340 or by permission of instructor. Principles of image science, image performance parameters and image assessment techniques of medical imaging systems, with emphasis on digital radiography, tomographic imaging, ultrasound and magnetic resonance. (Formerly 4800:435)

**BMEN:437 Physics of Medical Imaging (3 Credits)**

Prerequisites: BIOL 200, PHYS 292, ELEN 353, BMEN 305. Physical principles of medical imaging modalities with emphasis on the properties, generation mechanisms and interaction of radiation with matter, physics of the image formation and optimization. (Formerly 4800:437)

**BMEN:440 Advanced Biomaterials (3 Credits)**

Prerequisites: BMEN 300 and admission to an engineering major within the College of Engineering and Polymer Science. The interactions between biomaterials and medical devices will be analyzed with respect to their potential fractionation of biological mechanisms. (Formerly 4800:440)

**BMEN:445 Experimental Techniques in Biomaterials Tissue Engineering (3 Credits)**

Prerequisite: BMEN 440. Laboratory experience that applies engineering concepts and practices to the analysis of biomaterials and tissue engineering. (Formerly 4800:445)

**BMEN:450 Tissue Engineering (3 Credits)**

Prerequisites: BMEN 300, BMEN 365, BMEN 362, and [BMEN 360 or CHEE 321]. This course will explore topics to successfully design tissue engineered devices. For advanced engineering students with a background in materials, mechanics, and transport phenomena. (Formerly 4800:450)

**BMEN:455 Biotransport (3 Credits)**

Prerequisites: BIOL 202, BMEN 220, and [BMEN 362 or CHEE 321]. With the foundations of fluid, heat and mass transfer established, this course focuses on specific biological examples of transport phenomena. (Formerly 4800:455)

**BMEN:460 Experimental Techniques in Biomechanics (3 Credits)**

Prerequisites: BMEN 362, BMEN 365 and admission to an engineering major within the College of Engineering and Polymer Science. Principles of testing and measuring devices commonly used for biomechanics studies. Laboratories for demonstration and hands-on experience. (Formerly 4800:460)

**BMEN:464 Microfluidics for Biomedical Engineering (3 Credits)**

Prerequisites: BMEN 362 or CHEE 321 or BMEN 360. This course will discuss fundamental principles of single and two phase flow of biofluids in microfluidic devices, and present the applications of lab-on-a-chip systems in BME. (Formerly 4800:464)

**BMEN:470 Human Factors Engineering (3 Credits)**

Prerequisite: Admission to an engineering major within the College of Engineering and Polymer Science. Reliability and human error, human capabilities and limitations, crew protection, display systems, controls and controlling actions, interface design principles, risk management, Safety and accident prevention. (Formerly 4800:470)

**BMEN:485 Special Topics in Biomedical Engineering (1-3 Credits)**

Prerequisite: Permission of advisor. Directed individual or group research or study in the student's field of interest. Topic subject to approval of advisor. (Formerly 4800:485)

**BMEN:491 Biomedical Engineering Design I (2 Credits)**

Prerequisites: [BMEN 111 or BMEN 392], BMEN 220, and [{ELEN 307 and BMEN 300 and BMEN 362 and BMEN 365} or {ELEN 340 and ELEN 360 and MECE 203 and BMEN 310}] and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: BMEN 305. The design process will be presented utilizing case studies and detailed biomedical engineering design projects. (Formerly 4800:491)  
**Gen Ed:** - Capstone

**BMEN:492 Biomedical Engineering Design II (2 Credits)**

Prerequisites: BMEN 491 and admission to an engineering major within the College of Engineering and Polymer Science. The design process will be continued utilizing case studies and detailed biomedical engineering design projects. (Formerly 4800:492)

**BMEN:498 Introduction to BME Research (2 Credits)**

Prerequisites: Permission of instructor. Directed individual or group study in research in biomedical engineering. Course is credit/no credit. May not be repeated. (Formerly 4800:498)

**BMEN:499 BME Research Project (1-3 Credits)**

Prerequisites: BMEN 498, permission of instructor. Directed individual or group study in research in biomedical engineering. May be repeated. (Formerly 4800:499)

## **Biomedical Engineering (Biomaterials and Tissue Track), BS**

### **Bachelor of Science in Biomedical Engineering, Biomaterials and Tissues (480006BS)**

This option of the undergraduate program in Biomedical Engineering follows the biomaterials and tissues track and does not include a cooperative education component.

The biomedical engineering program is no longer accepting students into this program track. New students should follow the new curriculum listed under Bachelor of Science in Biomedical Engineering (p. 455) (480001BS).

## **Biomedical Engineering (Biomaterials and Tissue Track), Co-op Option, BS**

### **Bachelor of Science in Biomedical Engineering, Biomaterials and Tissues with Co-op (480007BS)**

This option of the undergraduate program in Biomedical Engineering follows the biomaterials and tissues track and includes a cooperative education component.

The biomedical engineering program is no longer accepting students into this program track. New students should follow the new curriculum listed under Bachelor of Science in Biomedical Engineering (p. 455) (480001BS).

## **Biomedical Engineering (Instrumentation, Signals and Imaging Track), BS**

### **Bachelor of Science in Biomedical Engineering, Instrumentation, Signals, and Imaging (480004BS)**

This option of the undergraduate program in Biomedical Engineering follows the instrumentation, signals and imaging track and does not include a cooperative education component.

The biomedical engineering program is no longer accepting students into this program track. New students should follow the new curriculum listed under Bachelor of Science in Biomedical Engineering (p. 455) (480001BS).

## **Biomedical Engineering (Instrumentation, Signals and Imaging Track), Co-op Option, BS**

### **Bachelor of Science in Biomedical Engineering, Instrumentation, Signals, and Imaging with Co-op (480005BS)**

This option of the undergraduate program in Biomedical Engineering follows the instrumentation, signals and imaging track and includes a cooperative education component.

The biomedical engineering program is no longer accepting students into this program track. New students should follow the new curriculum listed under Bachelor of Science in Biomedical Engineering (p. 455) (480001BS).

## **Biomedical Engineering, BS**

### **Bachelor of Science in Biomedical Engineering (480001BS)**

Biomedical Engineering is a highly interdisciplinary field of engineering which combines a fundamental understanding of engineering principles with an appreciation of the life sciences. Biomedical Engineers are prepared to solve problems in the health care industry and interact equally with other engineers and health care professionals. Students are prepared to embark on careers in research, design and development of medical devices, instrumentation, analysis tools, clinical evaluation methods, systems and processes, and other forms of medical technology.

The development of an in-depth understanding of the fundamentals of engineering is essential and therefore a degree in Biomedical Engineering focuses first on core engineering coursework, followed by advanced applications specific to the field of Biomedical Engineering. To maintain a core understanding of engineering, the program is divided into three tracks: Biomechanics; Instrumentation, Signals and Imaging; and Biomaterials and Tissue Engineering.

Students in the Department of Biomedical Engineering receive individual advising in their areas of interest. Graduates of the program will be prepared to apply their knowledge of engineering and medicine to design, test and evaluate systems or system components to be used in the health care industry, to design and develop research projects, including the analysis and interpretation of data and the dissemination of results, and to participate in other biomedical engineering problem solving activities. Graduates will also be well prepared to enter graduate study in Biomedical Engineering, Medical School or other professional professionals.

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- be viewed as technically competent at the interface between engineering and medicine as evidenced by:

- creative and innovative problem solving
- performance as a contributing team member
- ethical and professional actions
- an ability to interface with diverse constituencies
- a knowledge of intellectual property and federal regulations
- exhibit continual professional development by attendance at conferences, workshops and enrollment in course work at the post baccalaureate level
- exhibit continual professional service as evidenced by:
  - active participation in professional societies
  - service as a mentor
- advance on their chosen career path

The Department of Biomedical Engineering has established the following student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
  - (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
  - (3) an ability to communicate effectively with a range of audiences
  - (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
  - (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
  - (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
  - (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies
- (A) Applying principles of engineering, biology, human physiology, chemistry, calculus-based physics, mathematics (through differential equations) and statistics
- (B) Solving bio/biomedical engineering problems, including those associated with the interaction between living and non-living systems
- (C) Analyzing, modeling, designing, and realizing bio/biomedical engineering devices, systems, components, or processes
- (D) Making measurements on and interpreting data from living systems

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program

curriculum before they gain approval to take classes in the third year of the curriculum and beyond.

## Cooperative Education

The Bachelor of Science in Biomedical Engineering can be combined with the Cooperative Education, College of Engineering and Polymer Science (p. 451) certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Biomedical Engineering can be earned without the certificate, with a nominal four-year plan of study.

The following information has official approval of the **Department of Biomedical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	21
	Math, Chemistry, and Physics	32
	Statistics	4
	Biology	12
	Ethics	3
	Engineering Core	9
	Biomedical Engineering	34
	Technical Electives	15
	<b>Total Hours</b>	<b>130</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	



**Diversity**

Domestic Diversity

Global Diversity

**Integrated and Applied Learning***Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

**General Education**

Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

**Math, Chemistry, and Physics**

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		32

**Statistics**

Code	Title	Hours
STAT:461	Applied Statistics	4
Total Hours		4

**Biology**

Code	Title	Hours
BIOL:111	Principles of Biology I	4
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
Total Hours		12

**Ethics**

Code	Title	Hours
PHIL:120	Introduction to Ethics <sup>1</sup>	3
or PHIL:361	Biomedical Ethics	
Total Hours		3

<sup>1</sup> Students should be aware that PHIL:120 can be used towards the Humanities requirement for General Education; students choosing to take PHIL:361 may need additional Humanities credits.

**Engineering Core**

Code	Title	Hours
CIVE:201	Statics	3
ELEN:307	Basic Electrical Engineering	4
MECE:305	Thermal Science	2-3
or MECE:300	Thermodynamics I	
Total Hours		9-10

**Biomedical Engineering**

Code	Title	Hours
BMEN:100	Introduction to Biomedical Engineering	1
BMEN:101	Tools for Biomedical Engineering	2
BMEN:201	Biomedical Engineering Sophomore Seminar	1
BMEN:220	Biomedical Computing	3
BMEN:291	Biomedical Engineering Design Principles I	1
BMEN:292	Biomedical Engineering Design Principles II	1
BMEN:300	Biomaterials	3
BMEN:305	Introduction to Biophysical Measurements	4
BMEN:307	Bioelectronics Lab	1
BMEN:310	Modeling & Simulation of Biomedical Systems	3
BMEN:315	Biomechanics & Biomaterials Lab	2
BMEN:362	Transport Fundamentals for Biomedical Engineering	3
BMEN:365	Mechanics for Biological Systems	3
BMEN:391	Biomedical Engineering Regulatory Process	1
BMEN:392	BME Design Project Needs Analysis	1
BMEN:491	Biomedical Engineering Design I	2
BMEN:492	Biomedical Engineering Design II	2
Total Hours		34

**BME Technical Electives**

Code	Title	Hours
<b>Biomedical Electives</b>		<b>6</b>
6 credits of Biomedical Engineering at the 300-400 level		
<b>Non Biomedical Electives</b>		<b>6</b>
6 credits of Engineering, Math, Biology, Chemistry or Physics at the 300-400 level		
<b>Engineering Electives</b>		<b>3</b>
3 credits of Engineering at the 200-400 level		
Total Hours		15

Biomedical Engineering electives provide the opportunity for students to personalize their degree based on their interests within biomedical engineering.

**Recommended Schedule with Cooperative Education**

This plan of study shows the recommended schedule for students who are also earning the "Cooperative Education, College of Engineering

and Polymer Science" certificate. Together, the Bachelor of Science and certificate require a five-year plan of study. The program recommends that students earn this certificate.

**1st Year**

Fall Semester		Hours
BMEN:100	Introduction to Biomedical Engineering	1
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
BIOL:111	Principles of Biology I	4
ENGL:111	English Composition I <sup>1</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
Hours		16

**Spring Semester**

BMEN:101	Tools for Biomedical Engineering	2
CHEM:153	Principles of Chemistry II <sup>1</sup>	3
CHEM:154	Qualitative Analysis	2
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
	Second Writing Course <sup>1,2</sup>	3
Hours		18

**2nd Year**

Fall Semester		Hours
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
BMEN:201	Biomedical Engineering Sophomore Seminar	1
BMEN:291	Biomedical Engineering Design Principles I	1
Hours		17

**Spring Semester**

BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
MATH:335	Introduction to Ordinary Differential Equations	3
BMEN:220	Biomedical Computing	3
BMEN:300	Biomaterials	3
BMEN:292	Biomedical Engineering Design Principles II	1
Hours		14

**Summer Semester**

GNEN:300	Cooperative Education Work Period <sup>possible</sup>	0
Hours		0

**3rd Year**

Fall Semester		Hours
PHIL:120 or PHIL:361	Introduction to Ethics <sup>5</sup> or Biomedical Ethics	3
ELEN:307	Basic Electrical Engineering	4
BMEN:307	Bioelectronics Lab	1
MECE:305 or MECE:300	Thermal Science or Thermodynamics I	2-3
BMEN:365	Mechanics for Biological Systems	3

BMEN:391	Biomedical Engineering Regulatory Process	1
Hours		14-15

**Spring Semester**

GNEN:301	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

**Summer Semester**

STAT:461	Applied Statistics	4
	BME Technical Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
Hours		10

**4th Year**

Fall Semester		Hours
GNEN:302	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

**Spring Semester**

BMEN:305	Introduction to Biophysical Measurements	4
BMEN:310	Modeling & Simulation of Biomedical Systems	3
BMEN:315	Biomechanics & Biomaterials Lab	2
BMEN:362	Transport Fundamentals for Biomedical Engineering	3
BMEN:392	BME Design Project Needs Analysis	1
Hours		13

**Summer Semester**

GNEN:403	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

**5th Year**

Fall Semester		Hours
BMEN:491	Biomedical Engineering Design I	2
	BME Technical Elective <sup>4</sup>	3
	BME Technical Elective <sup>4</sup>	3
	BME Technical Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
Hours		14

**Spring Semester**

BMEN:492	Biomedical Engineering Design II	2
	BME Technical Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
Hours		14
Total Hours		130-131

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

<sup>3</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

<sup>4</sup> BME Technical Electives are provided for students' to focus and specialize in areas of interest to their career path. The electives must not be otherwise required for the degree or substantial equivalents to requirements and are distributed as follows:

- Biomedical Electives: 6 credits of Biomedical Engineering at the 300-400 level
- Non Biomedical Electives: 6 credits of Engineering, Math, Biology, Chemistry or Physics at the 300-400 level, and
- Engineering Electives: 3 credits of Engineering at the 200-400 level

<sup>5</sup> Students should be aware that PHIL:120 can be used towards the Humanities requirement for General Education; students choosing to take PHIL:361 may need additional Humanities credits.

## Recommended Schedule without Cooperative Education

If a student chooses not to earn the Cooperative Education certificate, the following four-year plan of study is used.

### 1st Year

Fall Semester		Hours
BMEN:100	Introduction to Biomedical Engineering	1
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
BIOL:111	Principles of Biology I	4
ENGL:111	English Composition I <sup>1</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
Hours		16

### Spring Semester

BMEN:101	Tools for Biomedical Engineering	2
CHEM:153	Principles of Chemistry II <sup>1</sup>	3
CHEM:154	Qualitative Analysis	2
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
	Second Writing Course <sup>1,2</sup>	3
Hours		18

### 2nd Year

#### Fall Semester

BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
BMEN:201	Biomedical Engineering Sophomore Seminar	1
BMEN:291	Biomedical Engineering Design Principles I	1
Hours		17

#### Spring Semester

BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1

MATH:335	Introduction to Ordinary Differential Equations	3
BMEN:220	Biomedical Computing	3
BMEN:300	Biomaterials	3
BMEN:292	Biomedical Engineering Design Principles II	1
Hours		14

### 3rd Year

#### Fall Semester

PHIL:120	Introduction to Ethics <sup>5</sup>	3
ELEN:307	Basic Electrical Engineering	4
BMEN:307	Bioelectronics Lab	1
MECE:305	Thermal Science	2-3
	or MECE:300 or Thermodynamics I	
BMEN:365	Mechanics for Biological Systems	3
BMEN:391	Biomedical Engineering Regulatory Process	1
Hours		14-15

#### Spring Semester

BMEN:305	Introduction to Biophysical Measurements	4
BMEN:310	Modeling & Simulation of Biomedical Systems	3
BMEN:315	Biomechanics & Biomaterials Lab	2
BMEN:362	Transport Fundamentals for Biomedical Engineering	3
BMEN:392	BME Design Project Needs Analysis	1
Hours		13

#### Summer Semester

STAT:461	Applied Statistics	4
	BME Technical Elective <sup>4</sup>	3
	General Education or Honors Distribution	3
Hours		10

### 4th Year

#### Fall Semester

BMEN:491	Biomedical Engineering Design I	2
	BME Technical Elective <sup>4</sup>	3
	BME Technical Elective <sup>4</sup>	3
	BME Technical Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
Hours		14

#### Spring Semester

BMEN:492	Biomedical Engineering Design II	2
	BME Technical Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
Hours		14
Total Hours		130-131

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

- <sup>3</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.
- <sup>4</sup> BME Technical Electives are provided for students' to focus and specialize in areas of interest to their career path. The electives must not be otherwise required for the degree or substantial equivalents to requirements and are distributed as follows:
- Biomedical Electives: 6 credits of Biomedical Engineering at the 300-400 level
  - Non Biomedical Electives: 6 credits of Engineering, Math, Biology, Chemistry or Physics at the 300-400 level, and
  - Engineering Electives: 3 credits of Engineering at the 200-400 level
- <sup>5</sup> Students should be aware that PHIL:120 can be used towards the Humanities requirement for General Education; students choosing to take PHIL:361 may need additional Humanities credits.

## Biomedical Engineering, Co-op Option, BS

### Bachelor of Science in Biomedical Engineering, Biomechanics with Co-op (480003BS)

This option of the undergraduate program in Biomedical Engineering includes a cooperative education component.

The biomedical engineering program is no longer accepting students into this program track. New students should follow the curriculum listed under Bachelor of Science in Biomedical Engineering (p. 455) (480001BS). Students adding the cooperative education experience to their studies should earn the Certificate in Cooperative Education, College of Engineering and Polymer Science (p. 451) (400001C) alongside their Bachelor of Science.

## Chemical, Biomolecular, and Corrosion Engineering

The Department of Chemical, Biomolecular, and Corrosion Engineering (<https://www.uakron.edu/engineering/CBE/>) offers undergraduate programs in leading to the Bachelor of Science in Chemical Engineering and the Bachelor of Science in Corrosion Engineering. Chemical engineering undergraduates may earn a polymer engineering specialization certificate or a biotechnology certificate. The department also offers an Associate of Applied Science in Corrosion Engineering Technology and a certificate in corrosion technology. The department offers graduate programs leading to a Master of Science in Chemical Engineering, including a five-year BS/MS program in Chemical Engineering. Students can also earn an interdisciplinary Doctor of Philosophy in Engineering.

**Mission:** The goal of the Chemical, Biomolecular, and Corrosion Engineering Department is to prepare graduates with the necessary skills so that they can contribute to a highly technical global society through their professional careers. The philosophy of the Chemical, Biomolecular, and Corrosion Engineering faculty is to provide a strong theoretical

foundation supported by practical applications of that knowledge, which is consistent with the mission of The University of Akron.

The Chemical, Biomolecular, and Corrosion Engineering Department provides a unique opportunity to master teamwork and design project management skills. Teams of freshmen through senior Chemical and Corrosion Engineering undergraduates work on a realistic engineering design project. Besides experience with a range of current engineering topics, the projects allow students to develop teamwork, communication, presentation, project management and information technology skills.

Information specific to the available program options in chemical engineering and corrosion engineering is available:

- Biotechnology Specialization, Certificate (p. 463)
- Chemical Engineering, BS (p. 464)
- Chemical Engineering, Co-op Option, BS (p. 467)
- Chemical Engineering/Polymer Engineering, Certificate (p. 470)
- Corrosion Engineering Technology, AAS (p. 471)
- Corrosion Engineering, BS (p. 471)
- Corrosion Engineering, Co-op Option, BS (p. 474)
- Corrosion Technology, Certificate (p. 477)

## Corrosion Engineering Technology (CRET)

**CRET:120 Corrosion Engineering Technology Fundamentals I (3 Credits)**  
Pre/Corequisite: CHEM 101 or [CHEM 151 and CHEM 152]. Introduction to corrosion engineering topics including economic impacts of corrosion, types of corrosion, their recognition and prevention, parameters affecting corrosion, and methods of corrosion control. (Formerly 2850:120)

**CRET:121 Corrosion Engineering Technology Fundamentals II (4 Credits)**  
Prerequisite: CRET 120. Basic understanding of steps and methods required for combating corrosion including proper design, material selection, protective coating application, inhibitors use, and cathodic and anodic protection. (Formerly 2850:121)

**CRET:220 Strategies for Corrosion Prevention (4 Credits)**  
Prerequisite: CRET 121. Pre/Corequisite: EEET 120. This course focuses on the control of corrosion by applying coatings and cathodic protection. (Formerly 2850:220)

**CRET:221 Corrosion Engineering Technology Projects (4 Credits)**  
Prerequisite: CRET 220. Course focuses on corrosion/failure analysis and corrosion mitigation, and discussion of regulatory compliance and resource acquisition and allocation. (Formerly 2850:221)

## Chemical Engineering (CHEE)

**CHEE:101 Tools for Chemical Engineering (2 Credits)**  
Corequisites: CHEE 110 and MATH 149. Introduction to Chemical Engineering. Basic concepts of engineering practice. Introduction to professional level software including process simulation, control design, spreadsheets, mathematical computation, and process flow graphics. (Formerly 4200:101)

**CHEE:110 Project Management and Teamwork I (1 Credit)**  
Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:110)

**CHEE:121 Chemical Engineering Computations (2 Credits)**

Prerequisites: CHEE 101 or CORE 101. Computer programming language, flowcharting, introductory simulation and introductory numerical analysis. (Formerly 4200:121)

**CHEE:194 Chemical Engineering Design I (1 Credit)**

Prerequisite: CHEE 101 and permission. Individual or group project under faculty supervision. Introduction to chemical engineering processes and modern design technology. Written report is required. (Formerly 4200:194)

**CHEE:200 Material & Energy Balances (4 Credits)**

Prerequisites: [CHEE 121 or CORE 105], CHEM 151, and MATH 221. Introduction to material and energy balance calculations applied to solution of chemical engineering problems. (Formerly 4200:200)

**CHEE:210 Project Management and Teamwork II (1 Credit)**

Prerequisite: CHEE 110. Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:210)

**CHEE:220 Introduction to Thermodynamic Processes (3 Credits)**

Prerequisites: MATH 223 and [CHEE 200 or CORE 200]. First and Second Laws of Thermodynamics, work, entropy, heat engines and refrigeration cycles, equations of state, departure functions and reaction equilibria. (Formerly 4200:220)

**CHEE:225 Equilibrium Thermodynamics (4 Credits)**

Prerequisites: [CHEE 200 or CORE 200] and MATH 223. Second law of thermodynamics, entropy, applications, comprehensive treatment of pure and mixed fluids. Phase and chemical equilibrium, flow processes, power production and refrigeration processes covered. (Formerly 4200:225)

**CHEE:294 Chemical Engineering Design II (1-2 Credits)**

Prerequisites: CHEE 121, CHEE 200 and permission. Supervised individual or group design project. Analysis of multi-unit process using simulation and/or experimental techniques. Written report and oral presentation required. (Formerly 4200:294)

**CHEE:305 Materials Science (2 Credits)**

Prerequisite: CHEM 153. Corequisite: PHYS 292. Structure, processing and properties of metals, ceramics and polymers. Special topics, such as composites, corrosion and wear. (Formerly 4200:305)

**CHEE:308 Introduction to Bio-based Polymers (3 Credits)**

Prerequisites: CHEM 263 and junior or greater standing. This course introduces basic concepts of polymer science: building blocks, structure, elementary reactions and polymerization mechanisms, through seven natural polymers. (Formerly 4200:308)

**CHEE:310 Project Management and Teamwork III (1 Credit)**

Prerequisites: CHEE 210 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 300 or CHEE 353. Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:310)

**CHEE:320 Phase Equilibrium Thermodynamics (3 Credits)**

Prerequisites: CHEE 220 and admission to an engineering major within the College of Engineering and Polymer Science. Thermodynamics of mixtures, excess properties, activity coefficients, mixture fugacity, mixture phase equilibrium and thermodynamic consistency. (Formerly 4200:320)

**CHEE:321 Transport Phenomena (3 Credits)**

Prerequisites: [CHEE 200 or CORE 200], MATH 335 and admission to an engineering major within the College of Engineering and Polymer Science. Constitutive equations for momentum, energy and mass transfer. Development of microscopic and macroscopic momentum, energy and mass transfer equations for binary systems. Analogy and dimensionless analysis. Problems and applications in unit operations of chemical engineering. (Formerly 4200:321)

**CHEE:330 Chemical Reaction Engineering (3 Credits)**

Prerequisites: MATH 335, CHEE 220 and admission to an engineering major within the College of Engineering and Polymer Science. Nonequilibrium processes including chemical reaction mechanisms, rate equations and ideal reactor design applied to homogeneous and heterogeneous systems. (Formerly 4200:330)

**CHEE:341 Process Economics (2 Credits)**

Prerequisites: [CHEE 200 or CORE 200] and admission to an engineering major within the College of Engineering and Polymer Science. Theory and application of engineering economy to multi-unit processes. Cost estimation, time value of money, profit analysis, decision making and introduction to project management. (Formerly 4200:341)

**CHEE:351 Fluid & Thermal Operations (3 Credits)**

Prerequisite: CHEE 321 and admission to the College of Engineering and Polymer Science. Applications of fluid mechanics including piping, pumping, compression, metering, agitation and separations. Applications of heat transfer by conduction, convection and radiation to design of process equipment. (Formerly 4200:351)

**CHEE:353 Mass Transfer Operations (3 Credits)**

Prerequisites: [CHEE 220 or CHEE 225] and [C- or above in CHEE 200 or CORE 200] and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CHEE 320. Theory and design of staged operations including distillation, extraction, absorption. Theory and design of continuous mass transfer devices. (Formerly 4200:353)

**CHEE:360 Chemical Engineering Laboratory (3 Credits)**

Prerequisites: CHEE 353. Corequisites: CHEE 330, and CHEE 351. Comprehensive experiments in combined heat and mass transfer, thermodynamics, and reaction kinetics. Data collection and analysis. Comprehensive reports in various formats. (Formerly 4200:360)

**CHEE:394 Chemical Engineering Design III (1-3 Credits)**

Prerequisites: CHEE 351 and permission. Supervised individual or group design project. Develop, evaluate and design feasible solutions to an open-ended problem pertinent to chemical engineering. Written report and oral presentation required. (Formerly 4200:394)

**CHEE:408 Polymer Engineering (3 Credits)**

Prerequisite: Senior standing or higher or permission. Commercial polymerization, materials selection and property modification, polymer processing, applied rheology and classification of polymer industry. (Formerly 4200:408)

**CHEE:410 Project Management and Teamwork IV (1 Credit)**

Prerequisites: CHEE 310 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisites: CHEE 441 or CORE 440. Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:410)

**CHEE:421 Fundamentals of Multiphase Transport Phenomena (3 Credits)**

Prerequisite: CHEE 321 or equivalent, and instructor permission. Major topics to be covered: Intraphase and interphase transport phenomena, Transport phenomena in multiphase fluids, Transport in Porous Media, Transport in Gas/liquid pipe flows, Computational Fluid Dynamics of multiphase systems, and Case studies. (Formerly 4200:421)

**CHEE:435 Process Analysis & Control (3 Credits)**

Prerequisites: CHEE 330, CHEE 353 and admission to an engineering major within the College of Engineering and Polymer Science. Response of simple chemical processes and design of appropriate control systems. (Formerly 4200:435)

**CHEE:438 Energy Integration (3 Credits)**

Prerequisite: CHEE 351. This course uses Pinch Design formalism to present the core energy integration tools for energy and area targeting, and tools for integration of reactors, distillation columns, and heat pumps. (Formerly 4200:438)

**CHEE:441 Process Design I (3 Credits)**

Prerequisites: CHEE 330, CHEE 341, CHEE 351, CHEE 353 and admission to an engineering major within the College of Engineering and Polymer Science. Application of chemical engineering fundamentals to the design of a multi-unit process. Emphasis on use of process simulators. Advanced equipment design, oral and written communication skills and teamwork. (Formerly 4200:441)

**CHEE:442 Process Design II (3 Credits)**

Prerequisites: CHEE 441 and admission to an engineering major within the College of Engineering and Polymer Science. Teaches methods of process conceptualization, preliminary optimization. Specific topics include: chemical process design methodology, design heuristics, energy integration, and process safety review. (Formerly 4200:442)

**Gen Ed:** - Capstone

**CHEE:450 Chemical Product Design and Development (3 Credits)**

Prerequisite: Senior standing or permission. Introduction to the strategies and processes used to design and development new chemical products from the idea stage through manufacturing. (Formerly 4200:450)

**CHEE:461 Solids Processing (3 Credits)**

Prerequisites: CHEE 321 and CHEE 353 or permission. Comprehensive problems in sedimentation, fluidization, drying and other operations involving mechanics of particulate solids in liquid and gas continua. (Formerly 4200:461)

**CHEE:462 Industrial Enzyme Technology (3 Credits)**

Prerequisites: CHEE 330 and CHEE 351. Application of chemical engineering to biological processes involving enzymes and their industrial applications. Special emphasis given to the kinetics, control, design, and process economics aspects. (Formerly 4200:462)

**CHEE:463 Pollution Control (3 Credits)**

Prerequisite: CHEE 353 or permission. Air and water pollution sources and problems. Engineering aspects and methodology. (Formerly 4200:463)

**CHEE:466 Digitized Data & Simulation (3 Credits)**

Prerequisite: Permission. Data acquisition and analysis by digital devices, digital control applications and design. (Formerly 4200:466)

**CHEE:470 Electrochemical Engineering (3 Credits)**

Prerequisites: CHEE 321 and CHEE 330. Chemical engineering principles as applied to the study of electrode processes and to the design of electrochemical reactors. Topics include electrochemical thermodynamics, cell polarizations, Faraday's Laws, electrode kinetics, transport processes in electrochemical systems, current distributions, reactor design, experimental methods, commercial processes, and batteries and fuel cells. (Formerly 4200:470)

**CHEE:471 Fuel Engineering (3 Credits)**

Prerequisite: CHEE 330 or permission of instructor. Topics related to clean liquid and solid fuels technology. Special emphasis given to design, system analysis, environmental impacts, and novel technologies. (Formerly 4200:471)

**CHEE:472 Separation Processes in Biochemical Engineering (3 Credits)**

Introduction to the separation and purification techniques pertinent to bioprocesses, with emphasis on engineering considerations for large scale operations. (Formerly 4200:472)

**CHEE:473 Bioreactor Design (3 Credits)**

Prerequisite: CHEE 330 or instructor consent. Design, analysis, and scale-up of bioreactors for various biological processes. (Formerly 4200:473)

**CHEE:488 Chemical Processes Design (3 Credits)**

Prerequisite: Permission of instructor or senior standing. Process design and analysis of emerging chemical technologies. Case studies, such as in-situ processing, alternative fuels, bioremediation, and engineering materials manufacture. (Formerly 4200:488)

**CHEE:494 Design Project (3 Credits)**

Prerequisite: Permission or senior standing. Individual design project pertinent to chemical engineering under faculty supervision. Written report and oral presentation required. (Formerly 4200:494)

**CHEE:496 Topics in Chemical Engineering (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Topics selected from new and developing areas of chemical engineering, such as electrochemical engineering, coal and synthetic fuels processing, bioengineering, simultaneous heat and mass transfer phenomena and new separation techniques. (Formerly 4200:496)

**CHEE:497 Honors Project (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Individual creative project pertinent to chemical engineering culminating in undergraduate thesis, supervised by faculty member of the department. (Formerly 4200:497)

**CHEE:499 Research Project: Chemical Engineering (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Individual research project pertinent to chemical engineering under faculty supervision. Report required. (Formerly 4200:499)

## Corrosion Engineering (CORE)

**CORE:101 Tools for Corrosion Engineering (2 Credits)**

Corequisites: MATH 149 and CHEE 110. Introduction to corrosion engineering. Basic concepts of engineering practice. Introduction to professional level software needed for later studies. (Formerly 4250:101)

**CORE:105 Corrosion Engineering Computations (2 Credits)**

Prerequisite: CHEE 101 or CORE 101. Corequisite: CHEM 153. Structure, processing and properties of metals, ceramics, and polymers. (Formerly 4250:105)

**CORE:194 Design Project 1 (1 Credit)**

Prerequisite: Permission. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:194)

**CORE:200 Material and Energy Balances for Corrosion Engineers (4 Credits)**

Prerequisites: [CHEE 121 or CORE 105], CHEM 151 and MATH 221. Introduction to material and energy balance calculations applied to the solution of chemical processing and corrosion engineering problems. (Formerly 4250:200)

**CORE:294 Design Project 2 (1-2 Credits)**

Prerequisite: Sophomore standing. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:294)

**CORE:300 Fundamentals of Aqueous Corrosion (3 Credits)**

Prerequisites: CHEE 220 and [CHEE 305 or MECE 380] and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 301. Fundamentals of aqueous corrosion will cover corrosion tendencies, processes and rates at low temperature. An in-depth understanding of the aqueous corrosion mechanisms, materials performance, and the effects of stress will be covered. (Formerly 4250:300)

**CORE:301 Aqueous Corrosion Lab I (1 Credit)**

Prerequisites: CHEM 154 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 300. Laboratory exercises will reinforce the fundamentals of aqueous corrosion. (Formerly 4250:301)

**CORE:305 Aqueous Corrosion Prevention (3 Credits)**

Prerequisites: CHEM 263, CORE 300 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisites: CORE 306, CIVE 202 and ELEN 307. This course presents a functional approach to controlling and preventing aqueous corrosion based upon engineering methodologies to proper materials selection, organic coatings, chemical inhibitors, and electrochemical protection. Applications in specific industries will be covered. (Formerly 4250:305)

**CORE:306 Aqueous Corrosion Lab II (1 Credit)**

Prerequisites: CORE 301 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 305. Laboratory exercises will reinforce the fundamentals of aqueous corrosion. (Formerly 4250:306)

**CORE:310 Fundamentals of Dry Corrosion (3 Credits)**

Prerequisites: CORE 300 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 311. Fundamentals of dry/hot corrosion will cover corrosion tendencies, processes and rates at high temperature. An in-depth understanding of the high temperature corrosion mechanisms, materials performance, and the effects of stress will be covered. (Formerly 4250:310)

**CORE:311 High Temperature Corrosion Lab (1 Credit)**

Prerequisites: CORE 306 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 310. Laboratory exercises will reinforce the fundamentals of high temperature corrosion. (Formerly 4250:311)

**CORE:340 Corrosion Prevention (Dry) (3 Credits)**

Prerequisite: CORE 305. Corequisite: CORE 310, MECE 380. This course presents a functional approach to controlling and preventing dry corrosion based upon engineering methodologies to proper materials selection, inorganic coatings, and passivation. Applications in specific industries will be covered. (Formerly 4250:340)

**CORE:394 Design Project 3 (1-3 Credits)**

Prerequisite: Junior standing. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:394)

**CORE:440 Corrosion Engineering Design I (3 Credits)**

Prerequisites: CORE 305 and admission to an engineering major within the College of Engineering and Polymer Science. This course applies the lessons learned in corrosion prevention and laboratory courses to corrosion case studies. Solutions to existing corrosion problems will be developed based on the analysis of test data. (Formerly 4250:440)

**CORE:441 Corrosion Engineering Design II (3 Credits)**

Prerequisites: CORE 440 and admission to an engineering major within the College of Engineering and Polymer Science. This course focuses on understanding the financial, political, social and health implications of corrosion, corrosion mitigation, and corrosion prevention. Solutions to existing corrosion problems will be developed based on economic, political, social, and health issues. The course will also cover methodologies for preserving assets and reducing operation costs. (Formerly 4250:441)

**Gen Ed:** - Capstone

**CORE:450 Engineering Principles of Corrosion (3 Credits)**

Prerequisite: Junior or greater standing or permission. Engineering principles for understanding corrosion and corrosion mitigation methods. Case studies of corrosion management to reliability and reduce corrosion. Multidisciplinary engineering enrollment encouraged. (Formerly 4250:450)

**CORE:494 Design Project 4 (1-3 Credits)**

Prerequisite: Senior Standing. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:494)

**CORE:496 Special Topics in Corrosion Engineering (1-3 Credits)**

Prerequisite: Permission. (May be repeated for a total of six credits). Topics selected from new and developing areas of corrosion engineering. (Formerly 4250:496)

**CORE:497 Honors Project (1-3 Credits)**

Prerequisites: Senior standing in Honors College or permission. Individual research or design project in Corrosion Engineering that is supervised by a faculty member. Conducted in accordance with the Honors College requirements. (Formerly 4250:497)

## Biotechnology Specialization, Certificate

### Certificate in Biotechnology Specialization (420008C)

Chemical Engineering students may choose to specialize in biotechnology. The goal of this program is to allow engineering students with an interest in chemistry and biotechnology to develop suitable preparation for careers or graduate study in biotechnology or the medical fields without reducing their potential for careers in traditional chemical engineering. Students will have ample opportunity to work with researchers in biotechnology through their engineering and design electives.

The following information has official approval of the **Department of Chemical, Biomolecular and Corrosion Engineering** and the **College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Biotechnology Specialization" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		15
Electives		6
Total Hours		21

## Required Courses

Code	Title	Hours
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
BIOL:311 or BIOL:331	Cell & Molecular Biology Microbiology	4
CHEM:401	Biochemistry Lecture I	3
Total Hours		15

## Electives

Code	Title	Hours
<b>Chemical and Biomolecular Engineering Electives</b>		
Select three credits of the following:		3
CHEE:194	Chemical Engineering Design I	
CHEE:294	Chemical Engineering Design II	
CHEE:394	Chemical Engineering Design III	
CHEE:472	Separation Processes in Biochemical Engineering	
CHEE:473	Bioreactor Design	
CHEE:494	Design Project	
CHEE:496	Topics in Chemical Engineering	
CHEE:497	Honors Project	
CHEE:499	Research Project: Chemical Engineering	
BMEN:360	Biofluid Mechanics	
BMEN:300	Biomaterials	
<b>Design Electives</b>		
Select three credits of the following:		3
CHEE:294	Chemical Engineering Design II	
CHEE:394	Chemical Engineering Design III	
CHEE:473	Bioreactor Design	
CHEE:494	Design Project	
CHEE:496	Topics in Chemical Engineering	
CHEE:497	Honors Project	
CHEE:499	Research Project: Chemical Engineering	
CIVE:482	Special Projects: Civil Engineering	
BMEN:485	Special Topics in Biomedical Engineering	
Total Hours		6

# Chemical Engineering, BS

## Bachelor of Science in Chemical Engineering (420000BS)

This option of the undergraduate program in Chemical Engineering does not include a cooperative education component.

The Chemical Engineering program helps students develop intellectual capacity and the ability to apply the principles of transport phenomena, thermodynamics, and chemical reaction kinetics to the creative resolution of technological problems.

All engineers are trained in the application of mechanics, materials, economics, systems, and controls. Chemical engineers, however, apply chemical principles to design, evaluate, build, and operate systems capable of converting inexpensive raw materials into marketable products via chemical reactions, biological processes, and physical separations.

Graduates of the Chemical Engineering program find career opportunities in the chemical process industries, usually involving polymer production, petroleum refining, environmental remediation, materials research and development, process design and development, and process operations and control. In addition, chemical engineers are increasingly in demand in areas such as biotechnology, food production, and solids processing. Critical thinking skills developed throughout the curriculum enable chemical engineers to succeed in other fields including medicine, patent law, and international business.

The Chemical Engineering program maintains a balance between theory and practice to prepare students for careers in a highly technical global society. The curriculum stresses the integration of mathematics, science, and chemical engineering fundamentals throughout the program. At each level of the program, from freshman through seniors, students have the opportunity to gain experience in a wide range of emerging technologies through laboratory courses and design or research electives. Exciting work is performed in biocompatible polymeric materials, biological cellular and enzymatic processes, nanocomposite materials, chemical sensing, computational molecular science, microscale separations, green chemistry, and novel catalytic reactions. Students are also encouraged to gain important practical experience through the optional cooperative education program.

The Chemical Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org/>). The program educational objectives (PEOs) for the Chemical Engineering program are that, within a few years after graduation, our Chemical Engineering graduates:

- apply their technical proficiency to make positive contributions as chemical engineers or any other career path they choose.
- continue life-long learning through professional activities and training, the pursuit of higher educational degrees, and individual professional improvement.
- will contribute to the professional practice of their chosen field through effective communication, leadership, teamwork and service, while exhibiting high ethical and professional standards.

The Chemical Engineering program has specified these student outcomes to be achieved by the time of graduation:



- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

The Chemical Engineering program also meets the curriculum requirements specified by the American Institute of Chemical Engineers, which are that the curriculum must provide a thorough grounding in the basic sciences including chemistry, physics, and/or biology, with some content at an advanced level, as appropriate to the objectives of the program. The curriculum must include the engineering application of these basic sciences to the design, analysis, and control of chemical, physical, and/or biological processes, including the hazards associated with these processes.

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

## Cooperative Education

The Bachelor of Science in Chemical Engineering can be combined with the Cooperative Education, College of Engineering and Polymer Science (p. 451) certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Chemical Engineering can be earned without the certificate, with a nominal four-year plan of study.

## Accelerated BS/MS program

The department offers B.S. Chemical Engineering students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Chemical Engineering with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of the **Department of Chemical, Biomolecular, and Corrosion Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		29
	Natural Science	34
	Advanced Chemistry	11
	Engineering Core	11
	Chemical Engineering	42
	Electives	9
Total Hours		136

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours		34

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
MATH:xxx	Advanced Math Elective	2
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		34

## Advanced Chemistry

Code	Title	Hours
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:314	Physical Chemistry Lecture II	3
Total Hours		11

## Engineering Core

Code	Title	Hours
CHEE:121	Chemical Engineering Computations	2
CHEE:305	Materials Science	2
CIVE:201	Statics	3
ELEN:307	Basic Electrical Engineering	4
Total Hours		11

## Chemical Engineering

Code	Title	Hours
CHEE:101	Tools for Chemical Engineering	2
CHEE:110	Project Management and Teamwork I	1
CHEE:200	Material & Energy Balances	4
CHEE:210	Project Management and Teamwork II	1
CHEE:220	Introduction to Thermodynamic Processes	3
CHEE:310	Project Management and Teamwork III	1
CHEE:320	Phase Equilibrium Thermodynamics	3
CHEE:321	Transport Phenomena	3
CHEE:330	Chemical Reaction Engineering	3
CHEE:341	Process Economics	2
CHEE:351	Fluid & Thermal Operations	3
CHEE:353	Mass Transfer Operations	3
CHEE:360	Chemical Engineering Laboratory	3
CHEE:410	Project Management and Teamwork IV	1
CHEE:435	Process Analysis & Control	3
CHEE:441	Process Design I	3

CHEE:442	Process Design II	3
Total Hours		42

## Electives

Code	Title	Hours
	Advanced Chemistry Elective	3
	Engineering Design Elective	3
	Engineering Science Elective	3
Total Hours		9

## Recommended Sequence

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CHEE:101	Tools for Chemical Engineering	2
CHEE:110	Project Management and Teamwork I	1
Hours		14

### Spring Semester

CHEM:153	Principles of Chemistry II <sup>1</sup>	3
CHEM:154	Qualitative Analysis	2
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
CHEE:121	Chemical Engineering Computations	2
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honor Distribution <sup>4</sup>	3
Hours		17

### 2nd Year

#### Fall Semester

CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CHEE:200	Material & Energy Balances	4
CHEE:210	Project Management and Teamwork II	1
Hours		18

#### Spring Semester

CHEM:264	Organic Chemistry Lecture II	3
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CHEE:220	Introduction to Thermodynamic Processes	3
CIVE:201	Statics <sup>1</sup>	3
Hours		16

### 3rd Year

#### Fall Semester

ECON:244	Introduction to Economic Analysis	3
CHEE:310	Project Management and Teamwork III	1
CHEE:320	Phase Equilibrium Thermodynamics	3
CHEE:321	Transport Phenomena	3
CHEE:341	Process Economics	2

CHEE:353	Mass Transfer Operations	3
	Advanced Math Elective	2
	Hours	17
<b>Spring Semester</b>		
CHEE:305	Materials Science	2
CHEE:330	Chemical Reaction Engineering	3
CHEE:351	Fluid & Thermal Operations	3
CHEE:360	Chemical Engineering Laboratory	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	14
<b>Summer Semester</b>		
CHEM:314	Physical Chemistry Lecture II	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	6
<b>4th Year</b>		
<b>Fall Semester</b>		
CHEE:410	Project Management and Teamwork IV	1
CHEE:435	Process Analysis & Control	3
CHEE:441	Process Design I	3
	General Education or Honors Distribution <sup>4</sup>	3
	Advanced Chemistry Elective	3
	Hours	13
<b>Spring Semester</b>		
CHEE:442	Process Design II	3
ELEN:307	Basic Electrical Engineering	4
CHEE:xxx	Chemical Engineering Elective <sup>5</sup>	3
CHEE:xxx	Chemical Engineering Design Elective <sup>5</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	General Electives	5
	Hours	21
	Total Hours	136

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> The Chemical and Biomolecular Engineering Department recommends that ENGL:111 English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.

<sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

<sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

<sup>5</sup> Honors students must take the Honors Project, which may count as a Chemical Engineering Elective or Chemical Engineering Design Elective. Consult your academic advisor.

## Chemical Engineering, Co-op Option, BS

### Bachelor of Science in Chemical Engineering with Co-op (420005BS)

This option of the undergraduate program in Chemical Engineering includes a cooperative education component.

The Chemical Engineering program helps students develop intellectual capacity and the ability to apply the principles of transport phenomena, thermodynamics, and chemical reaction kinetics to the creative resolution of technological problems.

All engineers are trained in the application of mechanics, materials, economics, systems, and controls. Chemical engineers, however, apply chemical principles to design, evaluate, build, and operate systems capable of converting inexpensive raw materials into marketable products via chemical reactions, biological processes, and physical separations.

Graduates of the Chemical Engineering program find career opportunities in the chemical process industries, usually involving polymer production, petroleum refining, environmental remediation, materials research and development, process design and development, and process operations and control. In addition, chemical engineers are increasingly in demand in areas such as biotechnology, food production, and solids processing. Critical thinking skills developed throughout the curriculum enable chemical engineers to succeed in other fields including medicine, patent law, and international business.

The Chemical Engineering program maintains a balance between theory and practice to prepare students for careers in a highly technical global society. The curriculum stresses the integration of mathematics, science, and chemical engineering fundamentals throughout the program. At each level of the program, from freshman through seniors, students have the opportunity to gain experience in a wide range of emerging technologies through laboratory courses and design or research electives. Exciting work is performed in biocompatible polymeric materials, biological cellular and enzymatic processes, nanocomposite materials, chemical sensing, computational molecular science, microscale separations, green chemistry, and novel catalytic reactions. Students are also encouraged to gain important practical experience through the optional cooperative education program.

The Chemical Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org/>). The program educational objectives (PEOs) for the Chemical Engineering program are that, within a few years after graduation, our Chemical Engineering graduates:

- apply their technical proficiency to make positive contributions as chemical engineers or any other career path they choose.
- continue life-long learning through professional activities and training, the pursuit of higher educational degrees, and individual professional improvement.
- will contribute to the professional practice of their chosen field through effective communication, leadership, teamwork and service, while exhibiting high ethical and professional standards.

The Chemical Engineering program has specified these student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

The Chemical Engineering program also meets the curriculum requirements specified by the American Institute of Chemical Engineers, which are that the curriculum must provide a thorough grounding in the basic sciences including chemistry, physics, and/or biology, with some content at an advanced level, as appropriate to the objectives of the program. The curriculum must include the engineering application of these basic sciences to the design, analysis, and control of chemical, physical, and/or biological processes, including the hazards associated with these processes.

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

## Accelerated BS/MS program

The department offers B.S. Chemical Engineering students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Chemical Engineering with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of the **Department of Chemical, Biomolecular, and Corrosion Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class*

*availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements

### Summary

Code	Title	Hours
General Education Requirements (p. 31) *		29
Natural Science		34
Advanced Chemistry		11
Engineering Core		11
Chemical Engineering		42
Electives		9
Total Hours		136

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
MATH:xxx	Advanced Math Elective	2
MATH:221	Analytic Geometry-Calculus I	4

MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		34

## Advanced Chemistry

Code	Title	Hours
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:314	Physical Chemistry Lecture II	3
Total Hours		11

## Engineering Core

Code	Title	Hours
CHEE:121	Chemical Engineering Computations	2
CHEE:305	Materials Science	2
CIVE:201	Statics	3
ELEN:307	Basic Electrical Engineering	4
Total Hours		11

## Chemical Engineering

Code	Title	Hours
CHEE:101	Tools for Chemical Engineering	2
CHEE:110	Project Management and Teamwork I	1
CHEE:200	Material & Energy Balances	4
CHEE:210	Project Management and Teamwork II	1
CHEE:220	Introduction to Thermodynamic Processes	3
CHEE:310	Project Management and Teamwork III	1
CHEE:320	Phase Equilibrium Thermodynamics	3
CHEE:321	Transport Phenomena	3
CHEE:330	Chemical Reaction Engineering	3
CHEE:341	Process Economics	2
CHEE:351	Fluid & Thermal Operations	3
CHEE:353	Mass Transfer Operations	3
CHEE:360	Chemical Engineering Laboratory	3
CHEE:410	Project Management and Teamwork IV	1
CHEE:435	Process Analysis & Control	3
CHEE:441	Process Design I	3
CHEE:442	Process Design II	3
Total Hours		42

## Electives

Code	Title	Hours
	Advanced Chemistry Elective	3
	Engineering Design Elective	3
	Engineering Science Elective	3
Total Hours		9

## Recommended Sequence

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CHEE:101	Tools for Chemical Engineering	2
CHEE:110	Project Management and Teamwork I	1
Hours		14

### Spring Semester

CHEM:153	Principles of Chemistry II <sup>1</sup>	3
CHEM:154	Qualitative Analysis	2
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
CHEE:121	Chemical Engineering Computations	2
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honor Distribution <sup>4</sup>	3
Hours		17

### 2nd Year

Fall Semester		Hours
CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CHEE:200	Material & Energy Balances	4
CHEE:210	Project Management and Teamwork II	1
Hours		18

### Spring Semester

CHEM:264	Organic Chemistry Lecture II	3
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CHEE:220	Introduction to Thermodynamic Processes	3
CIVE:201	Statics <sup>1</sup>	3
Hours		16

### Summer Semester

GREN:300	Cooperative Education Work Period <sup>possible</sup>	0
Hours		0

### 3rd Year

Fall Semester		Hours
ECON:244	Introduction to Economic Analysis	3
CHEE:310	Project Management and Teamwork III	1
CHEE:320	Phase Equilibrium Thermodynamics	3
CHEE:321	Transport Phenomena	3
CHEE:341	Process Economics	2
CHEE:353	Mass Transfer Operations	3
	Advanced Math Elective	2
Hours		17

### Spring Semester

GREN:301	Cooperative Education Work Period	0
Hours		0

**Summer Semester**

CHEM:314	Physical Chemistry Lecture II	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	6

**4th Year****Fall Semester**

GLEN:302	Cooperative Education Work Period	0
	Hours	0

**Spring Semester**

CHEE:305	Materials Science	2
CHEE:330	Chemical Reaction Engineering	3
CHEE:351	Fluid & Thermal Operations	3
CHEE:360	Chemical Engineering Laboratory	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	14

**Summer Semester**

GLEN:403	Cooperative Education Work Period	0
	Hours	0

**5th Year****Fall Semester**

CHEE:410	Project Management and Teamwork IV	1
CHEE:435	Process Analysis & Control	3
CHEE:441	Process Design I	3
	General Education or Honors Distribution <sup>4</sup>	3
	Advanced Chemistry Elective	3
	Hours	13

**Spring Semester**

CHEE:442	Process Design II	3
ELEN:307	Basic Electrical Engineering	4
CHEE:xxx	Chemical Engineering Elective <sup>5</sup>	3
CHEE:xxx	Chemical Engineering Design Elective <sup>5</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	General Electives	5
	Hours	21
	Total Hours	136

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> The Chemical and Biomolecular Engineering Department recommends that ENGL:111 English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.

<sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

<sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

<sup>5</sup> Honors students must take the Honors Project, which may count as a Chemical Engineering Elective or Chemical Engineering Design Elective. Consult your academic advisor.

## Chemical Engineering/Polymer Engineering, Certificate

### Certificate in Chemical Engineering/Polymer Engineering (420006C)

Chemical Engineering students may choose to earn a polymer engineering specialization certificate. The goal of this program is to allow engineering students with an interest in chemistry and polymer materials to develop suitable preparation for careers or graduate study in polymer science or polymer engineering without reducing their potential for careers in traditional chemical engineering. Students will have ample opportunity to work with researchers in polymers through their engineering and design electives.

The following information has official approval of the **Department of Chemical, Biomolecular, and Corrosion Engineering** and the **College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Chemical Engineering / Polymer Engineering" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

Code	Title	Hours
	Core Requirements	3
	Electives	6
	Total Hours	9

### Core Requirements

Code	Title	Hours
CHEE:408	Polymer Engineering	3
	Total Hours	3

### Electives

Code	Title	Hours
<b>Polymer Engineering Electives</b>		
Select 3 credits of the following:		3
CHEE:461	Solids Processing	
PLYE:425	Introduction to Blending & Compounding Polymers	
<b>Polymer Science Electives</b>		
Select 3 credits of the following:		3
PLYS:401	Introduction to Elastomers	
PLYS:402	Introduction to Plastics	
PLYS:403	Polymer Chemistry	
PLYS:407	Polymer Science	
	Total Hours	6

# Corrosion Engineering Technology, AAS

## Associate of Applied Science in Corrosion Engineering Technology (285000AAS)

More on the Corrosion Engineering Technology program (<https://www.uakron.edu/engineering/cbe/undergraduate-programs/corrosion-engineering-tech/>)

### Program Information

The AAS in Corrosion Engineering Technology program includes classroom and laboratory experiences which prepare students for careers in the corrosion industry and other allied industries.

### Career Information

A person with an associate degree in Corrosion Engineering Technology can find employment in any industry that is impacted by material degradation. Examples include the oil and gas, chemical processing, and construction industries.

The program prepares the student to evaluate corrosion of materials in the field and apply strategies for mitigating corrosion. In completing the AAS degree in Corrosion Engineering Technology, the student will also be prepared to pass certification tests in Basic Corrosion and Cathodic Protection offered by NACE.

The following information has official approval of **The Department of Chemical, Biomolecular and Corrosion Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR), which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

1st Year		Hours
Fall Semester		
ENGL:111	English Composition I	3
MATH:153	Technical Mathematics III	2
COMM:263	Professional Communications and Presentations	3
CRET:120	Corrosion Engineering Technology Fundamentals I	3
CHEM:101	Chemistry for Everyone	4
SOWK:230	Human Relations	3
Hours		18
Spring Semester		
MATH:154	Technical Mathematics IV	3
CRET:121	Corrosion Engineering Technology Fundamentals II	4
EEET:120	Circuit Fundamentals	4
ENGL:222	Technical Report Writing	3
Hours		14

### 2nd Year

#### Fall Semester

CRET:220	Strategies for Corrosion Prevention	4
MCET:142	Introduction to Material Technology	3
COET:125	Statics	3
PHYS:261	Physics for Life Sciences I	4
SOWK:244 or PAFS:256	Death & Dying or Diversity in American Society	3
Hours		17

#### Spring Semester

CRET:221	Corrosion Engineering Technology Projects	4
AMET:241	Introduction to Quality Assurance	3
ECON:100	Introduction to Economics	3
COET:225	Strength of Materials	3
Hours		13
Total Hours		62

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

## Corrosion Engineering, BS Bachelor of Science in Corrosion Engineering (425000BS)

This option of the undergraduate program in Corrosion Engineering does not include a cooperative education component.

The Corrosion Engineering program is a comprehensive engineering program that incorporates the fundamental and applied aspects of aqueous and high temperature corrosion. The program incorporates laboratory and project management experiences throughout the curriculum. Students will be prepared to enter into the engineering workforce and make an impact in industries including Refining, Transportation Systems, Water Distribution, Energy, Food and Chemical Processing and others.

The purpose of the Corrosion Engineering curriculum is to prepare students for professional careers in the practical application of chemistry, mathematics, and physics to develop economic ways of controlling the degradation of materials.

The Corrosion Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org/>). The program educational objectives (PEOs) for the Corrosion Engineering program are that, within a few years after graduation, our Corrosion Engineering graduates:

- make positive technical contributions to their business, profession, and/or community
- continue to develop their educational background and/or professional preparation
- enhance the quality of their work as practicing engineers by communicating well, working effectively on (multidisciplinary) teams, participating in service activities, and acting ethically in their professional duties

The Corrosion Engineering program has specified these student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

## Cooperative Education

The Bachelor of Science in Corrosion Engineering can be combined with the Cooperative Education, College of Engineering and Polymer Science (p. 451) certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Corrosion Engineering can be earned without the certificate, with a nominal four-year plan of study.

The following information has official approval of the **Department of Chemical, Biomolecular, and Corrosion Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		29
Natural Science		32
Advanced Chemistry		11
Engineering Core		11
Corrosion Engineering		37
Electives		15
Total Hours		135

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4



PHYS:292	Elementary Classical Physics II	4
Total Hours		32

## Advanced Chemistry

Code	Title	Hours
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:424	Analytical Chemistry II	3
Total Hours		11

## Engineering Core

Code	Title	Hours
CHEE:305	Materials Science	2
CORE:105	Corrosion Engineering Computations	2
CIVE:201	Statics	3
ELEN:307	Basic Electrical Engineering	4
Total Hours		11

## Corrosion Engineering

Code	Title	Hours
CHEE:110	Project Management and Teamwork I	1
CHEE:210	Project Management and Teamwork II	1
CHEE:220	Introduction to Thermodynamic Processes	3
CHEE:310	Project Management and Teamwork III	1
CHEE:321	Transport Phenomena	3
CHEE:410	Project Management and Teamwork IV	1
CORE:101	Tools for Corrosion Engineering	2
CORE:200	Material and Energy Balances for Corrosion Engineers	4
CORE:300	Fundamentals of Aqueous Corrosion	3
CORE:301	Aqueous Corrosion Lab I	1
CORE:305	Aqueous Corrosion Prevention	3
CORE:306	Aqueous Corrosion Lab II	1
CORE:310	Fundamentals of Dry Corrosion	3
CORE:311	High Temperature Corrosion Lab	1
CORE:440	Corrosion Engineering Design I	3
CORE:441	Corrosion Engineering Design II	3
CIVE:202	Introduction to Mechanics of Solids	3
Total Hours		37

## Electives

Code	Title	Hours
	Chem/Bio Elective	3
	Corrosion Engineering Elective	6
	Corrosion Engineering Design Elective	6
Total Hours		15

## Recommended Sequence

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CHEE:110	Project Management and Teamwork I	1
CORE:101	Tools for Corrosion Engineering	2
Hours		14

### Spring Semester

CHEM:153	Principles of Chemistry II <sup>1</sup>	3
CHEM:154	Qualitative Analysis	2
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
CORE:105	Corrosion Engineering Computations	2
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honor Distribution <sup>4</sup>	3
Hours		17

### 2nd Year

#### Fall Semester

CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CHEE:210	Project Management and Teamwork II	1
CORE:200	Material and Energy Balances for Corrosion Engineers	4
Hours		18

#### Spring Semester

CHEM:264	Organic Chemistry Lecture II	3
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CHEE:220	Introduction to Thermodynamic Processes	3
CHEE:305	Materials Science	2
Hours		15

### 3rd Year

#### Fall Semester

CHEE:310	Project Management and Teamwork III	1
CHEE:321	Transport Phenomena	3
CORE:300	Fundamentals of Aqueous Corrosion	3
CORE:301	Aqueous Corrosion Lab I	1
CIVE:201	Statics	3
ELEN:307	Basic Electrical Engineering	4
Hours		15

#### Spring Semester

	Biology or Chemistry Elective	3
CHEM:424	Analytical Chemistry II	3
ECON:244	Introduction to Economic Analysis	3
CORE:305	Aqueous Corrosion Prevention	3
CORE:306	Aqueous Corrosion Lab II	1

General Education or Honors Distribution <sup>4</sup>	3
Hours	16
<b>Summer Semester</b>	
CIVE:202 Introduction to Mechanics of Solids	3
General Education or Honors Distribution <sup>4</sup>	3
Hours	6
<b>4th Year</b>	
<b>Fall Semester</b>	
CHEE:410 Project Management and Teamwork IV	1
CORE:310 Fundamentals of Dry Corrosion	3
CORE:311 High Temperature Corrosion Lab	1
CORE:440 Corrosion Engineering Design I	3
CORE:xxx Corrosion Engineering Elective	3
General Education or Honors Distribution <sup>4</sup>	3
Hours	14
<b>Spring Semester</b>	
CORE:441 Corrosion Engineering Design II	3
CORE:xxx Corrosion Engineering Elective	3
Engineering Design Elective	3
Engineering Design Elective	3
General Education or Honors Distribution <sup>4</sup>	3
General Electives	5
Hours	20
Total Hours	135

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> The Chemical and Biomolecular Engineering Department recommends that ENGL:111 English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.

<sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

<sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

## Corrosion Engineering, Co-op Option, BS

### Bachelor of Science in Corrosion Engineering with Co-op (425005BS)

This option of the undergraduate program in Corrosion Engineering includes a cooperative education component.

The Corrosion Engineering program is a comprehensive engineering program that incorporates the fundamental and applied aspects of aqueous and high temperature corrosion. The program incorporates laboratory and project management experiences throughout the curriculum. Students will be prepared to enter into the engineering workforce and make an impact in industries including Refining,

Transportation Systems, Water Distribution, Energy, Food and Chemical Processing and others.

The purpose of the Corrosion Engineering curriculum is to prepare students for professional careers in the practical application of chemistry, mathematics, and physics to develop economic ways of controlling the degradation of materials.

The Corrosion Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org/>). The program educational objectives (PEOs) for the Corrosion Engineering program are that, within a few years after graduation, our Corrosion Engineering graduates:

- make positive technical contributions to their business, profession, and/or community
- continue to develop their educational background and/or professional preparation
- enhance the quality of their work as practicing engineers by communicating well, working effectively on (multidisciplinary) teams, participating in service activities, and acting ethically in their professional duties

The Corrosion Engineering program has specified these student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

### Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

The following information has official approval of the **Department of Chemical, Biomolecular, and Corrosion Engineering** and **The College of**

**Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	29
	Natural Science	32
	Advanced Chemistry	11
	Engineering Core	11
	Corrosion Engineering	37
	Electives	15
	<b>Total Hours</b>	<b>135</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
	<b>Total Hours</b>	<b>32</b>

## Advanced Chemistry

Code	Title	Hours
CHEM:263	Organic Chemistry Lecture I	3
CHEM:264	Organic Chemistry Lecture II	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:424	Analytical Chemistry II	3
	<b>Total Hours</b>	<b>11</b>

## Engineering Core

Code	Title	Hours
CHEE:305	Materials Science	2
CORE:105	Corrosion Engineering Computations	2
CIVE:201	Statics	3
ELEN:307	Basic Electrical Engineering	4
	<b>Total Hours</b>	<b>11</b>

## Corrosion Engineering

Code	Title	Hours
CHEE:110	Project Management and Teamwork I	1
CHEE:210	Project Management and Teamwork II	1
CHEE:220	Introduction to Thermodynamic Processes	3
CHEE:310	Project Management and Teamwork III	1
CHEE:321	Transport Phenomena	3
CHEE:410	Project Management and Teamwork IV	1
CORE:101	Tools for Corrosion Engineering	2
CORE:200	Material and Energy Balances for Corrosion Engineers	4
CORE:300	Fundamentals of Aqueous Corrosion	3
CORE:301	Aqueous Corrosion Lab I	1
CORE:305	Aqueous Corrosion Prevention	3
CORE:306	Aqueous Corrosion Lab II	1
CORE:310	Fundamentals of Dry Corrosion	3
CORE:311	High Temperature Corrosion Lab	1
CORE:440	Corrosion Engineering Design I	3
CORE:441	Corrosion Engineering Design II	3

CIVE:202	Introduction to Mechanics of Solids	3
Total Hours		37

## Electives

Code	Title	Hours
	Chem/Bio Elective	3
	Corrosion Engineering Elective	6
	Corrosion Engineering Design Elective	6
Total Hours		15

## Recommended Sequence

### 1st Year

Fall Semester	Hours
CHEM:151 Principles of Chemistry I <sup>1</sup>	3
CHEM:152 Principles of Chemistry I Laboratory	1
ENGL:111 English Composition I <sup>1,2</sup>	3
MATH:221 Analytic Geometry-Calculus I <sup>1</sup>	4
CORE:101 Tools for Corrosion Engineering	2
CHEE:110 Project Management and Teamwork I	1
Hours	14

### Spring Semester

CHEM:153 Principles of Chemistry II <sup>1</sup>	3
CHEM:154 Qualitative Analysis	2
MATH:222 Analytic Geometry-Calculus II <sup>1</sup>	4
CHEE:121 Chemical Engineering Computations	2
Second Writing Course <sup>1,3</sup>	3
General Education or Honor Distribution <sup>4</sup>	3
Hours	17

### 2nd Year

#### Fall Semester

CHEM:263 Organic Chemistry Lecture I	3
CHEM:265 Organic Chemistry Laboratory I	2
MATH:223 Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291 Elementary Classical Physics I <sup>1</sup>	4
CHEE:210 Project Management and Teamwork II	1
CORE:200 Material and Energy Balances for Corrosion Engineers	4
Hours	18

#### Spring Semester

CHEM:264 Organic Chemistry Lecture II	3
MATH:335 Introduction to Ordinary Differential Equations	3
PHYS:292 Elementary Classical Physics II <sup>1</sup>	4
CHEE:220 Introduction to Thermodynamic Processes	3
CHEE:305 Materials Science	2
Hours	15

#### Summer Semester

GGEN:300 Cooperative Education Work Period (possible)	0
Hours	0

### 3rd Year

#### Fall Semester

CHEE:310 Project Management and Teamwork III	1
CHEE:321 Transport Phenomena	3
CORE:300 Fundamentals of Aqueous Corrosion	3
CORE:301 Aqueous Corrosion Lab I	1
CIVE:201 Statics	3
ELEN:307 Basic Electrical Engineering	4
Hours	15

#### Spring Semester

GGEN:301 Cooperative Education Work Period	0
Hours	0

#### Summer Semester

CIVE:202 Introduction to Mechanics of Solids	3
General Education or Honors Distribution <sup>4</sup>	3
Hours	6

### 4th Year

#### Fall Semester

GGEN:302 Cooperative Education Work Period	0
Hours	0

#### Spring Semester

CHEM:424 Analytical Chemistry II	3
ECON:244 Introduction to Economic Analysis	3
CORE:305 Aqueous Corrosion Prevention	3
CORE:306 Aqueous Corrosion Lab II	1
BIOL:xxx/ CHEM:xxx Biology or Chemistry Elective	3
General Education or Honors Distribution <sup>4</sup>	3
Hours	16

#### Summer Semester

GGEN:403 Cooperative Education Work Period	0
Hours	0

### 5th Year

#### Fall Semester

CHEE:410 Project Management and Teamwork IV	1
CORE:310 Fundamentals of Dry Corrosion	3
CORE:311 High Temperature Corrosion Lab	1
CORE:440 Corrosion Engineering Design I	3
CORE:xxx Corrosion Engineering Elective	3
General Education or Honors Distribution <sup>4</sup>	3
Hours	14

#### Spring Semester

CORE:441 Corrosion Engineering Design II	3
CORE:xxx Corrosion Engineering Elective	3
Engineering Design Elective	3
Engineering Design Elective	3
General Education or Honors Distribution <sup>4</sup>	3
General Electives	5
Hours	20
Total Hours	135

- <sup>1</sup> Honors sections may be available; check the schedule of classes.
- <sup>2</sup> The Chemical and Biomolecular Engineering Department recommends that ENGL:111 English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.
- <sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
- <sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

EEET:120	Circuit Fundamentals
or EEET:122	AC Circuits
or EEET:370	Survey of Electronics I
or ELEN:307	Basic Electrical Engineering
or ELEN:231	Circuits I

#### Materials/Devices

MCET:142	Introduction to Material Technology
or EEET:225	Applications of Electronic Devices
or CHEE:305	Materials Science
or CIVE:202	Introduction to Mechanics of Solids
or MECE:380	Introduction to Materials Science and Engineering
or BMEN:300	Biomaterials

## Corrosion Technology, Certificate

### Certificate in Corrosion Technology (285000C)

The objective of this certificate is to enhance student knowledge of the fundamentals of corrosion technology, including forms of corrosion, types of corrosive environments, material selection, corrosion control, testing, monitoring and treatment.

The following information has official approval of **The Department of Chemical, Biomolecular and Corrosion Engineering and The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Corrosion Technology" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

Code	Title	Hours
Required Courses		7
Electives		10
Total Hours		17

### Required Courses

Code	Title	Hours
CRET:120	Corrosion Engineering Technology Fundamentals I	3
CRET:121	Corrosion Engineering Technology Fundamentals II	4
Total Hours		7

### Electives

Code	Title	Hours
<b>Complete at least one course from each of the following three categories and a total of at least 9 credits</b>		<b>9</b>
<i>Chemistry</i>		
CHEM:101	Chemistry for Everyone	
or CHEM:151	Principles of Chemistry I	
<i>Electricity</i>		

## Civil Engineering

The Department of Civil Engineering (<https://www.uakron.edu/engineering/CE/>) offers an undergraduate program leading to the Bachelor of Science in Civil Engineering. The department also offers programs leading to the Associate of Applied Science and the Bachelor of Science in Construction Engineering Technology, the Associate of Applied Science in Construction Field Operations, the Associate of Applied Science in Land Surveying, and the Bachelor of Science in Surveying and Mapping, as well as a number of certificates. The department offers graduate programs leading to a Master of Science in Civil Engineering, and an interdisciplinary Doctor of Philosophy in Engineering, along with graduate-level certificate programs for practicing professionals.

Information specific to the available program options in civil engineering is available:

- Civil Engineering, BS (p. 483)
- Civil Engineering, Co-op Option, BS (p. 487)
- Construction Engineering Technology, AAS (p. 489)
- Construction Engineering Technology, BS (p. 490)
- Construction Estimation, Certificate (p. 493)
- Construction Field Operations, AAS (p. 493)
- Construction Management, Certificate (p. 494)
- Construction Materials Testing, Certificate (p. 495)
- Geographic and Land Information Systems, Certificate (p. 495)
- Heavy Construction, Certificate (p. 495)
- Land Surveying, AAS (p. 496)
- Residential Building Technology, Certificate (p. 497)
- Residential Inspection, Certificate (p. 498)
- Surveying and Mapping, BS (p. 498)
- Surveying for Civil Engineers, Certificate (p. 501)
- Surveying, Certificate (p. 501)

## Surveying and Mapping (SURV)

### SURV:100 Introduction to Geomatics (2 Credits)

An introductory course into the field of surveying and mapping technology. Integrated topics include: types of surveys, cartography, and geographic information systems. (Formerly 2980:100)

**SURV:101 Basic Surveying (3 Credits)**

Corequisite: MATH 153 or MATH 154 or MATH 255 or MATH 356 or MATH 145 or MATH 149 or MATH 221 or MATH 222 or MATH 335. Care and use of basic surveying field instruments and the basic computations and adjustments necessary to post process the field survey measurements. Field Practice. (Formerly 2980:101)

**SURV:102 Topographic Surveying (2 Credits)**

Prerequisites: SURV 101 and MATH 153. Computations and adjustments of field survey measurements using both conventional and computer methods. Development of maps and plans stressed. Field Practice. (Formerly 2980:102)

**SURV:105 Introduction to Geographic & Land Information Systems (3 Credits)**

Introduction to the principles and concepts of Geographic and Land Information Systems used in surveying and mapping applications. Laboratory. (Formerly 2985:101)

**SURV:123 Surveying Field Practice (2 Credits)**

Prerequisite: SURV 102 or equivalent. Practical experience in use of surveying equipment and methods of surveying. Provides students with responsibility for making decisions and planning and directing complete project. (Formerly 2980:123)

**SURV:155 Computer Applications in Surveying (3 Credits)**

Use of current surveying software to solve typical problems/projects in surveying technology. (Formerly 2980:155)

**SURV:170 Surveying Drafting (3 Credits)**

Corequisite: MATH 152 or permission. Drafting procedures, techniques, and tools required for the various phases of survey office work. Projects include topographic maps, plan and profile drawings, and cross-section drawings. Laboratory. (Formerly 2980:170)

**SURV:201 Intermediate Geographic and Land Information Systems (3 Credits)**

Prerequisite: SURV 105. Continued instruction in the hands-on technical applications of Geographic and Land Information Systems. Laboratory. (Formerly 2985:201)

**SURV:205 Building Geodatabases (3 Credits)**

Prerequisite: SURV 105. Introduction and application of spatial geodatabases. The student will create, use, and manage geodatabases. Geodatabases are used for storing spatial and attribute data. Laboratory. (Formerly 2985:205)

**SURV:222 Construction Surveying (3 Credits)**

Prerequisite: SURV 101. Methods and procedures for establishing line and grade for construction. Circular and parabolic curves. Cross-sectioning methods and earthwork. Communication and plan reading. (Formerly 2980:222)

**SURV:223 Geospatial Technologies (3 Credits)**

Introduction to current and emerging geospatial technologies, such as Geographic Information Systems, remote sensing and global positioning systems, and exploring mapping data sources. Laboratory required. (Formerly 2980:223)

**SURV:225 Advanced Surveying (3 Credits)**

Prerequisite: SURV 101. Introduction to flood maps, ALTA surveys, and geodesy. Advanced topics in control surveys, state plane coordinates, and bearings from celestial observation. (Formerly 2980:225)

**SURV:228 Boundary Surveying (3 Credits)**

Prerequisite: SURV 101 or equivalent. Analysis of evidence and procedures for boundary location; establishing and/or locating points for boundary and mortgage location surveys; plat preparation. Ohio survey minimum standards. (Formerly 2980:228)

**SURV:251 CST Seminar (1 Credit)**

Prerequisite: SURV 222. Prepares students for the National Society of Professional Surveyors Certified Surveying Technician (CST) Level I Examination. Examination is given at the end of the review sessions. (Formerly 2980:251)

**SURV:310 Survey Computations & Adjustments (2 Credits)**

Prerequisite: SURV 225. Concepts relating to measurement error, probability, and reliability. Computation and adjustment of horizontal and vertical networks. (Formerly 2980:310)

**SURV:315 Boundary Control & Legal Principles (3 Credits)**

Prerequisite: SURV 228. Historical development of boundaries, rectangular system of public land surveys, systems to describe property, surveyor's responsibility to understand and properly apply legal principles to boundary. (Formerly 2980:315)

**SURV:325 Safety for Surveyors (1 Credit)**

To provide safety and first aid training required for surveying. (Formerly 2980:325)

**SURV:330 Applied Photogrammetry (3 Credits)**

An introduction to metrical and quantitative photogrammetry using both hard- and soft-copy systems. Laboratory. (Formerly 2980:330)

**SURV:335 The Business of Surveying (2 Credits)**

A course focused on the business aspects of surveying, including development of business plan components for a company offering professional surveying and mapping services. (Formerly 2980:335)

**SURV:340 Cadastral Surveying (2 Credits)**

Prerequisites: SURV 101. A study of the official surveys of the United States. Cadastral surveys establish or recreate boundaries and /or tracts of land. (Formerly 2980:340)

**SURV:350 Mapping with Drones (3 Credits)**

An introduction to Unmanned Aircraft Systems (UAS) and its associated applications as it relates to land surveying and mapping. (Formerly 2980:350)

**SURV:410 LiDAR and Laser Scanning (2 Credits)**

Prerequisite: SURV 105. Introduction to LiDAR (aerial and terrestrial) scanning as it applies to surveying and mapping. The course will discuss the collection and dissemination methods of the data. (Formerly 2980:410)

**SURV:415 Legal Aspects of Surveying (3 Credits)**

Prerequisite: SURV 315. A study of statute and common law related to land surveying. Evidence and the surveyor's role in the judicial process. Interpreting and writing land descriptions. (Formerly 2980:415)

**SURV:420 Route Surveying (3 Credits)**

Prerequisite: SURV 225. Surveying for long but narrow strips of land such as highways, railroads, and pipe lines. Course includes all requisite calculations and drawings. (Formerly 2980:420)

**SURV:421 Subdivision Design (3 Credits)**

Prerequisites: SURV 155, SURV 222, and SURV 315. Site analysis, land use controls, and plotting procedures. Laboratory includes preparation of various types of projects leading to a complete subdivision. (Formerly 2980:421)

**SURV:422 Global Positioning System Surveying (3 Credits)**

Prerequisites: SURV 225 and SURV 105 or permission. Introduction to the Global Positioning System (GPS). Course includes the planning, data collection, and processing of GPS data. (Formerly 2980:422)

**SURV:425 Land Navigation (3 Credits)**

Interpretation and use of topographic maps. Study of basic map elements with emphasis on identification of features and coordinate systems. Map use for land navigation. (Formerly 2980:425)

**SURV:426 History of Surveying To 1785 (2 Credits)**

A history of land surveying. Emphasis on the development of survey procedures through history. Part I (to 1785) covers the ancient world to the colonial period. (Formerly 2980:426)

**SURV:427 Ohio Lands (2 Credits)**

Study of the history of the original Ohio Land Subdivisions (Formerly 2980:427)

**SURV:428 History of Surveying Since 1785 (2 Credits)**

A history of land surveying. Emphasis on the development of survey procedures through history. Part II (Since 1785) covers the history of the United States to date. (Formerly 2980:428)

**SURV:430 Surveying Project (3 Credits)**

Prerequisite: Senior standing and placement of advisor. Provides opportunity to research and develop a specific surveying project within chosen area of surveying. Oral, written and graphical presentation of completed project(s). (Formerly 2980:430)

**Gen Ed:** - Capstone

**SURV:431 Senior Seminar (2 Credits)**

Prerequisite: Senior or greater standing. Students demonstrate knowledge and skills acquired as surveying majors through assessment testing and review of professional licensure laws. Preparation for national exams. (Formerly 2980:431)

**SURV:445 Applications in GIS using GPS (3 Credits)**

Prerequisite: SURV 105. Advanced instruction in GIS applications using GPS as well as other surveying and mapping methods. Laboratory. (Formerly 2980:445)

**SURV:450 Topics in Professional Practice (2 Credits)**

Prerequisite: Junior or greater standing. Topics in applicational areas of surveying from the point of view of the practitioner and the consumer of land-related data. (Formerly 2980:450)

**SURV:489 Special Topics in Surveying (1-3 Credits)**

Prerequisite: Permission. Special lecture/laboratory courses offered once or only occasionally in areas where no formal course exists. (May be repeated for a maximum of six credits.) (Formerly 2980:489)

**SURV:490 Workshop in Surveying (1-3 Credits)**

Prerequisite: Permission. Group study of special topics in surveying. May not be used to meet undergraduate major requirements in surveying. May be used for elective credit only. (May be repeated for a maximum of six credits.) (Formerly 2980:490)

**SURV:495 Internship: Surveying and Mapping (3 Credits)**

Prerequisites: 64 hours in program and permission. Supervised work experience in surveying and mapping to increase student understanding of surveying and mapping technology. (Formerly 2980:495)

**SURV:497 Surveying Honors Project (3 Credits)**

Prerequisite: Senior standing in the honors program. Provides opportunities to research and develop a specific surveying project within chosen area of surveying. Oral, written, and geographical presentation of completed projects. (Formerly 2980:497)

**SURV:498 Independent Study (1-3 Credits)**

Prerequisite: Permission or instructor. Directed study in a special field of interest chosen by student in consultation with instructor. (May be repeated for a total of six credits). (Formerly 2980:498)

## Construction Engineering Technology (COET)

**COET:125 Statics (3 Credits)**

Prerequisites: MATH 154 and PHYS 160. This course covers forces, resultants, and couples. Equilibrium of force systems. Trusses, frames, centroid, moment of inertia, and friction. (Formerly 2990:125)

**COET:129 Professional Topics in Construction (3 Credits)**

This course introduces students to important professional topics and computing skills for construction managers including software for estimating, scheduling, presentations, general business administration and graphics. (Formerly 2990:129)

**COET:131 Building Construction (2 Credits)**

Materials and methods used in construction. Encompasses buildings constructed with wood, steel, concrete or a combination of these materials. (Formerly 2990:131)

**COET:150 Plan Reading (2 Credits)**

Prerequisite: COET 131. The language of construction. Symbols, scales, plan views, elevation views, sections and details. Quantity take-off estimation. (Formerly 2990:150)

**COET:225 Strength of Materials (3 Credits)**

Prerequisite: COET 125. Stress, strain and stress-strain relationships. Tension, compression, torsion, beams. Shear and moment diagrams. Combines stresses. (Formerly 2990:225)

**COET:226 Construction Supervision (3 Credits)**

Introduction to topics on construction supervision including planning, directing and coordinating onsite activities to build quality defined by drawings and specifications. (Formerly 2990:226)

**COET:234 Elements of Structures (3 Credits)**

Prerequisites: COET 125 and COET 225. Principles of stress and structural analysis, concepts of steel, timber design, and reinforced concrete. (Formerly 2990:234)

**COET:235 Construction Inspection (3 Credits)**

Prerequisite: COET 131. Fundamentals of total quality management and construction inspection. (Formerly 2990:235)

**COET:237 Materials Testing I (2 Credits)**

Prerequisite: MATH 154. Laboratory testing of soils with emphasis on physical properties of soil. Laboratory and field procedures used for quality control. (Formerly 2990:237)

**COET:238 Materials Testing II (2 Credits)**

Prerequisite: MATH 154. Mix design of concrete. Laboratory testing of concrete containing ordinary Portland cement and pozzolanic admixtures. Experiments demonstrate physical properties as related to design and quality control. (Formerly 2990:238)

**COET:239 Construction Geomechanics (3 Credits)**

This course provides an understanding of the impact of the mechanical behavior and engineering properties of soils and rock related to construction processes and methods. Topics include erosion control, laboratory test methods for engineering design, flood and mass wasting behavior, soil subsidence, and sustainability of engineered coastal structures. (Formerly 2990:239)

**COET:245 Construction Estimating (3 Credits)**

Prerequisites: MATH 154 and COET 150. Quantity takeoffs in construction to include mass excavations, foundation systems, structural steel, residential construction, and various commercial construction methods. (Formerly 2990:245)

**COET:246 Site Engineering (3 Credits)**

Prerequisite: MATH 153. The content includes study of the development of a site including surveying, excavation, soil treatment, heavy equipment requirements, storm water management, pavement design, and construction of roadways. (Formerly 2990:246)

**COET:248 Construction Graphics (3 Credits)**

Introduction to terminology and drawing basics with a focus on civil/site plans, architectural and structural drawing. (Formerly 2990:248)

**COET:254 Building Codes (3 Credits)**

Prerequisite: COET 131. Students learn fundamental concepts for construction related to the residential building code. (Formerly 2990:254)

**COET:310 Residential Building Construction (3 Credits)**

Introduction to building design, wood framing, and mechanical systems as commonly found in residential housing. (Formerly 2990:310)

**COET:352 Field Management & Scheduling (2 Credits)**

Prerequisite: COET 245 or permission. Planning, scheduling, and controlling of field work within time and cost constraints. Manual methods and computer software packages studied. (Formerly 2990:352)

**COET:354 Foundation Construction Methods (3 Credits)**

Prerequisites: COET 225 and COET 237. Soil mechanics and soils exploration as related to construction. Foundation construction methods and practice in the interest of safety and suitable economy. (Formerly 2990:354)

**COET:356 Safety in Construction (3 Credits)**

The purpose of this course is to explain what creates hazards and why, and to suggest where to anticipate trouble in each phase of the work as it progresses. (Formerly 2990:356)

**COET:358 Advanced Estimating (3 Credits)**

Prerequisite: COET 245. This course focuses on estimating and bidding for public and private construction. Includes heavy/highway, residential and building construction with use of computer software to facilitate bid price. (Formerly 2990:358)

**COET:361 Construction Formwork (3 Credits)**

Prerequisite: COET 234 or permission. Introduction to design and construction of formwork and temporary wood structures. (Formerly 2990:361)

**COET:362 Advanced Elements of Structures (3 Credits)**

Prerequisite: COET 234. This course examines advanced topics in structural engineering and is an extension of Elements of Structures. (Formerly 2990:362)

**COET:371 Green & Sustainable Building Practices (3 Credits)**

This course is designed to provide an understanding of sustainable construction practices and their importance on environmental issues. (Formerly 2990:371)

**COET:421 Risk Management and Contract Strategies (3 Credits)**

Prerequisite: Admission to the BSCET program, or permission from program director. This course focuses on current trends and challenges related to construction contracting. Students will learn critical "issue spotting" skills in areas of construction risk management, loss avoidance, collaboration, and strategic thinking. (Formerly 2990:421)

**COET:422 Leveraging Technology in Construction (3 Credits)**

Prerequisite: Admission to the BSCET program, or permission from program director. This course we will describe how to use emerging trends and technologies to improve project outcomes. Topics include digital and computing technologies - BIM, video and laser scanning, AI and cloud computing, big data and data analytics, reality capture, blockchain, simulation, augmented reality, data standards and interoperability, and vertical and horizontal integration, industrial production - prefabrication, 3D printing and assembly, offsite manufacture, cyber-physical systems - actuators, sensors, IoT, robots, cobots, and drones. (Formerly 2990:422)

**COET:442 Lean Building Science (3 Credits)**

Prerequisite: Admission to the BSCET program. This course is designed to provide an understanding of collaborative leadership and lean building science as it relates to job site construction safety, building first cost, schedule, ongoing building operating expenses, and upcycle construction benefits. Students will work in classroom and workshop settings led by construction industry leaders and subject matter experts. There will also be the opportunity to experience job site application of these practices. Core concepts will be taught through a variety of methods, such as learning checks, peer presentations, videos, social media posts and smaller group projects. Students will learn a variety of tools they can apply immediately to their work to reduce waste and improve the overall efficacies of their organizations. (Formerly 2990:442)

**COET:453 Legal Aspects of Construction (2 Credits)**

Prerequisite: Admission into the BCET program or permission. Study of business of contracting and subcontracting and legal problems therein such as breach, partial performance, payment, insolvency, subsurface. Review of standard contracts and construction industry rules of arbitration. (Formerly 2990:453)

**COET:462 Mechanical Service Systems (3 Credits)**

Introduction to materials and equipment used in mechanical heating, ventilating, air conditioning, water and waste systems. (Formerly 2990:462)

**COET:463 Electrical Service Systems (3 Credits)**

Introduction to materials and equipment in electrical systems of buildings. Includes illumination, electrical sources, materials and distribution. Emphasis of fire safety. (Formerly 2990:463)

**COET:465 Heavy Construction Estimating (3 Credits)**

Prerequisite: COET 245. Quantity takeoffs and cost analysis to include methods, systems, and equipment relevant to heavy highway and civil infrastructure projects. (Formerly 2990:465)

**COET:466 Hydraulics (3 Credits)**

Prerequisite: Junior or greater standing. Pre/Corequisite: MATH 356. Introduction to hydrology. Flow in closed conduits and open channels, distribution, systems, storage requirements and basic concepts of hydraulic structures. Basic concepts of seepage and working knowledge of pumps. (Formerly 2990:466)

**COET:468 Construction Management (3 Credits)**

Prerequisites: COET 352 and COET 358. Construction Management takes established construction practices, current technological advances, and latest management methods and makes them into an efficient, smooth working system. (Formerly 2990:468)

**Gen Ed:** - Capstone



**COET:469 Contracts and Specifications (3 Credits)**

Prerequisite: Admission to BSCET program or permission. This course studies the principles and applications of construction specifications, contracts, processes for managing professional risk and increasing economic performance of the construction process. (Formerly 2990:469)

**COET:471 Understanding LEED Guidelines (3 Credits)**

Prerequisite: COET 371. Provides an understanding of LEED guidelines and requirements and help prepare the student for the LEED associate exam. (Formerly 2990:471)

**COET:479 CPC Seminar (3 Credits)**

Prerequisite: Senior standing in a BS Degree in Construction Engineering Technology or permission. This course prepares students for the content and format of the Certified Professional Constructor's Examination. (Formerly 2990:479)

**COET:489 Special Topics in Construction (1-3 Credits)**

Prerequisite: Permission of instructor. (May be repeated for up to six credits.) Special lecture/laboratory courses offered once or only occasionally in areas where no formal courses exist. (Formerly 2990:489)

**COET:490 Workshop in Construction (1-3 Credits)**

Prerequisites: Permission. Group studies of special topics in construction. May not be used to meet undergraduate major requirements in construction. May be used for elective credit only. (May be repeated for up to six credits) (Formerly 2990:490)

**COET:497 Honors Project (1-3 Credits)**

Prerequisite: Senior standing in Honors College and permission of supervising faculty in student's degree field and pursuit of major in CET. Individual Senior Honor's Project relevant to student's major field of study. Specific projects are approved and supervised by a designated member of the faculty in the student's degree field. (Formerly 2990:497)

**COET:498 Independent Study in Construction (1-3 Credits)**

Prerequisite: Permission. Directed study in a special field of interest chosen by student in consultation with instructor. (May be repeated for up to six credits) (Formerly 2990:498)

## Civil Engineering (CIVE)

**CIVE:101 Introduction to Civil Engineering Fundamentals (3 Credits)**

Corequisite: MATH 149 or higher math or appropriate AP test score. Introduction to Civil Engineering. Basic concepts of civil engineering practice including communication skills, problem solving skills, professional ethics/goals, and teamwork. Introduction to professional level software including spreadsheets, database, and mathematical computation. (Formerly 4300:101)

**CIVE:102 Tools for Civil Engineering (3 Credits)**

Prerequisite: CIVE 101. Building on concepts of engineering practices learned in Tools I further developing communication skills, problem solving skills, professional ethics/goals, statistics and model-building, and teamwork. Advanced use of professional level software including CAD, MATLAB and Excel. (Formerly 4300:102)

**CIVE:201 Statics (3 Credits)**

Corequisites: MATH 222 and PHYS 291. Forces, resultants, couples; equilibrium of force systems; distributed forces; centers of gravity, analysis of simple structures; moments of inertia; kinematics. (Formerly 4300:201)

**CIVE:202 Introduction to Mechanics of Solids (3 Credits)**

Prerequisite: CIVE 201. Axial force, bending moment diagrams, axial stress and deformation; stress-strain diagrams; torsion; flexural stress; flexural shearing stress; compound stresses; indeterminate beams; columns. (Formerly 4300:202)

**CIVE:306 Theory of Structures (3 Credits)**

Prerequisite: CIVE 202. Stability and determinacy; statically determinate trusses and frames; approximate frame analysis influence lines; moving loads; virtual work analysis; moment area theorem; theorem of three moments; moment distribution for continuous beams and frames. (Formerly 4300:306)

**CIVE:313 Soil Mechanics (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Physical properties of soils. Soil water and groundwater flow. Stresses, displacements, volume changes, consolidation within a soil mass. Soil strength. Compaction. (Formerly 4300:313)

**CIVE:314 Foundation Design (3 Credits)**

Prerequisites: CIVE 313 and full admission to an engineering major in the College of Engineering and Polymer Science. Subsurface exploration, shallow foundations, earth retaining structures, deep foundations (Formerly 4300:314)

**CIVE:321 Introduction to Environmental Engineering (3 Credits)**

Prerequisites: CHEM 153 and MATH 222. Basic principles of ecosystems, microbiology, chemical reactions, and material flow that environmental engineers use to protect our water, air and soil. (Formerly 4300:321)

**CIVE:323 Water Supply & Pollution Control (3 Credits)**

Prerequisite: CIVE 321 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: MATH 335. Water and wastewater characteristics, criteria, quantities and distribution. Water and wastewater treatment process flowsheets, design and operation. Wastewater and residue disposal. (Formerly 4300:323)

**CIVE:341 Hydraulic Engineering (3 Credits)**

Prerequisites: MECE 310 and admission to an engineering major within the College of Engineering and Polymer Science. This course will focus on presentation and application of fundamental hydraulic principles in both the classroom and laboratory. Examination of flow in pipelines and pipe networks, pumps and pumping stations, hydrology, flow in open channels, groundwater hydraulics, and design of hydraulic structures will be studied. Emphasis will be placed on proper application of principles, data interpretation and analysis, problem solving, and report writing. (Formerly 4300:341)

**CIVE:361 Transportation Engineering (3 Credits)**

Prerequisites: Junior standing and admission to an engineering major within the College of Engineering and Polymer Science. Introductory survey of transportation topics including transportation planning requirements and techniques, introduction to design of highways, airports and railroads and introduction to traffic engineering. (Formerly 4300:361)

**CIVE:380 Engineering Materials Laboratory (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science. Fundamentals and applications of materials science, mechanics of solids and study of laboratory instrumentation and standard techniques in testing of engineering materials. (Formerly 4300:380)

**CIVE:401 Steel Design (3 Credits)**

Prerequisites: CIVE 306 and admission to an engineering major within the College of Engineering and Polymer Science. Tension, compression members; open web joists; beams; bearing plates; beam-columns; bolted, welded connections. (Formerly 4300:401)

**CIVE:403 Reinforced Concrete Design (3 Credits)**

Prerequisites: CIVE 306 and admission to an engineering major within the College of Engineering and Polymer Science. Ultimate strength analysis and design; compression steel; diagonal tension; stirrups; development length; one-way slab; T-beams; two-way slabs; columns; isolated and combined footings. (Formerly 4300:403)

**CIVE:404 Advanced Structural Design (3 Credits)**

Prerequisites: CIVE 401 and CIVE 403. Composite design; plate girders; plastic design; cantilever retaining walls; torsion in R/C members; deflection of R/C members; continuous girder bridge design. (Formerly 4300:404)

**CIVE:407 Advanced Structural Analysis (3 Credits)**

Prerequisite: CIVE 306. Energy methods for beams and frames. Stiffness and flexibility formulations for framed structures using classical and matrix methods. Introduction to stability and plastic analysis. Warping-Torsion behavior of beams. Analysis of axisymmetric circular plates and membrane shells. (Formerly 4300:407)

**CIVE:414 Design of Earth Structures (3 Credits)**

Prerequisite: CIVE 314 or permission. Design of earth structures: dams, highway fills, cofferdams, etc. Embankment construction techniques, quality control, embankment analysis, instrumentation, foundation soil stabilization, seepage analysis and control. Design problem. Graduate students will perform more advanced analysis and design. (Formerly 4300:414)

**CIVE:418 Soil & Rock Exploration (3 Credits)**

Prerequisite: CIVE 314 or permission. Site exploration criteria and planning. Conventional boring, sampling and in situ testing methods. Theory and application of geophysics and geophysical methods including seismic, electrical resistivity, gravity, magnetic and radioactive measurements. Air photo interpretation. (Formerly 4300:418)

**CIVE:423 Chemistry for Environmental Engineers (3 Credits)**

Prerequisite: One year of college chemistry. General, physical, organic biochemistry, equilibrium, and colloid chemistry concepts applied to Environmental Engineering. Concepts are used in water and wastewater laboratory. (Formerly 4300:423)

**CIVE:424 Water-Wastewater Laboratory (1 Credit)**

Corequisite: CIVE 323 or permission. Analysis of water and wastewater. (Formerly 4300:424)

**CIVE:426 Environmental Engineering Design (3 Credits)**

Prerequisite: CIVE 323. An introduction to the physical, chemical and biological processes utilized in the treatment of water and wastewater, with design parameters emphasized. (Formerly 4300:426)

**CIVE:427 Water Quality Modeling & Management (3 Credits)**

Prerequisite: CIVE 323. Analysis and simulation of the physical, chemical and biochemical processes affecting stream quality. Development of management strategies based upon the application of water quality modeling techniques to environmental systems. (Formerly 4300:427)

**CIVE:428 Hazardous & Solid Wastes (3 Credits)**

Prerequisite: Senior standing or permission of instructor. Hazardous and solid waste quantities, properties and sources are presented. Handling, processing, storage and disposal methods are discussed with non-technical constraints outlined. (Formerly 4300:428)

**CIVE:441 Hydraulic Design (3 Credits)**

Prerequisite: CIVE 341. Collection and critical evaluation of hydraulic data related to actual design problem selected by instructor. Development and analysis of design alternatives. Preparation of reports. (Formerly 4300:441)

**CIVE:443 Applied Hydraulics (3 Credits)**

Prerequisites: CIVE 341 and admission to an engineering major within the College of Engineering and Polymer Science. Review of design principles: urban hydraulics, stream channel mechanics, sedimentation, coastal engineering. (Formerly 4300:443)

**CIVE:445 Hydrology (3 Credits)**

Prerequisite: CIVE 341. Surface water hydrology, water cycle, precipitation, evaporation, stream flow. Principles of hydrologic systems and their analysis. Hydrologic simulation, reservoir planning and water supply studies. Analysis of rainfall and floods. (Formerly 4300:445)

**CIVE:448 Hydraulics Laboratory (1 Credit)**

Prerequisite: CIVE 341. Introduction to laboratory and field devices for hydraulic measurements. Reduction and presentation of hydraulic data. Individual assignments of model studies of hydraulic structures. (Formerly 4300:448)

**CIVE:450 Urban Planning (2 Credits)**

Historical developments in urban planning; urban planning techniques and patterns; comprehensive master planning studies; planning regulations; design problems; class projects; class project presentation. (Formerly 4300:450)

**CIVE:451 Computer Methods of Structural Analysis (3 Credits)**

Prerequisite: CIVE 306. Computer methods of structural analysis. Finite element software and interactive graphics. Stiffness concepts and matrix formulation of beams; modeling of simple and complex structural systems; vibration analysis using microcomputers. (Formerly 4300:451)

**CIVE:452 Structural Vibrations & Earthquakes (3 Credits)**

Prerequisite: CIVE 306. Vibration and dynamic analysis of structural systems with one, two, or more degrees of freedom; beams, frames, buildings and bridges. Numerical methods of analysis. Elastic-plastic systems. Earthquake analysis of design. Earthquake codes. (Formerly 4300:452)

**CIVE:453 Optimum Structural Design (3 Credits)**

Prerequisite: CIVE 306. Basic concepts in structural optimization. Mathematical programming methods including unconstrained minimization, multidimensional minimization and constrained minimization. (Formerly 4300:453)

**CIVE:454 Advanced Mechanics of Materials (3 Credits)**

Prerequisite: CIVE 202 or equivalent. Three-dimensional state of stress and strain analysis. Unsymmetric bending of straight and curved members with shear deformation. Beams on elastic foundations. Saint Venant's torsional problems. Inelastic analysis of bending and torsional members. Introduction to energy method. Instability behavior of prismatic members. (Formerly 4300:454)

**CIVE:463 Transportation Planning (3 Credits)**

Prerequisite: CIVE 361. Theory and techniques for development, analysis and evaluation of transportation system plans. Emphasis on understanding and using tools and professional methods available to solve transportation planning problems, especially in urban areas. (Formerly 4300:463)

**CIVE:464 Highway Design (3 Credits)**

Prerequisite: CIVE 361. Study of modern design of geometrical and pavement features of highways. Design problem and computer use. Graduate students will produce a more complete design. (Formerly 4300:464)

**CIVE:465 Pavement Engineering (3 Credits)**

Prerequisite: CIVE 361. Theories of elasticity, of viscoelasticity and of layered systems as applied to pavements. Pavement materials characterization; pavement design, pavement restoration for rigid and flexible pavements. (Formerly 4300:465)

**CIVE:466 Traffic Engineering (3 Credits)**

Prerequisite: CIVE 361. Vehicle and urban travel characteristics, traffic flow theory, traffic studies, accidents and safety, traffic signs and marking, traffic signal planning, traffic control and transportation administration. (Formerly 4300:466)

**CIVE:467 Advanced Highway Design (3 Credits)**

Prerequisites: CIVE 464, autoCAD capability, or permission. Computer-aided geometrical design of highways including survey data input, digital terrain modeling, cross-section templates, horizontal and vertical roadway design, earthwork computations, and advanced topics. (Formerly 4300:467)

**CIVE:468 Highway Materials (3 Credits)**

Prerequisites: CIVE 361 and CIVE 380 or permission. Properties of aggregates, manufacture and properties of portland cement concrete, properties of asphaltic materials, design and testing of hot mix asphalt pavement mixes and of surface treatments. Laboratory preparation of specimens and determination of properties. Graduate student requirement: Graduate students will be required to perform an additional eight-hour asphalt laboratory (Absorption recovery of asphalt from solution) and to prepare a paper on a highway materials topic. (Formerly 4300:468)

**CIVE:471 Construction Administration (3 Credits)**

Prerequisites: Junior standing and full admission to an engineering major in the College of Engineering and Polymer Science. Construction management functions, scheduling techniques for construction projects, scheduling PERT networks and linear operations, estimating building projects, construction contracts and legal structure, construction finance, engineering economics, equipment productivity, machine power, equipment selection and utilization, equipment cost, construction safety, construction trends, LEED construction. (Formerly 4300:471)

**CIVE:472 Construction Engineering (3 Credits)**

Prerequisite: Senior standing or permission. Construction equipment selection and management. Techniques of various engineering construction operations including blasting, tunneling, concrete framework and dewatering. (Formerly 4300:472)

**CIVE:473 Construction Materials (2 Credits)**

Prerequisites: CIVE 380 and CHEE 305. Composition, structure and mechanical behavior of structural materials such as concrete, wood, masonry, plastics and composite materials. Discussion of applications and principles of evaluating material properties. (Formerly 4300:473)

**CIVE:474 Underground Construction (2 Credits)**

Prerequisite: CIVE 314. Description of practices and techniques of underground construction. Selection of proper method for individual job. Design of underground openings, support systems and linings. (Formerly 4300:474)

**CIVE:480 Reliability-Based Design (4 Credits)**

Prerequisite: STAT 261 and senior standing. Probability concepts in civil engineering. Risk analysis and reliability based design. (Formerly 4300:480)

**CIVE:482 Special Projects: Civil Engineering (1-3 Credits)**

Prerequisites: Senior standing and permission. Directed individual or group research or study in student's field of interest. Topic subject to approval by adviser. (Formerly 4300:482)

**CIVE:489 Fundamental of Engineering Exam Review (0 Credits)**

Prerequisite: Senior standing. This course is intended to prepare civil engineering students for the Fundamentals of Engineering Exam, which is to be taken prior to graduation. (Formerly 4300:489)

**CIVE:490 Senior Design in Civil Engineering (3 Credits)**

Prerequisites: CIVE 323, CIVE 341, CIVE 361, CIVE 403, senior standing and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: CIVE 314 and CIVE 401. A civil engineering design project that emphasizes interdisciplinary teamwork to solve a substantial, currently relevant problem. (Formerly 4300:490)

Gen Ed: - Capstone

**CIVE:497 Honors Project (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Senior standing in Honors Program. Individual creative project or design relevant to civil engineering, supervised by faculty member of the department. (Formerly 4300:497)

## Civil Engineering, BS

### Bachelor of Science in Civil Engineering (430000BS)

The Bachelor of Science in Civil Engineering can be combined with the Cooperative Education, College of Engineering and Polymer Science certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Civil Engineering can be earned without the certificate, with a nominal four-year plan of study.

The Civil Engineering undergraduate program offered by the Department of Civil Engineering at The University of Akron is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>.

### Program Educational Objectives

The program educational objectives of the Civil Engineering program are that, within a few years of graduation, our Civil Engineering graduates:

- Successfully and accurately complete Civil Engineering projects as part of a team, on time and within budget, in an ethical and professional manner, and using modern engineering tools-software
- An ability to communicate effectively with written, oral, and visual means in both technical and non-technical settings
- Professional service as evidenced by active participation in a professional society and/or educational outreach activities
- Engage in lifelong learning as evidenced by participation in continuing education courses, workshops, graduate courses, and by pursuing professional licensure
- A basic knowledge of the business of engineering including how the private and public sector operate separately and collectively

### Student Outcomes

The Civil Engineering program has specified these student outcomes to be achieved by the time of graduation:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety,

and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain approval to take classes in the third year of the curriculum and beyond.

## Cooperative Education

The Bachelor of Science in Civil Engineering can be combined with the Cooperative Education, College of Engineering and Polymer Science (p. 451) certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Civil Engineering can be earned without the certificate, with a nominal four-year plan of study.

## Accelerated BS/MS program

The department offers B.S. Civil Engineering students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Civil Engineering with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of the **Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	24
	Math and Natural Science	30
	Engineering Core	11
	Non-Engineering Core	3

Civil Engineering	48
Technical Electives	15
<b>Total Hours</b>	<b>131</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Math and Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
<b>Total Hours</b>		<b>30</b>

## Engineering Core

Code	Title	Hours
MECE:203	Dynamics	3
MECE:310	Fluid Mechanics I	2
MECE:305	Thermal Science	2

ELEN:307	Basic Electrical Engineering	4
Total Hours		11

## Non-Engineering Core

Code	Title	Hours
SURV:101	Basic Surveying	3
or GEOG:405	Geographic Information Systems	
Total Hours		3

## Civil Engineering

Code	Title	Hours
CIVE:101	Introduction to Civil Engineering Fundamentals	3
CIVE:102	Tools for Civil Engineering	3
CIVE:201	Statics	3
CIVE:202	Introduction to Mechanics of Solids	3
CIVE:306	Theory of Structures	3
CIVE:313	Soil Mechanics	3
CIVE:314	Foundation Design	3
CIVE:321	Introduction to Environmental Engineering	3
CIVE:323	Water Supply & Pollution Control	3
CIVE:341	Hydraulic Engineering	3
CIVE:361	Transportation Engineering	3
CIVE:380	Engineering Materials Laboratory	3
CIVE:401	Steel Design	3
CIVE:403	Reinforced Concrete Design	3
CIVE:471	Construction Administration	3
CIVE:490	Senior Design in Civil Engineering	3
Total Hours		48

## Technical Electives

Code	Title	Hours
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
Total Hours		15

## Recommended Schedule with Cooperative Education

This plan of study shows the recommended schedule for students who are also earning the Cooperative Education, College of Engineering and Polymer Science certificate (p. 451). Together, the Bachelor of Science and certificate require a five-year plan of study. The program recommends that students earn this certificate.

### 1st Year

Fall Semester	Hours
CHEM:151 Principles of Chemistry I <sup>1</sup>	3
CHEM:152 Principles of Chemistry I Laboratory	1
ENGL:111 English Composition I <sup>1,2</sup>	3
MATH:221 Analytic Geometry-Calculus I <sup>1</sup>	4

CIVE:101	Introduction to Civil Engineering Fundamentals	3
General Education or Honors Distribution <sup>4</sup>		3
Hours		17

### Spring Semester

CHEM:153	Principles of Chemistry II <sup>1</sup>	3
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
CIVE:102	Tools for Civil Engineering	3
Second Writing Course <sup>1,3</sup>		3
General Education or Honor Distribution <sup>4</sup>		3
Hours		16

### 2nd Year

#### Fall Semester

SURV:101	Basic Surveying	3
or GEOG:405	or Geographic Information Systems	
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
General Education or Honors Distribution <sup>4</sup>		3
Hours		17

#### Spring Semester

MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:202	Introduction to Mechanics of Solids	3
CIVE:321	Introduction to Environmental Engineering	3
MECE:203	Dynamics <sup>1</sup>	3
Hours		16

#### Summer Semester

GGEN:300	Cooperative Education Work Period <sup>optional</sup>	0
Hours		0

### 3rd Year

#### Fall Semester

CIVE:306	Theory of Structures	3
CIVE:313	Soil Mechanics	3
CIVE:323	Water Supply & Pollution Control	3
MECE:310	Fluid Mechanics I	2
General Education or Honors Distribution <sup>4</sup>		3
CE Technical/Professional Requirement		3
Hours		17

#### Spring Semester

GGEN:301	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

### 4th Year

#### Fall Semester

GGEN:302	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

#### Spring Semester

CIVE:314	Foundation Design	3
CIVE:341	Hydraulic Engineering	3
CIVE:361	Transportation Engineering	3

CIVE:380	Engineering Materials Laboratory	3
CIVE:401	Steel Design	3
MECE:305	Thermal Science	2
Hours		17

**Summer Semester**

GNEN:403	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

**5th Year****Fall Semester**

CIVE:403	Reinforced Concrete Design	3
CIVE:471	Construction Administration	3
ELEN:307	Basic Electrical Engineering	4
	CE Technical/Professional Requirement	3
	CE Technical/Professional Requirement	3
Hours		16

**Spring Semester**

CIVE:490	Senior Design in Civil Engineering	3
	CE Technical/Professional Requirement	3
	CE Technical/Professional Requirement	3
	General Education or Honors Distribution <sup>4</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
Hours		15
Total Hours		131

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> Recommendation for General Education, Writing First Course

<sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

<sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

## Recommended Schedule without Cooperative Education

If a student chooses not to earn the Cooperative Education certificate, the following four-year plan of study is used.

**1st Year**

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CIVE:101	Introduction to Civil Engineering Fundamentals	3
ENGL:111	English Composition I <sup>1,2</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
Hours		17

**Spring Semester**

CHEM:153	Principles of Chemistry II <sup>1</sup>	3
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MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
CIVE:102	Tools for Civil Engineering	3
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
Hours		16

**2nd Year****Fall Semester**

SURV:101	Basic Surveying	3
or GEOG:405	or Geographic Information Systems	
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
Hours		17

**Spring Semester**

MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:202	Introduction to Mechanics of Solids	3
CIVE:321	Introduction to Environmental Engineering	3
MECE:203	Dynamics <sup>1</sup>	3
Hours		16

**3rd Year****Fall Semester**

CIVE:306	Theory of Structures	3
CIVE:313	Soil Mechanics	3
CIVE:323	Water Supply & Pollution Control	3
MECE:310	Fluid Mechanics I	2
	General Education or Honors Distribution <sup>4</sup>	3
	CE Technical/Professional Requirement	3
Hours		17

**Spring Semester**

CIVE:314	Foundation Design	3
CIVE:341	Hydraulic Engineering	3
CIVE:361	Transportation Engineering	3
CIVE:380	Engineering Materials Laboratory	3
CIVE:401	Steel Design	3
MECE:305	Thermal Science	2
Hours		17

**4th Year****Fall Semester**

CIVE:403	Reinforced Concrete Design	3
CIVE:471	Construction Administration	3
ELEN:307	Basic Electrical Engineering	4
	CE Technical/Professional Requirement	3
	CE Technical/Professional Requirement	3
Hours		16

**Spring Semester**

CIVE:490	Senior Design in Civil Engineering	3
	CE Technical/Professional Requirement	3
	CE Technical/Professional Requirement	3
	General Education or Honors Distribution <sup>4</sup>	3

General Education or Honors Distribution <sup>4</sup>	3
Hours	15
Total Hours	131

- <sup>1</sup> Honors sections may be available; check the schedule of classes.
- <sup>2</sup> Recommendation for General Education, Writing First Course
- <sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
- <sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

## Civil Engineering, Co-op Option, BS Bachelor of Science in Civil Engineering with Co-op (430005BS)

This option of the undergraduate program in Civil Engineering includes a cooperative education component.

The Civil Engineering undergraduate program offered by the Department of Civil Engineering at The University of Akron is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>.

### Program Educational Objectives

The program educational objectives of the Civil Engineering program are that, within a few years of graduation, our Civil Engineering graduates:

- Successfully and accurately complete Civil Engineering projects as part of a team, on time and within budget, in an ethical and professional manner, and using modern engineering tools-software
- An ability to communicate effectively with written, oral, and visual means in both technical and non-technical settings
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- Engage in lifelong learning as evidenced by participation in continuing education courses, workshops, graduate courses, and by pursuing professional licensure
- A basic knowledge of the business of engineering including how the private and public sector operate separately and collectively

### Student Outcomes

The Civil Engineering program has specified these student outcomes to be achieved by the time of graduation:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must

consider the impact of engineering solutions in global, economic, environmental, and societal contexts

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major.

Students must show success in key classes early in the program curriculum before they gain approval to take classes in the third year of the curriculum and beyond.

## Accelerated BS/MS program

The department offers B.S. Civil Engineering students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Civil Engineering with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of the **Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	24
	Math and Natural Science	30
	Engineering Core	11
	Non-Engineering Core	3
	Civil Engineering	48
	Technical Electives	15
	Cooperative Education	0
	Total Hours	131

- \* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Math and Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		30

## Engineering Core

Code	Title	Hours
MECE:203	Dynamics	3
MECE:310	Fluid Mechanics I	2
MECE:305	Thermal Science	2
ELEN:307	Basic Electrical Engineering	4
Total Hours		11

## Non-Engineering Core

Code	Title	Hours
SURV:101	Basic Surveying	3
or GEOG:405	Geographic Information Systems	
Total Hours		3

## Civil Engineering

Code	Title	Hours
CIVE:101	Introduction to Civil Engineering Fundamentals	3
CIVE:102	Tools for Civil Engineering	3
CIVE:201	Statics	3
CIVE:202	Introduction to Mechanics of Solids	3
CIVE:306	Theory of Structures	3
CIVE:313	Soil Mechanics	3
CIVE:314	Foundation Design	3
CIVE:321	Introduction to Environmental Engineering	3
CIVE:323	Water Supply & Pollution Control	3
CIVE:341	Hydraulic Engineering	3
CIVE:361	Transportation Engineering	3
CIVE:380	Engineering Materials Laboratory	3
CIVE:401	Steel Design	3
CIVE:403	Reinforced Concrete Design	3
CIVE:471	Construction Administration	3
CIVE:490	Senior Design in Civil Engineering	3
Total Hours		48

## Technical Electives

Code	Title	Hours
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
	Civil Engineering Technical Elective	3
Total Hours		15

## Recommended Sequence

1st Year		
Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CIVE:101	Introduction to Civil Engineering Fundamentals	3
	General Education or Honors Distribution <sup>4</sup>	3
Hours		17
Spring Semester		
CHEM:153	Principles of Chemistry II <sup>1</sup>	3
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
CIVE:102	Tools for Civil Engineering	3
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honor Distribution <sup>4</sup>	3
Hours		16

2nd Year		
Fall Semester		Hours
SURV:101	Basic Surveying	3
or GEOG:405	or Geographic Information Systems	



MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	17
<b>Spring Semester</b>		
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:202	Introduction to Mechanics of Solids	3
CIVE:321	Introduction to Environmental Engineering	3
MECE:203	Dynamics <sup>1</sup>	3
	Hours	16
<b>Summer Semester</b>		
GGEN:300	Cooperative Education Work Period <sup>optional</sup>	0
	Hours	0
<b>3rd Year</b>		
<b>Fall Semester</b>		
CIVE:306	Theory of Structures	3
CIVE:313	Soil Mechanics	3
CIVE:323	Water Supply & Pollution Control	3
MECE:310	Fluid Mechanics I	2
	General Education or Honors Distribution <sup>4</sup>	3
	CE Technical/Professional Requirement	3
	Hours	17
<b>Spring Semester</b>		
GGEN:301	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
	Hours	0
<b>4th Year</b>		
<b>Fall Semester</b>		
GGEN:302	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
	Hours	0
<b>Spring Semester</b>		
CIVE:314	Foundation Design	3
CIVE:341	Hydraulic Engineering	3
CIVE:361	Transportation Engineering	3
CIVE:380	Engineering Materials Laboratory	3
CIVE:401	Steel Design	3
MECE:305	Thermal Science	2
	Hours	17
<b>Summer Semester</b>		
GGEN:403	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
	Hours	0
<b>5th Year</b>		
<b>Fall Semester</b>		
CIVE:403	Reinforced Concrete Design	3
CIVE:471	Construction Administration	3
ELEN:307	Basic Electrical Engineering	4
	CE Technical/Professional Requirement	3

	CE Technical/Professional Requirement	3
	Hours	16
<b>Spring Semester</b>		
CIVE:490	Senior Design in Civil Engineering	3
	CE Technical/Professional Requirement	3
	CE Technical/Professional Requirement	3
	General Education or Honors Distribution <sup>4</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	15
	Total Hours	131

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> Recommendation for General Education, Writing First Course

<sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

<sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

## Construction Engineering Technology, AAS

### Associate of Applied Science in Construction Engineering Technology (299103AAS)

#### Program Information

The AAS in Construction Engineering Technology program includes classroom and laboratory experiences which prepare students for careers in the construction industry and other allied industries.

More on the Construction Engineering Technology programs (<https://www.uakron.edu/engineering/CE/undergraduate/construction-tech/>)

#### Career Information

Individuals working in the field of construction engineering technology use knowledge of construction methods, business operations, and management skills to support construction projects. They work on residential and commercial buildings, bridges, road dams, wastewater treatment systems, or other similar projects. Common jobs assumed by graduates of this program include but are not limited to:

- **Engineering Technician** - use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance.
- **Construction Inspector** - ensure that construction, alteration, or repair complies with building codes and ordinances, zoning regulations, and contract specifications.
- **Cost Estimator or Cost Engineer** - responsible for creating the budget for a project to bid on it or aid in the project's management. Monitors and analyzes project cost estimates, expenditures, and forecasts.

- **Scheduler** - planning and scheduling of construction work and work crew. Gathers and analyzes information to prepare reports on the progress of projects.
- **Field Engineer** - Monitors activities at construction sites. Works to ensure construction progresses as scheduled and contract specifications are adhered to. Inspects construction site daily and works with contractors to complete scope items.
- **Project Engineer** - Under the supervision of the Project Manager, provides technical support to construction staff. Reviews plans and other technical documents, answers questions regarding the scope and/or timing of the project, and monitors costs and project progress.

## Bachelor Degree Program

Upon completion of the Associate of Applied Science in Construction Engineering Technology, a student may enroll in the Bachelor of Science in Construction Engineering Technology (p. 490) (299103BS).

The following information has official approval of the **Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
MATH:154	Technical Mathematics IV	3
COET:129	Professional Topics in Construction (Sch. lab) <sup>1</sup>	3
COET:131	Building Construction <sup>1</sup>	2
PHYS:261	Physics for Life Sciences I	4
Hours		15

### Spring Semester

MATH:255	Technical Calculus I	3
COMM:263	Professional Communications and Presentations	3
COET:125	Statics	3
COET:150	Plan Reading <sup>2</sup>	2
ENGL:222	Technical Report Writing	3
Hours		14

### 2nd Year

Fall Semester		Hours
COET:225	Strength of Materials	3
COET:237	Materials Testing I (Sch. lab) <sup>1</sup>	2
COET:246 or SURV:101	Site Engineering <sup>1</sup> or Basic Surveying	3
PHYS:262	Physics for Life Sciences II	4
COET:xxx	Technical Elective	3
Hours		15

### Spring Semester

COET:234	Elements of Structures <sup>2</sup>	3
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COET:238	Materials Testing II <sup>2</sup>	2
COET:245	Construction Estimating <sup>2</sup>	3
COET:xxx	Technical Elective <sup>3</sup>	6
Social Sciences Requirement		3
Hours		17
Total Hours		61

<sup>1</sup> Traditionally Fall only (See Program Contact).

<sup>2</sup> Traditionally Spring only (See Program Contact).

<sup>3</sup> Technical Electives are subject to enrollment demands and classroom schedules. See the list below.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

## Technical Electives

Code	Title	Hours
AMET:332	Management of Technology Based Operations	3
COET:254	Building Codes	3
COET:226	Construction Supervision	3
COET:235	Construction Inspection	3
COET:239	Construction Geomechanics	3
COET:310	Residential Building Construction	3
COET:361	Construction Formwork	3
COET:362	Advanced Elements of Structures	3
COET:465	Heavy Construction Estimating	3
COET:471	Understanding LEED Guidelines	3
COET:489	Special Topics in Construction	1-3
COET:490	Workshop in Construction	1-3
COET:498	Independent Study in Construction	1-3

## Construction Engineering Technology, BS

### Bachelor of Science in Construction Engineering Technology (299103BS)

More on the Construction Engineering Technology programs (<https://www.uakron.edu/engineering/CE/undergraduate/construction-tech/>)

## Program Description

The BS in Construction Engineering Technology degree program is an upper-level degree program designed to provide the student with additional education beyond the AAS degree in Construction Engineering Technology. This degree is also designed to meet the formal education requirements for registration as a Professional Engineer in the State of Ohio.

This degree program is defined as follows:

- The first two years are completed as an AAS degree in Construction Engineering Technology or similarly based program.
- Two years of additional prescribed coursework.

- A cooperative work experience in the construction field. The student normally enters the co-op segment between the junior and senior years.

The B.S. in Construction Engineering Technology degree program includes classroom, laboratory and industry experiences which prepares students for careers in the construction industry and other allied industries.

The Bachelor of Science in Construction Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org> (<http://www.abet.org/>)

## Career Opportunities Available

Individuals working in the field of construction engineering technologies use knowledge of construction methods, business operations and management skills to support construction projects. They work on residential or commercial buildings, bridges, roads, dams, wastewater treatment systems, or other similar projects. Common jobs assumed by graduates of this program include:

- **Field Engineer** - Monitors activities at construction sites. Works to ensure construction progresses as scheduled and contract specifications are adhered to. Inspects construction site daily and works with contractors to complete scope items.
- **Project Engineer** - Under the supervision of the Project Manager, provides technical support to construction staff. Reviews plans and other technical documents, answers questions regarding the scope and/or timing of the project, and monitors costs and project progress.
- **Construction Manager** - plan, organize, direct and coordinate building projects. Often called project managers, constructors, construction superintendents, project engineers, construction supervisors, or general contractors.
- **Construction Inspector** - ensure that construction, alteration, or repair complies with building codes and ordinances, zoning regulations, and contract specifications
- **Construction Coordinator** - coordinates construction scheduling and communication and acts as a liaison to project management concerning bids, subcontracting, progress and delays.
- **Cost Estimator or Cost Engineer** - responsible for creating the budget for a project to bid on it or aid in the project's management. Monitors and analyzes project cost estimates, expenditures, and forecasts.
- **Scheduler** - planning and scheduling of construction work and work crew. Gathers and analyzes information to prepare reports on the progress of projects.
- **Engineering Technician** - use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance.

## Requirements for Admission

Applicants for the Construction Engineering Technology program must hold an associate degree in Construction Engineering Technology from an accredited program or provide evidence of an equivalent academic background. The applicant must have a minimum cumulative grade-point average of 2.0 out of a possible 4.0.

Applicants with an associate degree in a discipline other than Construction Engineering Technology will be required to complete a specific formal set of courses as specified at the time of admission.

Final approval for admission is based upon recommendations from the Director of the Construction Engineering Technology Program.

## Cooperative Work Study Requirement

The required cooperative work study experience of the Construction Engineering Technology program may begin after the student has completed 64 hours of course work in the Construction Engineering Technology program. This requirement may be satisfied by one of the following options:

1. One semester<sup>1</sup> of cooperative education experience, with appropriate course registration.
2. 120 service hours with a credible construction organization.<sup>2</sup>
3. One calendar year of full-time, continuous, and ongoing employment in a construction management related position.<sup>2</sup>

<sup>1</sup> Summer I and II combined count as one semester for the co-op.

<sup>2</sup> A portfolio of work must be submitted to and approved by the Program Director. The portfolio will include but not be limited to a description of the various work, evidence of work such as supervisor letters or certificates, and a technical paper, addressing a relevant topic associated with the work.

## Requirements for Graduation

- Compliance with the requirements of the general education program as outlined in this Bulletin.
- Completion of the requirements for the associate degree in Construction Engineering Technology (p. 489) at The University of Akron or an approved associate degree program
- Successful completion of a minimum of 120 credits in the B.S. in Construction Engineering Technology Program including the associate degree program, the general education courses, co-op/work study, and Year 3 and Year 4 course requirements.

The following information has official approval of the **Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisors.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	15
	Required Math Course	3
	Accounting Course	3
	Construction Engineering Technology Core	35
	Technical Elective	3
	Credits from completed Associate degree	61
	<b>Total Hours</b>	<b>120</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

The first two years are completed as an AAS degree in Construction Engineering Technology (61 credits total) or similarly-based program. A minimum of 120 credits are required for the degree. All UA general education requirements must be met.

## Required Math Course

Code	Title	Hours
MATH:356	Technical Calculus II	3
	<b>Total Hours</b>	<b>3</b>

## Accounting Course

Code	Title	Hours
ACCT:201	Accounting Principles I	3
or COMM:211	Essentials of Financial Accounting	
	<b>Total Hours</b>	<b>3</b>

## Construction Engineering Technology Core

Code	Title	Hours
COET:352	Field Management & Scheduling	2
COET:354	Foundation Construction Methods	3
COET:356	Safety in Construction	3
COET:358	Advanced Estimating	3
COET:371	Green & Sustainable Building Practices	3
COET:421	Risk Management and Contract Strategies	3
COET:462	Mechanical Service Systems	3
COET:468	Construction Management	3
COET:469	Contracts and Specifications	3
COET:463	Electrical Service Systems	3
COET:466	Hydraulics	3
COET:246	Site Engineering	3
or SURV:101	Basic Surveying	
	<b>Total Hours</b>	<b>35</b>

## Technical Elective

Code	Title	Hours
<b>Select 3 credits of the following:</b>		<b>3</b>
AMET:332	Management of Technology Based Operations	
COET:310	Residential Building Construction	
COET:361	Construction Formwork	
COET:254	Building Codes	
COET:239	Construction Geomechanics	
COET:235	Construction Inspection	
COET:226	Construction Supervision	
COET:362	Advanced Elements of Structures	
COET:465	Heavy Construction Estimating	
COET:471	Understanding LEED Guidelines	
COET:489	Special Topics in Construction	
COET:490	Workshop in Construction	
COET:497	Honors Project	
COET:498	Independent Study in Construction	
	<b>Total Hours</b>	<b>3</b>

## Recommended Sequence

The first two years are completed as an AAS degree in Construction Engineering Technology (61 credits total) or similarly-based program. A minimum of 120 credits are required for the degree. All UA general education requirements for the BS must be met.

**3rd Year**

<b>Fall Semester</b>		<b>Hours</b>
MATH:356	Technical Calculus II	3
COET:352	Field Management & Scheduling <sup>1</sup>	2
COET:354	Foundation Construction Methods <sup>1</sup>	3
	Social Science Requirement <sup>4</sup>	3
	Humanities Requirement	3
Hours		14

**Spring Semester**

COET:356	Safety in Construction <sup>2</sup>	3
COET:358	Advanced Estimating <sup>2</sup>	3
COET:371	Green & Sustainable Building Practices <sup>2</sup>	3
ACCT:201	Accounting Principles I	3
	Arts Requirement	3
Hours		15

**Summer Semester**

BCAS:301	Cooperative Education (15 weeks)	0
Hours		0

**4th Year**

<b>Fall Semester</b>		<b>Hours</b>
COET:462	Mechanical Service Systems	3
COET:468	Construction Management <sup>1</sup>	3
COET:469	Contracts and Specifications	3
	Technical Elective <sup>3</sup>	3
	Arts/Humanities Requirement	3
Hours		15

**Spring Semester**

COET:463	Electrical Service Systems	3
COET:421	Risk Management and Contract Strategies	3
COET:466	Hydraulics <sup>2</sup>	3
COET:226	Construction Supervision	3
	Social Science Requirement <sup>5</sup>	3
Hours		15

Total Hours 59

<sup>1</sup> Traditionally Fall only.

<sup>2</sup> Traditionally Spring only.

<sup>3</sup> Technical Electives are subject to enrollment demands and classroom schedules. See the list below.

<sup>4</sup> Students should choose a course that also meets the requirements for the Domestic Diversity requirement

<sup>5</sup> Students should choose a course that also meets the requirements for the Global Diversity requirement

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

## Construction Estimation, Certificate Certificate in Construction Estimation (299110C)

This certificate program is aimed at developing technical knowledge and skills necessary to accurately estimate construction projects.

This certificate may be earned independently of earning a degree, but all coursework can be applied to an AAS degree or the BS degree in Construction Engineering Technology.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Construction Estimation" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

<b>Code</b>	<b>Title</b>	<b>Hours</b>
Required Courses		16
Total Hours		16

### Required Courses

<b>Code</b>	<b>Title</b>	<b>Hours</b>
COET:131	Building Construction	2
COET:150	Plan Reading	2
COET:245	Construction Estimating	3
COET:358	Advanced Estimating	3
COET:465	Heavy Construction Estimating	3
COET:469	Contracts and Specifications	3
Total Hours		16

## Construction Field Operations, AAS Associate of Applied Science in Construction Field Operations (299111AAS)

### Program Information

The AAS in Construction Field Operations Technology program includes classroom and laboratory experiences which prepare students for careers in the construction industry as field superintendents, foremen, project management assistants, inspectors and other allied industrial positions.

### Career Information

Individuals working in the area of construction field operations technology use knowledge of construction methods and materials, supervision, inspection, and fundamental management skills necessary to support construction projects. They work on residential and commercial buildings, bridges, roads, dams, wastewater treatment systems, or other similar projects. Common jobs assumed by graduates of this program include but are not limited to:

- **Engineering Technician** – use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance.

- **Construction Inspector** – ensure that construction, alteration, or repair complies with building codes and ordinances, zoning regulations, and contract specifications.
- **Construction Superintendent** – runs day-to-day field operations on the construction site and controls the short-term schedule. The superintendent's role also includes quality control and subcontractor coordination responsibilities.
- **Construction Foreman** – the foreman is the tradesman with specialist's knowledge of a given trade and is focused on the overall management of that particular trade on the job site.
- **Field Engineer's Assistant** – Monitors activities at construction sites and reports to Project Engineer and/or Owner's Representative. Contributes to the maintaining of the project schedule and budget, as well as ensuring compliance with the contract specifications.

## Bachelor Degree Program

Upon completion of the Associate of Applied Science in Construction Field Operations, a student may bridge to the Bachelor of Science in Construction Engineering Technology (299103BS). There are a series of bridgework courses in math and science that must first be completed. Please contact the program director for further information.

The following information has official approval of the **Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
MATH:152	Technical Mathematics II	2
MATH:153	Technical Mathematics III	2
COET:129	Professional Topics in Construction <sup>1</sup>	3
COET:131	Building Construction <sup>1</sup>	2
SURV:101	Basic Surveying <sup>1</sup>	3
Hours		15

### Spring Semester

COMM:263	Professional Communications and Presentations	3
COET:150	Plan Reading <sup>2</sup>	2
COET:248	Construction Graphics	3
ENGL:222	Technical Report Writing	3
Select one of the following:		3-4
GEOL:101	Introductory Physical Geology (recommended)	
GEOL:xxx	Natural Science Requirement without Lab	
Hours		14-15

### 2nd Year

#### Fall Semester

SURV:222	Construction Surveying	3
COET:226	Construction Supervision <sup>1</sup>	3
COET:246	Site Engineering <sup>1</sup>	3
COET:237	Materials Testing I <sup>1</sup>	2
COET:310	Residential Building Construction	3
Hours		14

#### Spring Semester

COET:235	Construction Inspection	3
COET:238	Materials Testing II <sup>2</sup>	2
COET:356	Safety in Construction <sup>2</sup>	3
SOWK:230	Human Relations	3
Technical Elective		3
Technical Elective		3
Hours		17
Total Hours		60-61

<sup>1</sup> Traditionally Fall only (See Program Contact).

<sup>2</sup> Traditionally Spring only (See Program Contact).

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

## Construction Management, Certificate

### Certificate in Construction Management (299104C)

This program is aimed at developing technical knowledge and skills necessary to supervise a construction project. This certificate may be earned independently of earning a degree, but all coursework can be applied to an AAS degree or the BS degree in Construction Engineering.

Prerequisite classes must be completed before taking the courses for this certificate. Consult the program for details.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Construction Management" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		16
Total Hours		16

## Required Courses

Code	Title	Hours
COET:352	Field Management & Scheduling	2
COET:358	Advanced Estimating	3
2990:359	Construction Cost Control	3
COET:453	Legal Aspects of Construction	2
COET:468	Construction Management	3
COET:479	CPC Seminar	3
Total Hours		16

Note: Because most of the required courses have prerequisites, student should consult with the program director of the Construction Engineering Technology program for a contract before beginning course work.

## Construction Materials Testing, Certificate Certificate in Materials Testing (299106C)

The purpose of the certificate program in Materials Testing is to train individuals in the processes and procedures involved in standardized laboratory testing of construction related materials. This certificate may be earned independently of earning a degree, but all coursework can be applied to an AAS degree or the BS degree in Construction Engineering Technology.

Some courses required for this certificate require that students have taken MATH:154 and PHYS:261 as a prerequisite.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Materials Testing" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

Code	Title	Hours
Required Courses		16
Total Hours		16

## Required Courses

Code	Title	Hours
COET:125	Statics	3
COET:225	Strength of Materials	3
COET:237	Materials Testing I	2
COET:238	Materials Testing II	2
COET:354	Foundation Construction Methods	3
COET:246	Site Engineering	3
Total Hours		16

## Geographic and Land Information Systems, Certificate

### Certificate in Geographic and Land Information Systems (298105C)

This certificate program in Geographic and Land Information Systems may be earned independently of any degree program. This certificate program has been designed to provide individuals with the basic entry-level skills necessary for those seeking positions as GIS Technicians. Basic emphasis is on understanding and applying geospatial data in digital mapping applications. GIS software will be utilized.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Geographic and Land Information Systems" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

Code	Title	Hours
Required Courses		12
Total Hours		12

## Required Courses

Code	Title	Hours
SURV:105	Introduction to Geographic & Land Information Systems <sup>1</sup>	3
SURV:201	Intermediate Geographic and Land Information Systems	3
SURV:205	Building Geodatabases	3
SURV:445	Applications in GIS using GPS	3
Total Hours		12

<sup>1</sup> This course must be completed before taking any of the other courses for this certificate.

## Heavy Construction, Certificate

### Certificate in Heavy Construction (299107C)

This program is aimed at developing technical knowledge and skills necessary to supervise a highway construction project. This certificate may be earned independently of earning a degree, but all coursework can be applied to an AAS degree or the BS degree in Construction Engineering Technology.

Prerequisite classes must be completed before taking the courses for this certificate. Consult the program for details.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but

is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Heavy Construction" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		17
Total Hours		17

## Required Courses

Code	Title	Hours
COET:246	Site Engineering	3
COET:352	Field Management & Scheduling	2
COET:358	Advanced Estimating	3
COET:361	Construction Formwork	3
COET:465	Heavy Construction Estimating	3
COET:466	Hydraulics	3
Total Hours		17

Note: Because most of the required courses have prerequisites, students should consult with the program director of the Construction Engineering Technology program for a contract before beginning course work.

## Land Surveying, AAS

### Associate of Applied Science in Land Surveying (298109AAS)

More on the Land Surveying and Surveying and Mapping programs (<https://www.uakron.edu/engineering/ce/undergraduate/surveying-mapping/>)

## Program Description

This program prepares graduates to work as surveying technicians under the direction of a professional registered surveyor. It is designed to provide a foundation in mathematics, natural science, and communication skills as well as the surveying skills necessary to become a Certified Surveying Technician (CST) under the National Society of Professional Surveyors' (NSPS) testing program. Students earning the AAS in Land Surveying can also continue on to earn the BS in Surveying and Mapping with an additional two years of full-time study.

This degree program is accredited by the Applied and Natural Science Accreditation Commission of ABET, <http://www.abet.org>.

## Bachelor Degree Program

Upon completion of the Associate of Applied Science in Land Surveying, a student may proceed to the Bachelor of Science in Surveying and Mapping (p. 498) (298103BS).

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are

established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education		21
Additional Math and Natural Science		6
Geographic Information Systems		3
Surveying Core		28
Technical Electives		2
Total Hours		60

## General Education

Code	Title	Hours
<b>Discipline-Specific General Education</b>		
MATH:153	Technical Mathematics III (for Mathematics, Statistics, and Logic Requirement)	2
MATH:154	Technical Mathematics IV (for Mathematics, Statistics, and Logic Requirement)	3
GEOG:100	Introduction to Geography (for Social Science requirement)	3
GEOL:101	Introductory Physical Geology (for Natural Science)	4
<b>Other General Education</b>		
	Writing First Course	3
	Speaking	3
	Social Science <sup>1</sup>	3
Total Hours		21

<sup>1</sup> This class, required for the AAS in Land Surveying, will be used to help meet the BS General Education Social Science Requirement for students continuing on for the BS in Surveying and Mapping. Students are advised to choose a course that also meets one of the BS General Education Diversity Requirements.

## Additional Math and Natural Science

Code	Title	Hours
MATH:260	Advanced Trigonometry	2
PHYS:160	Technical Physics: Mechanics	4
Total Hours		6

## Geographic Information Systems

Code	Title	Hours
SURV:105	Introduction to Geographic & Land Information Systems	3
Total Hours		3



## Surveying Core

Code	Title	Hours
SURV:100	Introduction to Geomatics	2
SURV:101	Basic Surveying	3
SURV:102	Topographic Surveying	2
SURV:123	Surveying Field Practice	2
SURV:155	Computer Applications in Surveying	3
SURV:170	Surveying Drafting	3
SURV:222	Construction Surveying	3
SURV:225	Advanced Surveying	3
SURV:228	Boundary Surveying	3
SURV:251	CST Seminar	1
SURV:350	Mapping with Drones	3
Total Hours		28

## Technical Electives (AAS)

Code	Title	Hours
<b>Select a minimum of two credits from the following:</b> <sup>1,2</sup>		<b>2</b>
SURV:325	Safety for Surveyors	
SURV:335	The Business of Surveying	
SURV:445	Applications in GIS using GPS	
SURV:450	Topics in Professional Practice	
SURV:426	History of Surveying To 1785	
SURV:428	History of Surveying Since 1785	
SURV:489	Special Topics in Surveying	
SURV:498	Independent Study	
SURV:490	Workshop in Surveying	

<sup>1</sup> With approval of the program, other Surveying classes may be used to meet the Technical Elective requirement.

<sup>2</sup> Students continuing for the BS in Surveying and Mapping will need additional technical elective credits for that program if they choose to fulfill the AAS Technical Elective requirement by taking a class that is required for the BS.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### 1st Year

Fall Semester	Hours	
Writing First Course	3	
MATH:153	Technical Mathematics III	2
SURV:100	Introduction to Geomatics	2
SURV:101	Basic Surveying (Sch. lab)	3
SURV:170	Surveying Drafting (Sch. lab) <sup>1</sup>	3
Hours		13

### Spring Semester

MATH:154	Technical Mathematics IV	3
MATH:260	Advanced Trigonometry <sup>2</sup>	2
SURV:102	Topographic Surveying (Sch. lab)	2
SURV:155	Computer Applications in Surveying (Sch. lab)	3
PHYS:261	Physics for Life Sciences I	4
Hours		14

### Summer Semester

SURV:123	Surveying Field Practice	2
Hours		2

### 2nd Year

#### Fall Semester

SURV:222	Construction Surveying (Sch. lab) <sup>1</sup>	3
SURV:228	Boundary Surveying (Sch. lab)	3
SURV:350	Mapping with Drones	3
	Surveying Elective <sup>3</sup>	2
	Social Sciences Requirement <sup>5</sup>	3
Hours		14

#### Spring Semester

	Speaking Requirement	3
SURV:225	Advanced Surveying (Sch. lab) <sup>2</sup>	3
SURV:251	CST Seminar <sup>4</sup>	1
SURV:105	Introduction to Geographic & Land Information Systems (Sch. lab)	3
GEOG:100	Introduction to Geography	3
GEOL:101	Introductory Physical Geology	4
Hours		17
Total Hours		60

<sup>1</sup> Traditionally Fall only (See Program Contact).

<sup>2</sup> Traditionally Spring only (See Program Contact).

<sup>3</sup> Surveying Electives - see list below.

<sup>4</sup> Students must take the National Society of Professional Surveyors (NSPS) Certified Surveying Technician (CST) Exam Level 1. Visit <https://www.nspis.us.com/default.aspx> for information about the CST program.

<sup>5</sup> This class, required for the AAS in Land Surveying, will be used to help meet the BS General Education Social Science Requirement for students continuing on for the BS in Surveying and Mapping. Students are advised to choose a course that also meets one of the BS General Education Diversity Requirements.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.**

## Residential Building Technology, Certificate

### Certificate in Residential Building Technology (299105C)

The certificate program in Residential Building Technology is aimed at providing knowledge and skills to anyone planning to work in the building

construction industry. This certificate may be earned independently of earning a degree, but all coursework can be applied to an AAS degree or the BS degree in Construction Engineering Technology. Some courses have prerequisites, consult department with questions about requirements.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Residential Building Technology" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		13
Total Hours		13

## Required Courses

Code	Title	Hours
COET:131	Building Construction	2
COET:150	Plan Reading	2
COET:245	Construction Estimating	3
COET:310	Residential Building Construction	3
COET:356	Safety in Construction	3
Total Hours		13

# Residential Inspection, Certificate

## Certificate in Residential Inspection (299109C)

This certificate program is aimed at developing technical knowledge and skills necessary to conduct residential inspection. This certificate may be earned independently of earning a degree, but all coursework can be applied to an AAS degree or the BS degree in Construction Engineering Technology. Some courses have prerequisites, consult department with questions about requirements.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Residential Inspection" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		13
Total Hours		13

## Required Courses

Code	Title	Hours
COET:131	Building Construction	2
COET:150	Plan Reading	2
COET:310	Residential Building Construction	3
COET:462	Mechanical Service Systems	3
COET:463	Electrical Service Systems	3
Total Hours		13

## Surveying and Mapping, BS

### Bachelor of Science in Surveying and Mapping (298103BS)

More on the Land Surveying and Surveying and Mapping programs (<https://www.uakron.edu/engineering/ce/undergraduate/surveying-mapping/>)

## Program Information and Program Description

The Bachelor of Science in Surveying and Mapping program is an upper level degree program designed to provide the student with additional education beyond the A.A.S. degree in Land Surveying. This degree is also designed to meet the formal education requirements for registration as a Professional Surveyor in the state of Ohio.

This upper level degree program is defined as follows:

- The first two years are completed as an AAS degree in Land Surveying (p. 496) or similarly based program.
- Two of the remaining three years are for the completion of prescribed course work.
- The remaining year of the three years is devoted to a cooperative work experience in the surveying and mapping field. The student normally enters the co-op segment between the junior and senior years.

The BS in Surveying and Mapping degree program includes classroom, laboratory, and industry experiences which stress the application of established surveying and mapping knowledge.

This degree program is accredited by the Applied and Natural Science Accreditation Commission of ABET, <http://www.abet.org>.

## Requirements for Admission

Applicants for the Surveying and Mapping program must hold an associate degree in Land Surveying from an accredited program or provide an equivalent academic background. The applicant must meet all minimum requirements for admission into The University of Akron. Applicants with an associate degree in a discipline other than Land Surveying will be required to complete a specific formal set of courses as specified at the time of admission. Final approval for admission is based upon recommendations from the Director of the Surveying and Mapping Program.

## Cooperative Work Study Requirement

The required Cooperative Work Study experience of the Surveying and Mapping program consists of 52 weeks of surveying work experience

which may begin after the student has completed 34 hours of course work in the Surveying and Mapping program. This program may be satisfied by any one of the following options:

1. One calendar year with appropriate cooperative education course registration.
2. Three semesters (Summer I and II counts as one semester for the co-op) with appropriate cooperative education course registration.
3. Department review of prior or concurrent work experience.

Students having prior or concurrent work experience should submit to the Surveying and Mapping Co-op Review Committee appropriate documentation before signing their program contract. The Surveying and Mapping Co-op Review Committee will determine whether this work experience satisfies the co-op requirement. All students must be cleared through the Cooperative Education Office.

## Requirements for Graduation

- Compliance with the requirements of the general education program as outlined in the Bulletin.
- Completion of the requirements for the associate degree in Land Surveying at The University of Akron or an approved associate degree program. Students transferring from another institution must have their transcripts evaluated to ensure that they have the required number of credits in surveying courses. Those found deficient must complete lower level surveying course work before upper level surveying and mapping courses can be taken.
- Successful completion of a minimum of 120 credits in the B.S. in Surveying and Mapping program including the associate degree program, the general education courses, the one-year co-op, and the Year 3, Year 4, and Year 5 course requirements.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		
	General Education	15
	Mathematics	7
	Geographic Information Systems	3
	Surveying Core	28
	Safety and Business Practices	3
	Technical Electives	4
Total Hours		60

- \* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours		34

## General Education (beyond the AAS Land Surveying)

Code	Title	Hours
<b>Discipline-Specific General Education</b>		
ENGL:222	Technical Report Writing (for Writing Second Course Requirement)	3
PHIL:120	Introduction to Ethics	3
<b>Other General Education</b> <sup>1, 2</sup>		
	Fine Arts and Humanities Requirement	9
Total Hours		15

<sup>1</sup> Students are advised that the General Education classes should be chosen to also meet the Domestic Diversity and Global Diversity Requirements; otherwise, extra General Education classes may be needed to complete these requirements.

<sup>2</sup> Students entering with associate degrees other than the AAS Land Surveying at UA may have BS General Education requirements to complete beyond those shown. Students complete the following BS General Education requirements during the AAS Land Surveying: Mathematics, Statistics, and Logic; Speaking; Writing First Course; Natural Science with lab (7 credits); and three credits of Social Science.

## Mathematics

Code	Title	Hours
MATH:255	Technical Calculus I	3
MATH:345	Technical Data Analysis	2
MATH:360	Advanced Mathematics for Surveyors	2
Total Hours		7

## Geographic Information Systems

Code	Title	Hours
SURV:201	Intermediate Geographic and Land Information Systems	3
Total Hours		3

## Surveying Core

Code	Title	Hours
SURV:310	Survey Computations & Adjustments	2
SURV:315	Boundary Control & Legal Principles	3
SURV:330	Applied Photogrammetry	3
SURV:340	Cadastral Surveying	2
SURV:410	LiDAR and Laser Scanning	2
SURV:415	Legal Aspects of Surveying	3
SURV:421	Subdivision Design	3
SURV:422	Global Positioning System Surveying	3
SURV:427	Ohio Lands	2
SURV:430	Surveying Project	3
SURV:431	Senior Seminar	2
Total Hours		28

## Safety and Business Practices

Code	Title	Hours
<b>This requirement is met with both SURV:325 and SURV:335, or alternatively with CIVE:471</b>		
SURV:325 & SURV:335 or CIVE:471	Safety for Surveyors and The Business of Surveying or Construction Administration	3
Total Hours		3

## Technical Electives

Code	Title	Hours
<b>Take four credits from the following:</b>		
		4
SURV:325	Safety for Surveyors <sup>1</sup>	
SURV:335	The Business of Surveying <sup>1</sup>	
SURV:426	History of Surveying To 1785	
SURV:428	History of Surveying Since 1785	
SURV:445	Applications in GIS using GPS	
SURV:450	Topics in Professional Practice	
SURV:489	Special Topics in Surveying	
SURV:490	Workshop in Surveying	
SURV:495	Internship: Surveying and Mapping	
SURV:497	Surveying Honors Project	

SURV:498	Independent Study
SURV:205	Building Geodatabases

<sup>1</sup> SURV:325 and SURV:335 can be used as Technical Electives only if not used for the Safety and Business Practices requirement.

## Recommended Sequence

The first two years of the BS in Surveying and Mapping program are completed as an AAS in Land Surveying (60 credits) or similar associate degree. A minimum of 120 credit hours are required for this degree. All University General Education requirements must be met.

### 2nd Year

Summer Semester	Hours
GNEN:300 Cooperative Education Work Period <sup>3</sup>	0
Hours	0

### 3rd Year

Fall Semester	Hours
MATH:345 Technical Data Analysis	2
SURV:310 Survey Computations & Adjustments	2
SURV:201 Intermediate Geographic and Land Information Systems	3
ENGL:222 Technical Report Writing	3
PHIL:120 Introduction to Ethics	3
SURV:325 Safety for Surveyors or Construction Administration & SURV:335 or CIVE:471	3
Hours	16

### Spring Semester

MATH:255 Technical Calculus I	3
MATH:360 Advanced Mathematics for Surveyors <sup>5</sup>	2
SURV:315 Boundary Control & Legal Principles <sup>1</sup>	3
SURV:330 Applied Photogrammetry	3
SURV:340 Cadastral Surveying	2
Arts and Humanities requirement <sup>4</sup>	3
Hours	16

### Summer Semester

GNEN:403 Cooperative Education Work Period	0
Hours	0

### 4th Year

Fall Semester	Hours
SURV:415 Legal Aspects of Surveying	3
SURV:422 Global Positioning System Surveying	3
SURV:430 Surveying Project	3
SURV:450 Topics in Professional Practice (or other 2-credit Technical Elective)	2
Arts and Humanities requirement <sup>4</sup>	3
Hours	14

### Spring Semester

SURV:410 LiDAR and Laser Scanning	2
SURV:421 Subdivision Design	3
SURV:427 Ohio Lands	2
SURV:431 Senior Seminar	2

SURV:489	Special Topics in Surveying (or other 2-credit Technical Elective)	1-3
	Arts and Humanities requirement <sup>4</sup>	3
	Hours	13-15
	Total Hours	59-61

<sup>1</sup> Traditionally Spring only (See Program Contact).

<sup>2</sup> Traditionally Fall only (See Program Contact).

<sup>3</sup> This is the semester after finishing the AAS in Land Surveying. If a student is not able to complete a co-op this summer, the two co-op terms can be completed in the summers following the third and fourth year, for a summer graduation with the BS.

<sup>4</sup> Students are advised that the General Education classes should be chosen to also meet the Domestic Diversity and Global Diversity Requirements; otherwise, extra General Education classes may be needed to complete these requirements.

<sup>5</sup> This class is typically offered only **every other year** in Spring. Students should take care to take it as early as they can.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

## Surveying for Civil Engineers, Certificate

### Certificate in Surveying for Civil Engineers (298111C)

The Surveying for Civil Engineers certificate program is designed for BSCE graduates to be able to meet the academic requirements of Ohio Revised Code 4733.11 - Professional Surveyor License Qualifications. All courses taken may be applied to an A.A.S. degree in Land Surveying and/or the B.S. degree in Surveying and Mapping.

The following information has official approval of **The Department of Civil Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Surveying for Civil Engineers" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

Code	Title	Hours
Required Courses		17
Total Hours		17

### Required Courses

Code	Title	Hours
SURV:222	Construction Surveying <sup>1</sup>	3
SURV:225	Advanced Surveying <sup>1</sup>	3
SURV:228	Boundary Surveying <sup>1</sup>	3
SURV:315	Boundary Control & Legal Principles <sup>2</sup>	3

SURV:415	Legal Aspects of Surveying <sup>2</sup>	3
SURV:427	Ohio Lands <sup>2</sup>	2
Total Hours		17

<sup>1</sup> Courses may be offered in a web-based format.

<sup>2</sup> Courses may be offered in an online format.

## Surveying, Certificate Certificate in Surveying (430011C)

The following information has official approval of The University of Akron's College of Engineering and Polymer Science but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, and prerequisites, among others.

The Surveying 30 Credit Certificate program is designed to help bachelor's degree (any program) graduates to be able to meet the academic requirements of Professional Surveyor license qualifications as approved by the Ohio Board of Registration for Professional Engineers and Surveyors. Please check with the State Board for any additional math, science, and general education requirements. All courses from the suggested list may also be applied to an A.A.S. degree in Land Surveying and/or the B.S. degree in Surveying and Mapping.

To prepare for the rigorous National Council of Examiners for Engineering and Surveying Fundamentals of Surveying (FS) exam, the first of two national exams for licensing, students are encouraged to complete 30 credits from the recommended list of courses. The certificate courses must be completed with a minimum overall grade point average of 2.0 for the certificate to be noted on the student's record.

### Requirements for Admission

Students should have completed College Algebra and Trigonometry or Precalculus with a C or better before beginning the certificate. As an alternative, students may enroll in Technical Mathematics III as a corequisite when beginning the certificate courses.

The following information has official approval of the **Department of Civil Engineering** and the **College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Surveying" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

### Summary

Code	Title	Hours
Coursework		30
Total Hours		30

Any Surveying and Mapping course can be counted towards the 30-credit requirement to earn the certificate, except that students may choose no more than six credits from among the courses related to Geographic Information systems. The program recommends that students choose

from the courses marked RECOMMENDED in the Course List, to best prepare for the content of the Fundamentals of Surveying (FS) exam. All course prerequisites must be met.

## Coursework

Code	Title	Hours
<b>Select 30 credits from among the following:</b>		<b>30</b>
SURV:xxx		
SURV:101	Basic Surveying <small>RECOMMENDED</small>	
SURV:222	Construction Surveying <small>RECOMMENDED</small>	
SURV:225	Advanced Surveying <small>RECOMMENDED</small>	
SURV:228	Boundary Surveying <small>RECOMMENDED</small>	
SURV:310	Survey Computations & Adjustments <small>RECOMMENDED</small>	
SURV:315	Boundary Control & Legal Principles <small>RECOMMENDED</small>	
SURV:330	Applied Photogrammetry <small>RECOMMENDED</small>	
SURV:340	Cadastral Surveying <small>RECOMMENDED</small>	
SURV:415	Legal Aspects of Surveying <small>RECOMMENDED</small>	
SURV:422	Global Positioning System Surveying <small>RECOMMENDED</small>	
SURV:427	Ohio Lands <small>RECOMMENDED</small>	
SURV:431	Senior Seminar <small>RECOMMENDED</small>	
<i>The 30 credits may include no more than 6 credits of courses related to Geographic Information Systems:</i>		
SURV:105	Introduction to Geographic & Land Information Systems <small>RECOMMENDED</small>	
SURV:201	Intermediate Geographic and Land Information Systems	
SURV:205	Building Geodatabases	
Total Hours		30

## Computer Science

The Department of Computer Science offers undergraduate programs leading to the Bachelor of Science in Computer Science, the Bachelor of Science in Computer Information Systems, and the Associate of Applied Business in Computer Information Systems, as well as minors and certificates. The department also offers a graduate program leading to an Master of Science in Computer Science.

- Artificial Intelligence and Machine Learning, Certificate (p. 507)
- Computer Information System, Programming Option, AAB (p. 507)
- Computer Information Systems Programming Specialist, Minor (p. 509)
- Computer Information Systems Programming, Certificate (p. 509)
- Computer Information Systems, Computer Networking Option, Cisco Track, AAB (p. 510)
- Computer Information Systems, Cybersecurity Option, BS (p. 512)
- Computer Information Systems, Networking Option, BS (p. 514)
- Computer Information Systems, Programming Option, BS (p. 516)
- Computer Science, Certificate (p. 519)
- Computer Science, Management, BSCS (p. 519)
- Computer Science, Minor (p. 522)
- Computer Science, Systems, BSCS (p. 522)
- Computer Security, Certificate (p. 524)
- Computer Security, Minor (p. 525)

## Computer Information Systems (CISS)

### CISS:105 Introduction to Computers and Application Software (3 Credits)

Overview of basic computer concepts, electronic mail and Internet terminologies. Introductory-level instruction and hands-on experience in word processing, spreadsheet, database and presentation software. (Formerly 2440:105)

### CISS:121 Introduction of Logic/Programming (3 Credits)

Prerequisite: CISS 105 with a grade of C or better or placement test. An introduction to business problem solving using computer-based solutions. Topics include structured design, documentation and modularity. Includes a component of hands-on programming. (Formerly 2440:121)

### CISS:125 Spreadsheet Software (2 Credits)

Prerequisite: CISS 105 with a grade of C or better or placement test. Emphasizes mastery of spreadsheet applications using Excel. (Formerly 2440:125)

### CISS:134 Cybersecurity Fundamentals (3 Credits)

Prerequisite: CISS 105 with a grade of C or better or placement test. Fundamentals of malware, social theories, protocols, firewalls, computer forensics, intrusion detection, prevention and containment incidents, incident response, and cybersecurity policy. (Formerly 2440:134)

### CISS:140 Internet Tools (3 Credits)

Prerequisite: CISS 105 with a grade of C or better or placement test. Students will learn to create web pages using HTML and enhance their documents by including hyperlinks, tables, forms, frames and images in their HTML code. (Formerly 2440:140)

### CISS:141 Web Server Administration (3 Credits)

Prerequisite: CISS 105 with a grade of C or better or placement test. Provides Web server administration guidelines such as selecting software/hardware, domain name registration, analyzing security/legal issues, and implementing marketing strategies. (Formerly 2440:141)

### CISS:145 Introduction to Unix/Linux (3 Credits)

Prerequisite: CISS 105 with a grade of C or better or placement test. This course explores the vital functions that an operating system performs. A multi-user operating system is studied from a functional and hands-on approach. (Formerly 2440:145)

### CISS:160 JAVA Programming (3 Credits)

Prerequisite: CISS 121 with a grade of C or better. Course introduces the JAVA programming language. Programming techniques are demonstrated through the coding, testing and debugging of JAVA applications and applets. (Formerly 2440:160)

### CISS:170 Visual BASIC (3 Credits)

Prerequisite: CISS 121 with a grade of C or better. Course includes hands-on experience with Visual BASIC, design of Graphical User Interface (GUI) applications, event-driven programming, linking of windows, and accessing relational databases. (Formerly 2440:170)

### CISS:180 Introduction to Database Management (3 Credits)

Prerequisite: CISS 121 with a grade of C or better. Overview of database system models and functions. Covers introduction to database design and relational database definition and manipulation using SQL. (Formerly 2440:180)

### CISS:201 Networking Basics (3 Credits)

Prerequisite: CISS 105 with a grade of C or better or placement exam. The introductory course in networking. It includes study of the common network protocols, structures, and models. Basic router and switch configurations are introduced. (Formerly 2440:201)

**CISS:202 Router and Routing Basics (3 Credits)**

Prerequisite: CISS 201 with a grade of C or better. The second course to networking. It covers basic router configuration as well as routed and routing protocols. (Formerly 2440:202)

**CISS:203 Switching Basics and Wireless (3 Credits)**

Prerequisites: CISS 201 and CISS 202 with a grade of C or better in both. The third of four courses leading to the CCNA certification. The course covers switching basics and basic wireless networking. (Formerly 2440:203)

**CISS:204 WAN Technologies (3 Credits)**

Prerequisites: CISS 202 and CISS 203 (each with a grade of C or better). The fourth of four courses leading to the CCNA certification. Topics covered include IP services and Wide Area Network theory and design. (Formerly 2440:204)

**CISS:210 Client/Server Programming (3 Credits)**

Prerequisite: CISS 180 with a grade of C- or better. Introduces student to client/server programming concepts and implementations. Includes hands-on experience to show integration of databases in client-server program development. (Formerly 2440:210)

**CISS:211 Interactive Web Programming (3 Credits)**

Prerequisites: CISS 121 and CISS 140 (each with a grade of C or better). Provides students with instruction on interactive Web programming using XML and DHTML (HTML/XHTML/HTML5, CSS, and Web scripting). (Formerly 2440:211)

**CISS:212 Multimedia & Interactive Web Elements (3 Credits)**

Prerequisite: CISS 140 with a grade of C or better. Reviews and demonstrates web tools and techniques like RealAudio, Shockwave, QuickTime, video conferencing and other dynamic graphical elements to enhance Web-based communication. Multimedia software may change to reflect current technology. (Formerly 2440:212)

**CISS:240 Computer Information Systems Internship (3 Credits)**

Prerequisites: CISS 241 or [CISS 202 and CISS 247] each with a grade of C- or better and permission of department. Provides student experience in computing/information technology in the workplace. (Formerly 2440:240)

**CISS:241 Systems Analysis & Design (3 Credits)**

Prerequisites: CISS 180 and [CISS 160 or CISS 170 or CISS 256], each with a grade of C or better. Covers all phases of business systems analysis, design, development, and implementation. Such principles as system flowcharting and file and document design emphasized. (Formerly 2440:241)

**CISS:247 Hardware Support (3 Credits)**

Prerequisite: Admission to program or permission of the program director. This course introduces the student to the basic skills required to troubleshoot, maintain and repair computers. (Formerly 2440:247)

**CISS:248 Server Hardware Support (3 Credits)**

Prerequisite: CISS 247 with a grade of C or better. This course introduces the student to server hardware and expands student knowledge of client hardware. (Formerly 2440:248)

**CISS:251 CIS Projects (3 Credits)**

Prerequisite: CISS 241 with a grade of C or better or permission. Using a simulated work environment, project teams are set up and required to analyze an unstructured problem, prepare alternative designs and implement a solution. (Formerly 2440:251)

**CISS:256 C++ Programming (3 Credits)**

Prerequisite: CISS 121 with a grade of C or better. This course explores object-oriented programming through C++ program development. (Formerly 2440:256)

**CISS:282 Microsoft Networking II (3 Credits)**

Prerequisite: 2440:281 with a grade of C or better. Provides the knowledge and skills necessary to manage and maintain computers with the Windows Server 2008 Network Operating System. This course will also help prepare you to pass the MCTS Exam. (Formerly 2440:282)

**CISS:283 Microsoft Networking III (3 Credits)**

Prerequisite: CISS 282 with a grade of C or better. Provides the knowledge and skills necessary to manage and maintain an active directory service hosted by the Server 2008 Network Operating System. This course also helps prepare the student to pass the MCTS Exam. (Formerly 2440:283)

**CISS:284 Microsoft Networking IV (3 Credits)**

Prerequisite: CISS 283 with a grade of C or better or passing score on the 70-640 Microsoft Certification Exam. This course will provide you with the knowledge and skill necessary to install, configure, manage and maintain the server services provided with Server 2008. (Formerly 2440:284)

**CISS:290 Special Topics: Computer Information Systems (1-5 Credits)**

Selected topics or subject areas of interest in computer information systems. (Formerly 2440:290)

**CISS:300 Network Authentication and Security (3 Credits)**

Prerequisites: CISS 204 with a grade of C or better and junior or better standing. This course focuses on network security issues related to conducting business over the Internet, including authentication, authorization, and firewalls. (Formerly 2440:300)

**CISS:303 Voice, Data, and Video (3 Credits)**

Prerequisites: CISS 204 with a grade of C or better and junior or better standing. This course focuses on network issues related to the integration of voice, data, and video over the same network media and equipment. (Formerly 2440:303)

**CISS:306 Ethics & Law in Information Technology (3 Credits)**

Prerequisite: Junior or greater standing. This course is designed to introduce the student to the central issues concerning intellectual property, privacy, and copyright law as it pertains to the development and distribution of software systems. (Formerly 2440:306)

**CISS:310 Wireless Networking (3 Credits)**

Prerequisite: CISS 204 with a grade of C or better or permission. This course provides students with various wireless networking technologies. (Formerly 2440:310)

**CISS:311 Client/Server Programming II (3 Credits)**

Prerequisite: CISS 210 with a grade of C or better. Discusses tools for client-server programming, distributed computing, socket programming, and security implementation. (Formerly 2440:311)

**CISS:321 Server-Side Scripting (3 Credits)**

Prerequisites: CISS 121 and CISS 140, both with a grade of C or better. This course provides students with instruction on using server-side scripting languages to develop interactive client/server web-based applications. (Formerly 2440:321)

**CISS:331 Programming for Cybersecurity (3 Credits)**

Prerequisites: CISS 121 and CISS 145 with grades of C or better. This course will introduce basic programming techniques used for ethical hacking using the Linux Operating System and other tools that are commonly used in cybersecurity. (Formerly 2440:331)

**CISS:360 Java Programming II (3 Credits)**

Prerequisite: CISS 160 with a grade of C or better. This course covers advanced object-oriented programming concepts, GUI programming, web application programming, network and security programming, JavaBeans and explores aggregations. (Formerly 2440:360)

**CISS:365 E-Business Application Development (3 Credits)**

Prerequisites: CISS 211 and CISS 321, both with a grade of C or better. This course covers web programming techniques to develop Web-based e-business solution and covers e-business models and business issues. (Formerly 2440:365)

**CISS:370 Visual Basic Programming II (3 Credits)**

Prerequisite: CISS 170 with a grade of C or better. This course explores object-oriented programming through Visual Basic program development at a more advanced level, with more attention to business applications. (Formerly 2440:370)

**CISS:388 Advanced UNIX/Linux (3 Credits)**

Prerequisites: CISS 145 with a grade of C or better and junior or greater standing. This course provides students with the necessary knowledge and skills to perform basic administrative tasks on a UNIX/Linux operating system. (Formerly 2440:388)

**CISS:400 Advanced Routing (4 Credits)**

Prerequisites: CISS 201, CISS 202, CISS 203, CISS 204, CISS 300, all with a grade of C or better, and MATH 154; or possess a current CCNA certification and be able to configure a router to the CCNA standards. This course focuses on advanced routing protocols and features and complies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Advanced Routing course. (Formerly 2440:400)

**CISS:401 Multilayer Switching (3 Credits)**

Prerequisites: Must have a current CCNA certification and be able to program a router to the CCNA standards (requires permission), or must have successfully completed all four Cisco Networking Academy CCNA courses from an accredited academy (CISS 201, CISS 202, CISS 203, CISS 204, all with a grade of C or better). This course focuses on switching protocols and features. This course complies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Switching course. (Formerly 2440:401)

**CISS:402 Troubleshooting Complex IP-based Networks (4 Credits)**

Prerequisites: CISS 400 and CISS 401 with grades of C or better or permission. This course focuses on methodologies and hands-on skills needed to maintain and troubleshoot complex IP networks. (Formerly 2440:402)

**CISS:430 Network Monitoring and Management (3 Credits)**

Prerequisite: CISS 204 with a grade of C or better or junior or greater standing. This course provides students the basic theory and practical application of network monitoring and management skills. (Formerly 2440:430)

**CISS:431 UNIX-based Systems Security (3 Credits)**

Prerequisites: CISS 388 with a grade of C or better and junior or greater standing. This course will introduce the various methods used to secure UNIX-based operating systems (Apple iOS and Android Operating System) on a computer network. (Formerly 2440:431)

**CISS:441 Cyber Security (3 Credits)**

Prerequisites: MATH 361, DGFR 441, and CISS 388 with a grades of C or better and junior or greater standing. This course will address issues involving hacking, malware, social theories, protocols, firewalls, intrusion detection, the prevention and containment of intrusion incidents, the incident response process, and computer forensic examination. (Formerly 2440:441)

**CISS:450 Applied Data Mining (3 Credits)**

Prerequisites: MATH 345 and junior or greater standing. This course is designed to introduce the student to the central issues in business data mining. (Formerly 2440:450)

**CISS:451 Senior Programming Projects (3 Credits)**

Prerequisite: Senior or greater standing. This course is the capstone course where senior students will apply learned material by simulating a realistic work environment. (Formerly 2440:451)

**CISS:452 CIS Practicum (3 Credits)**

Prerequisite: Permission. Provides students with experience in computer information systems operation and maintenance in the workplace. Practicum must be relevant to the specialization area. (Formerly 2440:452)

**CISS:456 C++ Programming II (3 Credits)**

Prerequisite: CISS 256 with a grade of C or better. This course explores object-oriented programming through C++ program development at a more advanced level. Also considers Visual programming and connection to databases. (Formerly 2440:456)

**CISS:465 Data Communications & Networking (3 Credits)**

Prerequisite: Junior or greater standing. Introduces students to business data communication and networking concepts. The OSI model, various network configuration and popular industry communication protocols are explored at an advanced level. (Formerly 2440:465)

**CISS:470 Database Management II (3 Credits)**

Prerequisite: CISS 180 with a grade of C or better. Covers advanced database design, definition, manipulation, and administration tasks with emphasis placed on the relational model, the object-oriented model, and client/server systems. (Formerly 2440:470)

**CISS:480 Current Topics in Computer Information Systems (3 Credits)**

Prerequisite: Permission. Seminar in topics of current interest in information technology or special individual topics in information technology. (Formerly 2440:480)

**CISS:490 CIS Senior Networking Projects (3 Credits)**

Prerequisites: CISS 388, CISS 400, and CISS 401 with grades of C or better or permission. The capstone course is used to research, document and implement current and advanced IT topics using knowledge and skills developed from networking courses. (Formerly 2440:490)

**CISS:491 CIS Senior Cybersecurity Project (3 Credits)**

Prerequisites: DGFR 442, DGFR 443, and CISS 388 with grades of C or greater or permission. This is the capstone course for the CIS Digital Forensics and Cybersecurity degree options. (Formerly 2440:491)

## Computer Science (CPSC)

**CPSC:101 Essentials of Computer Science (3 Credits)**

Explore major topics in Computer Science - computing systems, data representation, hardware, programming topics, and important applications such as networks, robotics, databases, and gaming. (Formerly 3460:101)

**CPSC:125 Descriptive Computer Science (2 Credits)**

Computer literacy: terminology; methods, media for data representation, storage; elements of a computing system; data organization. (Formerly 3460:125)

**CPSC:126 Introduction to Visual Basic Programming (3 Credits)**

Windows GUI and Microsoft's Visual BASIC programming environment. Design of user interfaces, event-driven programming, basic control structures, simple variables, arrays, and sequential files. (Formerly 3460:126)



**CPSC:200 Programming for Data Science (4 Credits)**

Prerequisite: MATH 145 or MATH 149. Introductory programming for data-intensive applications including data collection, pre-processing/cleansing, analysis, and visualization, using libraries for processing of large data sets. Designed as a first programming course for non-majors in the sciences (Formerly 3460:200)

**CPSC:209 Computer Science I (4 Credits)**

Prerequisite: Completion of MATH 145 or MATH 149 with a grade of C- or better or equivalent. Introduction to problem-solving methods and algorithms. Programming in a high-level language including how to design, code, debug and document programs with good programming style. (Formerly 3460:209)

**CPSC:210 Computer Science II (4 Credits)**

Prerequisites: CPSC 209 and MATH 208 with a grade of C- or better. Dynamic memory allocation methods, elementary data structures, internal representations, and associated algorithms. Topics include lists, stacks, queues, trees, and sorting methods. (Formerly 3460:210)

**CPSC:289 Selected Topics in Computer Science (1-3 Credits)**

Prerequisite: Permission. Selected topics of interest in computer science. (Formerly 3460:289)

**CPSC:306 Assembly and System Programming (4 Credits)**

Prerequisite: Completion of CPSC 210 or equivalent with a grade of C- or better. Basic computer organization, digital logic, and data representation. Programming in assembly and C languages on a typical digital computer. (Formerly 3460:306)

**CPSC:307 Internet Systems Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 or equivalent with a grade of C- or better. Overview of current programming languages, tool and scripting technologies for the Internet and World Wide Web. (Formerly 3460:307)

**CPSC:316 Data Structures (3 Credits)**

Prerequisites: CPSC 210 and [MATH 221 or MATH 210] with grades of C- or better. A continuation of topics in CPSC 210. Topics include: graphs and graph algorithms, external sorting, hashing, advanced tree and file structures. (Formerly 3460:316)

**CPSC:389 Intermediate Topics in Computer Science (1-3 Credits)**

Prerequisite: Permission of instructor. Selected topics of interest in computer science at an intermediate level. (Formerly 3460:389)

**CPSC:395 Internship in Computer Science (1-12 Credits)**

Prerequisites: Completion of CPSC 209 and CPSC 210 with grades of C- or better, and permission of a faculty supervisor. Placement in industry for experience related to computer science. (May be repeated to a maximum of 12 credit hours. No more than three credits may be applied towards a computer science major.) (Formerly 3460:395)

**CPSC:406 Introduction to C & UNIX (3 Credits)**

Prerequisite: Programming experience. Syntax of C with flow structures, pointers, and command line concepts. For UNIX, shell scripts, UNIX file structure, system calls and interprocess communication protocols. (Not an approved mathematics and computer science major, minor, or certificate elective.) (Formerly 3460:406)

**CPSC:408 Windows Programming (3 Credits)**

Prerequisites: Completion of CPSC 210 or CPSC 406 with a grade of C- or better or permission. Windows operating systems, integrated development environment, event-driven programming, graphical user interface design, object libraries, component object model, object linking, embedding, client-server objects. (Formerly 3460:408)

**CPSC:411 Human-Computer Interaction (3 Credits)**

Prerequisite: CPSC 316. This course introduces the basic concepts and technologies of Human-Computer Interaction (HCI). Students will learn how to design and implement systems for human to interact with computers. Topics include: Categories of HCI, CLI, GUI, NUI, Design, Implementation and Evaluation of HCI, HCI Devices, Virtual Device Drive, HCI Toolkits, HCI Standards, Categories of Interactive Tasks, EDP and Multi-Threading in HCI, VR/AR/MR/XR in HCI, APP HCI, 3D Printing. (Formerly 3460:411)

**CPSC:415 Big Data Programming (3 Credits)**

Prerequisite: CPSC 210 with a grade of C- or higher. Fundamentals of big data programming and computing platforms. Wrangling, modeling, visualizing, and analyzing data; computing platforms for data mining and deep learning. (Formerly 3460:415)

**CPSC:418 Introduction to Discrete Structures (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better or permission. Introduction to a number of structures in algebra of particular use to student in computer science. Topics include algorithms and flow chart language, graphs and digraphs, trees, lattices codes. (Formerly 3460:418)

**CPSC:421 Object-Oriented Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Object-oriented design, analysis, and programming using different development models. Comparison with other programming paradigms. (Formerly 3460:421)

**CPSC:426 Operating Systems (3 Credits)**

Prerequisites: Completion of CPSC 316 and CPEN 320 or equivalents with grades of C- or better. Introduction to aspects of all modern operating systems: types; storage management; process and resource control; interacting process synchronization. (Formerly 3460:426)

**CPSC:428 UNIX System Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better and knowledge of C. An overview of the UNIX operating system. Shell programming. Process management, processor management, storage management, scheduling algorithms, resource protection, and system programming. (Formerly 3460:428)

**CPSC:430 Theory of Programming Languages (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Advanced concepts underlying programming languages and their applications, formal definitions of programming languages, Backus Normal Form, semantics. Alternative programming paradigms including functional programming. (Formerly 3460:430)

**CPSC:435 Algorithms (3 Credits)**

Prerequisite: Completion of CPSC 316 with a grade of C- or better. Design and analysis of efficient algorithms for random access machines; derivation of pattern classification algorithms. (Formerly 3460:435)

**CPSC:436 Applied Machine Learning (3 Credits)**

Prerequisite: CPSC 210 with a grade of C- or higher. Machine learning studies algorithms and models that enable computers to complete task without explicit instructions. These algorithms rely on rules, associations, and patterns presented in large data sets gathered or generated through self-learning. This course will introduce students the fundamentals of machine learning, and concepts of deep learning. Topics include machine learning concepts, tasks, and workflow; supervised learning methods for classification and prediction; unsupervised learning methods for pattern recognition; concepts of advanced supervised learning methods including deep learning algorithms such as neural networks and convolutional neural networks. The main focus of the course is the application of industry-leading machine learning algorithms and the enabling techniques that make the implementation of the algorithms practical. (Formerly 3460:436)

**CPSC:438 Interactive Game & Game Engine Design (3 Credits)**

Prerequisite: CPSC 316. This course will introduce the basic concepts and techniques of game and game engine design. Students will learn how to design and implement interactive computer games and game engines. Topics include: Interactive Animation, Game Engines, EDP in Game Development, Procedural Animation and Physics Engine, Decision Making and AI Games, Surface & Volume Representation, VR, AR, MR, APP Games, Game Engine Development, and Voxel-Engine. (Formerly 3460:438)

**CPSC:440 Compiler Design (3 Credits)**

Prerequisites: Completion of CPSC 210 and (CPEN 320 or CPSC 306), with a grade of C- or better. Techniques used in constructing compilers, including lexical and syntactic analysis, parsing techniques, object code generation and optimization. Course requires a compiler implementation project. (Formerly 3460:440)

**CPSC:445 Introduction to Bioinformatics (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better or permission. Introduce major themes in bioinformatics. Topics include concepts of molecular genetics, biological databases, database searching, sequence alignments, phylogenetic trees, structure prediction, and microarray data analysis. (Formerly 3460:445)

**CPSC:453 Computer Security (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. Principles of computer security – cryptography, authentications, secure network protocols, intrusion detection and countermeasures. (Formerly 3460:453)

**CPSC:455 Data Communication & Computer Networks (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. ISO-OSI, TCP/IP, SNA data switching, protocols, flow and error control, routing, topology, Network trends, network taxonomies, and socket-based programming. (Formerly 3460:455)

**CPSC:457 Computer Graphics (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Topics in vector and raster graphics, interactive graphics languages, scan conversion, clipping, geometric transformation, projection, shading, animation and virtual reality. (Formerly 3460:457)

**CPSC:460 Artificial Intelligence & Heuristic Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Study of various programs which have displayed some intelligent behavior. Exploration of level at which computers can display intelligence. (Formerly 3460:460)

**CPSC:463 Pervasive Computing (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. Computing from a wireless perspective. Topics include protocols, algorithms, security and sensor networks. (Formerly 3460:463)

**CPSC:465 Computer Architecture (3 Credits)**

Prerequisite: Completion of CPSC 210 and (CPEN 320 or CPSC 306), with a grade of C- or better. An introduction to the hardware organization of the computer at the register, processor and systems level. In-depth study of the architecture of a particular computer system family. (Formerly 3460:465)

**CPSC:468 Mobile Robotics (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. Introduction to history, hardware and software components, and design of autonomous mobile robots. Multiple projects involving both physical robots and software emulation. (Formerly 3460:468)

**CPSC:475 Database Management (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Fundamentals of database organization, data manipulations and representation, data integrity, privacy. (Formerly 3460:475)

**CPSC:476 Introduction to NoSQL Data Management (3 Credits)**

Prerequisite: CPSC 210. The widespread emergence of big data storage needs has driven the development and adoption of a new class of non-relational databases commonly referred to as NoSQL databases. This course will explore the origins of NoSQL databases and the characteristics that distinguish them from traditional relational database management systems. Core concepts of NoSQL databases will be presented, followed by an exploration of how different database technologies implement these core concepts. We will take a closer look at 1-2 databases from each of the four main NoSQL data models (key-value, column family, document, and graph), highlighting the business needs that drive the development and use of each database. Finally, we will present criteria that decision makers should consider when choosing between relational and non-relational databases and techniques for selecting the NoSQL database that best addresses specific use cases. (Formerly 3460:476)

**CPSC:477 Introduction to Parallel Processing (3 Credits)**

Prerequisites: Completion of CPSC 316 with a grade of C- or better and knowledge of C. Commercial processors: past and present. Parallel languages, models of parallel computation, parallel algorithm design and performance evaluation. Parallel paradigms with relation to real world applications. (Formerly 3460:477)

**CPSC:480 Software Engineering (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Introduction to formal software specification and validation. Introduction of methodologies and tools of design, development and validation, and maintenance. (Formerly 3460:480)

**CPSC:489 Topics in Computer Science (1-3 Credits)**

Prerequisite: Permission of instructor. Selected topics in computer science at an advanced level. (Formerly 3460:489)

**CPSC:490 Senior Seminar in Computer Science (3 Credits)**

Prerequisites: Must have completed at least 30 hours of CPSC courses. Corequisites: CPSC 435 and [CPSC 426 or CPEN 325]. Professional software development, surviving "Mission Impossible" projects, computer ethics, intellectual property rights (patents and copyrights), and other current topics. (Formerly 3460:490)

**Gen Ed:** - Capstone

**CPSC:497 Individual Study in Computer Science (1-3 Credits)**

(May be repeated. Can apply to degree, minor or certificate only with department approval.) Prerequisite: Permission. Directed studies designed as introduction to research problems under guidance of designated faculty member. (Formerly 3460:497)

**CPSC:498 Senior Honors Project: Computer Science (1-3 Credits)**

Prerequisites: CPSC 497 and Senior student in Honors Program. Directed study for senior student in the Honors Program who has completed CPSC 497. An introduction to research problems in the computer science under the guidance of selected faculty. (Formerly 3460:498)

## Artificial Intelligence and Machine Learning, Certificate

### Certificate in Artificial Intelligence and Machine Learning (346010C)

This certificate program is designed for both degree and non-degree seeking students who have an interest in computing and AI techniques and skills.

The program offers both core coursework in artificial intelligence (AI) and a range of electives. The core courses provide skills and training necessary for students to start or progress in the growing field of AI, while the electives allow students to focus their studies within the field.

The program is designed to help students prepare for the many careers and industries in which employers are looking for AI experience. This AI certificate provides recognition of their AI experience.

### Requirements for Admission

Admission to this certificate program requires that students have completed the following two introductory programming courses or their equivalents with a GPA of 2.5 or better:

Code	Title	Hours
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4

Students must also complete this computer science core course or its equivalent before or near the beginning of their study for the certificate program:

Code	Title	Hours
CPSC:316	Data Structures	3

While not required for the certificate directly, this course is a prerequisite to a required course for the certificate program.

Please note that some of the required and elective courses for this certificate have additional prerequisites that must be met.

The following information has official approval of the **Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Computer Science" and must be completed with a minimum grade point average of 2.0 overall for

the certificate to be noted on the student's record. The credits earned in the certificate program cannot be counted towards the Computer Science minor program.

### Summary

Code	Title	Hours
Required Courses		6
Electives		6
Total Hours		12

### Required Courses

Code	Title	Hours
CPSC:435	Algorithms	3
CPSC:460	Artificial Intelligence & Heuristic Programming	3
Total Hours		6

### Electives

Code	Title	Hours
<b>Complete six credits:</b>		<b>6</b>
CPSC:411	Human-Computer Interaction	
CPSC:415	Big Data Programming	
CPSC:436	Applied Machine Learning	
CPSC:438	Interactive Game & Game Engine Design	
CPSC:445	Introduction to Bioinformatics	
CPSC:477	Introduction to Parallel Processing	
CPSC:489	Topics in Computer Science <sup>1</sup>	
Total Hours		6

<sup>1</sup> Must be on a related topic approved by the Department of Computer Science.

## Computer Information System, Programming Option, AAB

### Associate of Applied Business in Computer Information Systems, Programming (244106AAB)

More on the computing-related majors (<https://www.uakron.edu/computer/>)

### Program Description

The Associate of Applied Business (AAB) in Computer Information Systems (CIS) - Programming degree option allows students to attain knowledge of effective software application development, client/server application development, and database application development and management for businesses.

The CIS program offers high level training by introducing students to basic computing concepts while allowing them to develop the applied skills required for the workforce. Courses are taught in cutting edge computer labs so students can learn and practice skills. Schedules offer a range of day and evening classes.

## Requirements for Admission

- Admission to The University of Akron.
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for transfer students.
- Students must pass a *Computer Literacy Placement test* before taking any required Computer Information Systems core courses or take CISS:105 Introduction to Computers and Application Software, which does not count towards degree requirements.
- Students must attain a C or better in each transferred course in the CIS major area.

## Program-Specific Degree Requirements

- **Students must attain a C or better in each course in their major area.**
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for Inter- and Intra-College Transfer into all Associate and Bachelor degree programs in Computer Information Systems.
- Additional classes may be needed to transition into a BS degree in Computer Information Systems.

## Career Information

Graduates of the associate and bachelor's degree programs in Computer Information Systems under the Programming option are expected to qualify for such positions as programmer/analysts, software developers, database administrators, and web developers in government, business, information technology, and other industries.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements Summary

Code	Title	Hours
Programming Major Core		30
Business Core		12
General Education		19
Total Hours		61

## Programming Major Core

Code	Title	Hours
CISS:121	Introduction of Logic/Programming	3
CISS:134	Cybersecurity Fundamentals	3
CISS:140	Internet Tools	3
CISS:145	Introduction to Unix/Linux	3
CISS:160	JAVA Programming <sup>2</sup>	3

CISS:170	Visual BASIC <sup>2</sup>	3
CISS:180	Introduction to Database Management <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
CISS:241	Systems Analysis & Design <sup>1</sup>	3
CISS:256	C++ Programming <sup>1</sup>	3
Total Hours		30

## Business Core

Code	Title	Hours
COMM:107	Essentials of Management Technology	3
COMM:108	Introduction to Business	3
COMM:211	Essentials of Financial Accounting	3
COMM:202	Elements of Human Resource Management	3
Total Hours		12

## General Education

Code	Title	Hours
	First Writing Requirement	3
	Speaking Requirement	3
	Natural Science without Lab Requirement	3
	Social Science/Domestic Diversity Requirement	3
MATH:152 & MATH:153 or MATH:145	Technical Mathematics II and Technical Mathematics III Algebra for Calculus	4
ECON:100	Introduction to Economics <sup>3</sup>	3
Total Hours		19

- 1 Traditionally Fall Only (See Program Contact).
- 2 Traditionally Spring Only (See Program Contact).
- 3 Fulfills the Social Science Requirement

## Note:

- Students entering the Computer Information Systems associate's and bachelor's degree options must pass a *Computer Literacy Placement test* or complete the following bridge course prior to enrolling in the program.
- Bridge Course: CISS:105 Introduction to Computers and Application Software

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
	First Writing Course	3
MATH:152 & MATH:153	Technical Mathematics II and Technical Mathematics III <sup>4</sup>	4
COMM:108	Introduction to Business	3
CISS:121	Introduction of Logic/Programming	3
CISS:140	Internet Tools	3
Hours		16
<b>Spring Semester</b>		
COMM:107	Essentials of Management Technology	3
CISS:134	Cybersecurity Fundamentals	3
CISS:145	Introduction to Unix/Linux	3

CISS:170	Visual BASIC <sup>2</sup>	3
CISS:180	Introduction to Database Management <sup>2</sup>	3
Hours		15
<b>2nd Year</b>		
<b>Fall Semester</b>		
	Speaking Requirement	3
	Social Science/Domestic Diversity Requirement	3
COMM:211	Essentials of Financial Accounting	3
CISS:241	Systems Analysis & Design <sup>1</sup>	3
CISS:256	C++ Programming <sup>1</sup>	3
Hours		15
<b>Spring Semester</b>		
	Natural Science without Lab Requirement	3
COMM:202	Elements of Human Resource Management	3
CISS:160	JAVA Programming <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
ECON:100	Introduction to Economics <sup>3</sup>	3
Hours		15
Total Hours		61

**Program Notes**

- <sup>1</sup> Traditionally Fall Only (See Program Contact).
- <sup>2</sup> Traditionally Spring Only (See Program Contact).
- <sup>3</sup> Fulfills the Social Science Requirement
- <sup>4</sup> MATH:145 Algebra for Calculus may be completed in place of MATH:152 and MATH:153.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education Mathematics, Statistics, and Logic, Writing First Course, and Speaking requirements.**

## Computer Information Systems Programming Specialist, Minor

### Minor in Programming Specialist (244106M)

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Programming Specialist" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		15
Electives		6
Total Hours		21

## Required Courses<sup>1</sup>

Code	Title	Hours
CISS:121	Introduction of Logic/Programming	3
CISS:160	JAVA Programming <sup>3</sup>	3
CISS:170	Visual BASIC <sup>3</sup>	3
CISS:180	Introduction to Database Management <sup>3</sup>	3
CISS:256	C++ Programming <sup>2</sup>	3
Total Hours		15

- <sup>1</sup> Students must achieve a grade of C or better in their technical courses.
- <sup>2</sup> Traditionally Fall Only (See Program Contact).
- <sup>3</sup> Traditionally Spring Only (See Program Contact).

## Electives<sup>1</sup>

Code	Title	Hours
<b>Select six credits from the following Computer Information Systems Electives:</b>		<b>6</b>
CISS:140	Internet Tools	
CISS:145	Introduction to Unix/Linux	
CISS:210	Client/Server Programming <sup>2</sup>	
CISS:211	Interactive Web Programming <sup>2</sup>	
CISS:241	Systems Analysis & Design <sup>2</sup>	
CISS:290	Special Topics: Computer Information Systems	
Total Hours		6

- <sup>1</sup> Students must achieve a grade of C or better in their technical courses.
- <sup>2</sup> Traditionally Fall Only (See Program Contact).
- <sup>3</sup> Traditionally Spring Only (See Program Contact).

Note:

- Students entering the Computer Information Systems (CIS) minor programs (Programming and Cisco Networking Technology) must pass department placement exams or complete the following bridge course prior to enrolling in the program.
- Bridge Course: CISS:105 Introduction to Computers and Application Software

## Computer Information Systems Programming, Certificate

### Certificate in Programming (244203C)

This certificate may be earned independent of earning a degree.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate

is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Programming" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		15
Total Hours		15

## Required Courses <sup>1</sup>

Code	Title	Hours
CISS:121	Introduction of Logic/Programming	3
CISS:160	JAVA Programming <sup>3</sup>	3
CISS:170	Visual BASIC <sup>3</sup>	3
CISS:180	Introduction to Database Management <sup>3</sup>	3
CISS:256	C++ Programming <sup>2</sup>	3
Total Hours		15

<sup>1</sup> Students must achieve a grade of C or better in their technical courses.

<sup>2</sup> Traditionally Fall Only (See Program Contact).

<sup>3</sup> Traditionally Spring Only (See Program Contact).

### Note:

- Students entering the Computer Information Systems certificate programs (Programming and Cisco Networking Technology) must pass department placement exams or complete the following bridge course prior to enrolling in the program.
- Bridge Course: CISS:105 Introduction to Computers and Application Software

# Computer Information Systems, Computer Networking Option, Cisco Track, AAB

## Associate of Applied Business in Computer Information Systems, Computer Networking - Cisco (244208AAB)

More on the programs in Computer Information Systems, Networking option (<https://www.uakron.edu/computer/networking/>)

## Program Description

The Associate of Applied Business (AAB) in Computer Information Systems (CIS) - Computer Networking degree option allows students to attain computer network management knowledge and skills such as building, securing, and managing LAN/WAN networks.

The CIS program provides high level training by introducing students to basic computing concepts while allowing them to develop the applied skills required for the workforce. Courses are taught in cutting edge

computer labs so students can learn and practices skills. Schedules offer a range of day and evening classes.

## Requirements for Admission

- Admission to The University of Akron.
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for transfer students.
- Students must pass a *Computer Literacy Placement test* before taking any required Computer Information Systems core courses or take CISS:105 Introduction to Computers and Application Software, which does not count towards degree requirements.
- Students must attain a C or better in each transferred course in the CIS major area.

## Program-Specific Degree Requirements

- **Students must attain a C or better in each course in their major area.**
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for Inter- and Intra-College Transfer into all Associate and Bachelor degree programs in Computer Information Systems.
- Additional classes may be needed to transition into a BS degree in Computer Information Systems.

## Career Information

Graduates of the associate and bachelor's degree programs in Computer Information Systems under the Networking option are expected to qualify for such positions as help-desk support specialists, desktop support analysts, computer operators, PC technicians, network administrators, network specialists, systems administrators, web server administrators and messaging administrators, and information technology (IT) specialists in government, business, information technology, and other industries.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements Summary

Code	Title	Hours
Computer Networking Major Core		30
Business Core		12
General Education		19
Total Hours		61

## Computer Networking Major Core

Code	Title	Hours
CISS:121	Introduction of Logic/Programming	3
CISS:134	Cybersecurity Fundamentals	3
CISS:141	Web Server Administration	3
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics <sup>2</sup>	3
CISS:202	Router and Routing Basics <sup>1</sup>	3
CISS:204	WAN Technologies <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
CISS:247	Hardware Support	3
CISS:282	Microsoft Networking II <sup>1</sup>	3
Total Hours		30

## Business Core Courses

Code	Title	Hours
COMM:107	Essentials of Management Technology	3
COMM:108	Introduction to Business	3
COMM:202	Elements of Human Resource Management	3
COMM:211	Essentials of Financial Accounting	3
Total Hours		12

## General Education Courses

Code	Title	Hours
	First Writing Course	3
	Speaking Requirement	3
	Natural Science Requirement	3
	Social Science/Domestic Diversity Requirement	3
MATH:152 & MATH:153 or MATH:145	Technical Mathematics II and Technical Mathematics III Algebra for Calculus	4
ECON:100	Introduction to Economics <sup>3</sup>	3
Total Hours		19

## Program Notes

<sup>1</sup> Traditionally Fall only (see program contact).

<sup>2</sup> Traditionally Spring only (see program contact).

<sup>3</sup> Fulfills the Social Science Requirement

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education Mathematics, Statistics, and Logic, Writing First Course, and Speaking requirements.**

### Note:

- Students entering the Computer Information Systems associate's and bachelor's degree options must pass a *Computer Literacy Placement test* or complete the following bridge course prior to enrolling in the program.
- Bridge Course: CISS:105 Introduction to Computers and Application Software

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
	First Writing Course	3
MATH:152 & MATH:153	Technical Mathematics II and Technical Mathematics III <sup>3</sup>	4
CISS:121	Introduction of Logic/Programming	3
CISS:141	Web Server Administration	3
CISS:247	Hardware Support <sup>1</sup>	3
Hours		16
<b>Spring Semester</b>		
	Natural Science Requirement	3
COMM:107	Essentials of Management Technology	3
CISS:134	Cybersecurity Fundamentals	3
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics <sup>2</sup>	3
Hours		15
<b>2nd Year</b>		
<b>Fall Semester</b>		
	Speaking Requirement	3
COMM:108	Introduction to Business	3
COMM:211	Essentials of Financial Accounting	3
CISS:202	Router and Routing Basics <sup>1</sup>	3
CISS:282	Microsoft Networking II <sup>1</sup>	3
Hours		15
<b>Spring Semester</b>		
	Social Science/Domestic Diversity Requirement	3
COMM:202	Elements of Human Resource Management	3
CISS:204	WAN Technologies <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
ECON:100	Introduction to Economics (Social Science Requirement)	3
Hours		15
Total Hours		61

### Program Notes

<sup>1</sup> Traditionally Fall only (see program contact).

<sup>2</sup> Traditionally Spring only (see program contact).

<sup>3</sup> MATH:145 may be completed in place of MATH:152 and MATH:153.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

# Computer Information Systems, Cybersecurity Option, BS

## Bachelor of Science in Computer Information Systems, Cybersecurity (244305BS)

More on Computer Information Systems, Cybersecurity option (<https://www.uakron.edu/computer/cybersecurity/>)

### Program Description

The Bachelor of Science in Computer Information Systems (CIS) - Cybersecurity degree option allows students to attain knowledge of computer network configuration, computer network and data security, network intrusion detection and prevention, computer network forensics, digital forensics, and cryptography. The degree option includes an in-depth study of modern cryptography as it relates to cybersecurity and computing.

The CIS program offers high level training by introducing students to basic computing concepts while allowing them to develop the applied skills required for the workforce. Courses are taught in cutting edge computer labs so students can learn and practice skills. Schedules offer a range of day and evening classes.

### Admission Requirements

- Admission to The University of Akron.
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for transfer students.
- Students must pass a placement test before taking any required Computer Information Systems core courses or take CISS:105 Introduction to Computers and Application Software, which does not count towards degree requirements.
- Students must attain a 'C' or better in each transferred course in the CIS major area.

### Program-Specific Degree Requirements

- **Students must attain a C or better in each course in their major area.**
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for Inter- and Intra-College Transfer into all Associate and Bachelor degree programs in Computer Information Systems.
- Prior to enrolling in classes for the BS degree you must contact your academic advisor.

### Career Information

Graduates of the bachelor's degree program in Computer Information Systems under the Cybersecurity option are expected to qualify for such positions as law enforcement professionals, computer forensic specialists, data security analysts, systems security administrators, and network security administrators in government, business, information technology, and other industries.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion*

*of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Cybersecurity Major Core	54
	Emergency Management & Homeland Security Courses	18
	Cryptology and Data Analysis Courses	11
	Additional Credits for Graduation *	3
<b>Total Hours</b>		<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

### Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

#### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:152 Technical Mathematics II  
& MATH:153 and Technical Mathematics III

MATH:145 Algebra for Calculus

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

#### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

ECON:100 Introduction to Economics

#### Diversity

Domestic Diversity

Global Diversity

#### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

<b>Total Hours</b>		<b>34</b>
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## Cybersecurity Major Core

Code	Title	Hours
CISS:121	Introduction of Logic/Programming	3
CISS:134	Cybersecurity Fundamentals	3
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics <sup>2</sup>	3
CISS:202	Router and Routing Basics <sup>1</sup>	3
CISS:204	WAN Technologies <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
CISS:247	Hardware Support	3
CISS:300	Network Authentication and Security <sup>1</sup>	3
CISS:306 or DGFR:383	Ethics & Law in Information Technology <sup>2</sup> Ethical Hacking	3
CISS:331	Programming for Cybersecurity <sup>2</sup>	3
CISS:388	Advanced UNIX/Linux <sup>2</sup>	3
CISS:431	UNIX-based Systems Security <sup>1</sup>	3
CISS:491	CIS Senior Cybersecurity Project <sup>2</sup>	3
DGFR:440	Intrusion Detection <sup>2</sup>	3
DGFR:441	Network Forensics I <sup>1</sup>	3
DGFR:442	Wireless Forensics <sup>1</sup>	3
DGFR:443	Network Forensics II <sup>2</sup>	3
Total Hours		54

## Emergency Management & Homeland Security Courses

Code	Title	Hours
DGFR:100	Introduction to Digital Forensics	3
DGFR:280	Cybercrime <sup>1</sup>	3
DGFR:281	Computer Forensic Methods <sup>2</sup>	3
DGFR:283	Cyber Warfare <sup>1</sup>	3
DGFR:381	Computer Forensic Methods II <sup>1</sup>	3
DGFR:382	File System Analysis <sup>1</sup>	3
Total Hours		18

## Cryptology and Data Analysis Courses

Code	Title	Hours
MATH:261	Applied Finite Mathematics <sup>2</sup>	3
MATH:345	Technical Data Analysis	2
MATH:361	Applied Cryptography <sup>1</sup>	3
MATH:461	Applied Cryptanalysis <sup>2</sup>	3
Total Hours		11

<sup>1</sup> Traditionally Fall Only (See Program Contact).

<sup>2</sup> Traditionally Spring Only (See Program Contact).

<sup>3</sup> If students pursuing a bachelor's degree at the University of Akron must complete the General Education requirements. For efficient completion of UA General Education requirements, it is recommended that students choose General Education classes that also satisfy the Global Diversity and Domestic Diversity areas as shown.

**Note:**

- Students entering the Computer Information Systems associate's and bachelor's degree options must pass a *Computer Literacy Placement test* or complete the following bridge course prior to enrolling in the program.
- Bridge Course: CISS:105 Introduction to Computers and Application Software

## Recommended Sequence

### 1st Year

Fall Semester	Hours	
First Writing Course	3	
MATH:152 & MATH:153	Technical Mathematics II and Technical Mathematics III <sup>6</sup>	4
DGFR:100	Introduction to Digital Forensics	3
CISS:121	Introduction of Logic/Programming	3
CISS:247	Hardware Support	3
Hours	16	

### Spring Semester

Second Writing Course	3	
Natural Science Requirement	3	
CISS:134	Cybersecurity Fundamentals	3
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics <sup>2</sup>	3
Hours	15	

### 2nd Year

#### Fall Semester

Speaking Requirement	3	
Social Science/Domestic Diversity Requirement <sup>3</sup>	3	
DGFR:280	Cybercrime <sup>1</sup>	3
DGFR:283	Cyber Warfare <sup>1</sup>	3
CISS:202	Router and Routing Basics <sup>1</sup>	3
Hours	15	

#### Spring Semester

ECON:100	Introduction to Economics <sup>5</sup>	3
MATH:261	Applied Finite Mathematics	3
DGFR:281	Computer Forensic Methods <sup>2</sup>	3
CISS:204	WAN Technologies <sup>2</sup>	3
One of the following:		2-3
CISS:240	Computer Information Systems Internship <sup>2</sup>	
	Free Elective (2 cr. minimum) - if opting for a Co-op during 3rd year summer	
Hours		14-15

### 3rd Year

#### Fall Semester

Humanities Requirement <sup>3</sup>	3	
MATH:361	Applied Cryptography	3
DGFR:381	Computer Forensic Methods II <sup>1</sup>	3
DGFR:382	File System Analysis <sup>1</sup>	3
DGFR:441	Network Forensics I <sup>1</sup>	3
Hours	15	

#### Spring Semester

Arts Requirement <sup>3</sup>	3
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DGFR:443	Network Forensics II <sup>2</sup>	3
CISS:306 or DGFR:383	Ethics & Law in Information Technology <sup>2</sup> or Ethical Hacking	3
CISS:331	Programming for Cybersecurity <sup>2</sup>	3
CISS:388	Advanced UNIX/Linux <sup>2</sup>	3
Hours		15
<b>Summer Semester</b>		
Cooperative Education		
Hours		0
<b>4th Year</b>		
<b>Fall Semester</b>		
	Natural Science with Lab Requirement	4
MATH:345	Technical Data Analysis	2
DGFR:442	Wireless Forensics <sup>1</sup>	3
CISS:300	Network Authentication and Security <sup>1</sup>	3
CISS:431	UNIX-based Systems Security <sup>1</sup>	3
Hours		15
<b>Spring Semester</b>		
	Arts/Humanities/Global Diversity Requirement <sup>3</sup>	3
	Complex Issues Requirement	3
MATH:461	Applied Cryptanalysis <sup>2</sup>	3
DGFR:440	Intrusion Detection <sup>2</sup>	3
CISS:491	CIS Senior Cybersecurity Project	3
Hours		15
Total Hours		120-121

**Program Notes**

- <sup>1</sup> Traditionally Fall Only (See Program Contact).
- <sup>2</sup> Traditionally Spring Only (See Program Contact).
- <sup>3</sup> All students pursuing a bachelor's degree at the University of Akron must complete the General Education requirements. For efficient completion of UA General Education requirements, it is recommended that students choose General Education classes that also satisfy Global Diversity and Domestic Diversity as shown
- <sup>5</sup> Fulfills the Social Science Requirement
- <sup>6</sup> MATH:145 Algebra for Calculus may be completed in place of MATH:152 and MATH:153.

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your required General Education Mathematics, Statistics, and Logic, Writing First Course, and Speaking requirements.

## Computer Information Systems, Networking Option, BS

### Bachelor of Science in Computer Information Systems, Networking (244201BS)

More on the programs in Computer Information Systems, Networking option (<https://www.uakron.edu/computer/networking/>)

## Program Description

The Bachelor of Science (BS) in Computer Information Systems (CIS) - Networking degree option allows students to attain in-depth study of network management including building, securing, managing, and troubleshooting multimedia wired and wireless LAN and WAN networks.

The CIS program provides high level training by introducing students to basic computing concepts while allowing them to develop the applied skills required for the workforce. Courses are taught in cutting edge computer labs so students can learn and practice skills. Schedules offer a range of day and evening classes.

## Requirements for Admission

- Admission to The University of Akron.
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for transfer students.
- Students must pass a *Computer Literacy Placement test* before taking any required Computer Information Systems core courses or take CISS:105 Introduction to Computers and Application Software, which does not count towards degree requirements.
- Students must attain a C or better in each transferred course in the CIS major area.

## Program-Specific Degree Requirements

- **Students must attain a C or better in each course in their major area.**
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for Inter- and Intra-College Transfer into all Associate and Bachelor degree programs in Computer Information Systems.
- Prior to enrolling in classes for the BS degree you must contact your academic advisor.

## Career Information

Graduates of the associate and bachelor's degree programs in Computer Information Systems under the Networking option are expected to qualify for such positions as help-desk support specialists, desktop support analysts, computer operators, PC technicians, network administrators, network specialists, systems administrators, web server administrators and messaging administrators, and information technology (IT) specialists in government, business, information technology, and other industries.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses.

Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Networking Major Core	62
	Business and Math Courses	23
	Additional Major Electives *	4
	<b>Total Hours</b>	<b>123</b>

\* This major requires a minimum of 123 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:152	Technical Mathematics II	
& MATH:153	and Technical Mathematics III	
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
ECON:100	Introduction to Economics	
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
	<b>Total Hours</b>	<b>34</b>

## Networking Major Core

Code	Title	Hours
CISS:121	Introduction of Logic/Programming	3
CISS:134	Cybersecurity Fundamentals	3

CISS:141	Web Server Administration	3
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics <sup>2</sup>	3
CISS:202	Router and Routing Basics <sup>1</sup>	3
CISS:204	WAN Technologies <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
CISS:247	Hardware Support	3
CISS:282	Microsoft Networking II <sup>1</sup>	3
CISS:300	Network Authentication and Security <sup>1</sup>	3
CISS:303	Voice, Data, and Video <sup>1</sup>	3
CISS:306	Ethics & Law in Information Technology <sup>2</sup>	3
CISS:310	Wireless Networking <sup>1</sup>	3
CISS:388	Advanced UNIX/Linux <sup>2</sup>	3
CISS:400	Advanced Routing <sup>2</sup>	4
CISS:401	Multilayer Switching <sup>1</sup>	3
CISS:402	Troubleshooting Complex IP-based Networks <sup>2</sup>	4
CISS:430	Network Monitoring and Management <sup>1</sup>	3
CISS:490	CIS Senior Networking Projects <sup>2</sup>	3
	<b>Total Hours</b>	<b>62</b>

## Business and Math Courses

Code	Title	Hours
MATH:154	Technical Mathematics IV (or equivalent)	3
MATH:345	Technical Data Analysis	2
COMM:107	Essentials of Management Technology	3
COMM:108	Introduction to Business	3
COMM:202	Elements of Human Resource Management	3
COMM:211	Essentials of Financial Accounting	3
COMM:213	Essentials of Management Accounting	3
or COMM:243	Survey in Finance	
COMM:430	Leading Project Teams	3
	<b>Total Hours</b>	<b>23</b>

<sup>1</sup> Traditionally Fall Only (See Program Contact).

<sup>2</sup> Traditionally Spring Only (See Program Contact).

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education Mathematics, Statistics, and Logic, Writing First Course, and Speaking requirements.**

### Note:

- Students entering the Computer Information Systems associate's and bachelor's degree options must pass a *Computer Literacy Placement test* or complete the following bridge course prior to enrolling in the program.
- Bridge Course: CISS:105 Introduction to Computers and Application Software

## Recommended Sequence

1st Year		Hours
Fall Semester		
	First Writing Course	3
MATH:152	Technical Mathematics II	4
& MATH:153	and Technical Mathematics III	

CISS:121	Introduction of Logic/Programming	3
CISS:141	Web Server Administration	3
CISS:247	Hardware Support	3
Hours		16

**Spring Semester**

	Second Writing Course	3
COMM:107	Essentials of Management Technology	3
CISS:134	Cybersecurity Fundamentals	3
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics <sup>2</sup>	3
Hours		15

**2nd Year****Fall Semester**

	Speaking Requirement	3
COMM:108	Introduction to Business	3
COMM:211	Essentials of Financial Accounting	3
CISS:202	Router and Routing Basics <sup>1</sup>	3
CISS:282	Microsoft Networking II <sup>1</sup>	3
Hours		15

**Spring Semester**

COMM:202	Elements of Human Resource Management	3
COMM:213 or COMM:243	Essentials of Management Accounting or Survey in Finance	3
CISS:204	WAN Technologies <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
ECON:100	Introduction to Economics <sup>4</sup>	3
Hours		15

**3rd Year****Fall Semester**

MATH:154 or MATH:149	Technical Mathematics IV or Precalculus Mathematics	3-4
COMM:430	Leading Project Teams	3
CISS:300	Network Authentication and Security <sup>1</sup>	3
CISS:303	Voice, Data, and Video <sup>1</sup>	3
CISS:310	Wireless Networking <sup>1</sup>	3
Hours		15-16

**Spring Semester**

	Arts Requirement <sup>3</sup>	3
	Natural Science Requirement	3
CISS:306	Ethics & Law in Information Technology <sup>2</sup>	3
CISS:388	Advanced UNIX/Linux <sup>2</sup>	3
CISS:400	Advanced Routing <sup>2</sup>	4
Hours		16

**4th Year****Fall Semester**

	Humanities Requirement <sup>3</sup>	3
	Natural Science with Lab Requirement	4
MATH:345	Technical Data Analysis	2
CISS:401	Multilayer Switching <sup>1</sup>	3
CISS:430	Network Monitoring and Management <sup>1</sup>	3
Hours		15

**Spring Semester**

	Social Science/Domestic Diversity Requirement <sup>3</sup>	3
	Arts/Humanities/Global Diversity Requirement <sup>3</sup>	3
	Complex Issues Requirement	3
CISS:402	Troubleshooting Complex IP-based Networks <sup>2</sup>	4
CISS:490	CIS Senior Networking Projects <sup>2</sup>	3
Hours		16
Total Hours		123-124

**Program Notes**

- <sup>1</sup> Traditionally Fall Only (See Program Contact).
- <sup>2</sup> Traditionally Spring Only (See Program Contact).
- <sup>3</sup> All students pursuing a bachelor's degree at the University of Akron must complete the General Education requirements. For efficient completion of UA General Education requirements, it is recommended that students choose General Education classes that also carry the Global Diversity and Domestic Diversity designation as shown.
- <sup>4</sup> Fulfills the Social Science Requirement
- <sup>5</sup> MATH:145 Algebra for Calculus may be completed in place of MATH:152 and MATH:153.

## Computer Information Systems, Programming Option, BS

### Bachelor of Science in Computer Information Systems, Programming (244302BS)

More on the computing-related majors (<https://www.uakron.edu/computer/>)

### Program Description

The Bachelor of Science in Computer Information Systems (CIS) - Programming degree option allows students to attain knowledge of effective software application development, client/server application development, and database application development and management for businesses.

The CIS program provides high level training by introducing students to basic computing concepts while allowing them to develop the applied skills required for the workforce. Courses are taught in cutting edge computer labs so students can learn and practice skills. Schedules offer a range of day and evening classes.

### Requirements for Admission

- Admission to The University of Akron.
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for transfer students.
- Students must pass a *Computer Literacy Placement test* before taking any required Computer Information Systems core courses or take CISS:105 Introduction to Computers and Application Software, which does not count towards degree requirements.

- Students must attain a C or better in each transferred course in the CIS major area.

## Program-Specific Degree Requirements

- **Students must attain a C or better in each course in their major area.**
- A cumulative GPA of 2.0 and a minimum of 15 earned credit hours for Inter- and Intra-College Transfer into all Associate and Bachelor degree programs in Computer Information Systems.
- Prior to enrolling in classes for the BS degree you must contact your academic advisor.

## Career Information

Graduates of the associate and bachelor's programs in Computer Information Systems under the Programming option are expected to qualify for such positions as software or applications developers, programmer analysts, software database administrators, database designers, database developers, and database warehouse analysts in government, business, information technology, and other industries.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements

### Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Programming Major Core	48
	Programming Technical Electives	9
	Business and Math Courses	27
	Additional Major Electives *	4
	<b>Total Hours</b>	<b>122</b>

\* This major requires a minimum of 122 completed credit hours.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	

MATH:152	Technical Mathematics II	
& MATH:153	and Technical Mathematics III	
MATH:145	Algebra for Calculus	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
ECON:100	Introduction to Economics	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## Programming Major Core

Code	Title	Hours
CISS:121	Introduction of Logic/Programming	3
CISS:134	Cybersecurity Fundamentals	3
CISS:140	Internet Tools	3
CISS:145	Introduction to Unix/Linux	3
CISS:160	JAVA Programming <sup>2</sup>	3
CISS:170	Visual BASIC <sup>2</sup>	3
CISS:180	Introduction to Database Management <sup>2</sup>	3
CISS:210	Client/Server Programming <sup>1</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
CISS:241	Systems Analysis & Design <sup>1</sup>	3
CISS:256	C++ Programming <sup>1</sup>	3
CISS:306	Ethics & Law in Information Technology <sup>2</sup>	3
CISS:360	Java Programming II <sup>1</sup>	3
or CISS:456	C++ Programming II	
CISS:450	Applied Data Mining <sup>2</sup>	3
CISS:451	Senior Programming Projects <sup>2</sup>	3
CISS:465	Data Communications & Networking <sup>1</sup>	3
	<b>Total Hours</b>	<b>48</b>

## Programming Technical Electives

Code	Title	Hours
<b>Complete 9 credits:</b>		<b>9</b>
CISS:321	Server-Side Scripting <sup>2</sup>	
CISS:331	Programming for Cybersecurity <sup>2</sup>	
CISS:360	Java Programming II <sup>1</sup>	
CISS:388	Advanced UNIX/Linux <sup>2</sup>	
CISS:470	Database Management II <sup>1</sup>	

CISS:480	Current Topics in Computer Information Systems	
Total Hours		9

## Business and Math Courses

Code	Title	Hours
MATH:154	Technical Mathematics IV (or equivalent )	3
MATH:208	Introduction to Discrete Mathematics	4
MATH:345	Technical Data Analysis	2
COMM:107	Essentials of Management Technology	3
COMM:108	Introduction to Business	3
COMM:202	Elements of Human Resource Management	3
COMM:211	Essentials of Financial Accounting	3
COMM:213	Essentials of Management Accounting	3
or COMM:243	Survey in Finance	
COMM:430	Leading Project Teams	3
Total Hours		27

<sup>1</sup> Traditionally Fall Only (See Program Contact).

<sup>2</sup> Traditionally Spring Only (See Program Contact).

<sup>3</sup> All students pursuing a bachelor's degree at the University of Akron must complete the General Education requirements. For efficient completion of UA General Education requirements, it is recommended that students choose General Education classes that also satisfy the Global Diversity and Domestic Diversity areas as shown.

### Note

- Students entering the Computer Information Systems associate's and bachelor's degree options must a *Computer Literacy Placement test* or complete the following bridge course prior to enrolling in the program.
- Bridge Course: CISS:105 Introduction to Computers and Application Software

## Recommended Sequence

### 1st Year

Fall Semester	Hours	
First Writing Course	3	
MATH:152 Technical Mathematics II & MATH:153 and Technical Mathematics III <sup>5</sup>	4	
COMM:107 Essentials of Management Technology	3	
CISS:121 Introduction of Logic/Programming	3	
CISS:140 Internet Tools	3	
Hours		16

### Spring Semester

Second Writing Course	3	
CISS:134 Cybersecurity Fundamentals	3	
CISS:145 Introduction to Unix/Linux	3	
CISS:170 Visual BASIC <sup>2</sup>	3	
CISS:180 Introduction to Database Management <sup>2</sup>	3	
Hours		15

### 2nd Year

Fall Semester	Hours
Speaking Requirement	3

COMM:211	Essentials of Financial Accounting	3
CISS:210	Client/Server Programming <sup>1</sup>	3
CISS:241	Systems Analysis & Design <sup>1</sup>	3
CISS:256	C++ Programming <sup>1</sup>	3
Hours		15

### Spring Semester

COMM:108	Introduction to Business	3
COMM:202	Elements of Human Resource Management	3
COMM:213	Essentials of Management Accounting	3
or COMM:243	or Survey in Finance	
CISS:160	JAVA Programming <sup>2</sup>	3
CISS:240	Computer Information Systems Internship <sup>2</sup>	3
Hours		15

### 3rd Year

#### Fall Semester

MATH:154	Technical Mathematics IV	3-4
or MATH:149	or Precalculus Mathematics	
COMM:430	Leading Project Teams	3
CISS:360	Java Programming II <sup>1</sup>	3
or CISS:456	or C++ Programming II	
CISS:3xx/4xx	CIS Upper Level Elective - See Program Contact	3
ECON:100	Introduction to Economics <sup>3</sup>	3
Hours		15-16

#### Spring Semester

Arts Requirement <sup>3</sup>	3	
Natural Science Requirement	3	
CISS:306	Ethics & Law in Information Technology <sup>2</sup>	3
CISS:3xx/4xx	CIS Upper Level Elective - See Program Contact	3
MATH:208	Introduction to Discrete Mathematics	4
Hours		16

### 4th Year

#### Fall Semester

Natural Science with Lab Requirement	4	
Social Science/Domestic Diversity Requirement <sup>3</sup>	3	
MATH:345	Technical Data Analysis	2
CISS:465	Data Communications & Networking <sup>1</sup>	3
CISS:3xx/4xx	CIS Upper Level Elective - See Program Contact	3
Hours		15

#### Spring Semester

Humanities Requirement <sup>3</sup>	3	
Arts/Humanities/Global Diversity Requirement <sup>3</sup>	3	
Complex Issues Requirement	3	
CISS:450	Applied Data Mining <sup>2</sup>	3
CISS:451	Senior Programming Projects <sup>2</sup>	3
Hours		15
Total Hours		122-123

### Program Notes

- <sup>1</sup> Traditionally Fall Only (See Program Contact).
- <sup>2</sup> Traditionally Spring Only (See Program Contact).
- <sup>3</sup> All students pursuing a bachelor's degree at the University of Akron must complete the General Education requirements. For efficient completion of UA General Education requirements, it is recommended that students choose General Education classes that also satisfy the Global Diversity and Domestic Diversity areas as shown.
- <sup>4</sup> Fulfills the Social Science Requirement
- <sup>5</sup> MATH:145 Algebra for Calculus may be completed in place of MATH:152 and MATH:153.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education Mathematics, Statistics, and Logic, Writing First Course, and Speaking requirements.**

## Electives

The CIS Elective may be chosen from the following list:

Code	Title	Hours
CISS:321	Server-Side Scripting	3
CISS:331	Programming for Cybersecurity	3
CISS:360	Java Programming II	3
CISS:388	Advanced UNIX/Linux	3
CISS:470	Database Management II	3
CISS:480	Current Topics in Computer Information Systems	3

## Computer Science, Certificate

### Certificate in Computer Science (346000C)

To qualify for the Computer Science Certificate Program, a student must have earned a bachelor's degree in another major program and must submit to the department chair of Computer Science a written request for admission to the program. The request will outline the student's reasons and goals for enrolling in the program. A minimum grade-point average of 2.00 in the certificate program is required. To minimize double counting of credits among different degree programs, the elective credits earned in the certificate program cannot be counted towards any other programs (major, minor or certificate) at The University of Akron. In addition, the credits earned in the Computer Science certificate program cannot be counted towards the Computer Science Minor Program.

The following information has official approval of the **Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Computer Science" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. The credits earned in the certificate program cannot be counted towards the Computer Science minor program.

## Summary

Code	Title	Hours
Required Courses		18-19
Electives		6
Total Hours		24-25

## Required Courses

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:210	Calculus with Business Applications	3-4
or MATH:221	Analytic Geometry-Calculus I	
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4
CPSC:316	Data Structures	3
Total Hours		18-19

## Electives

Code	Title	Hours
<b>Select 6 credits of 300/400-Level Computer Science Electives</b>		<b>6</b>
CPSC:3XX	300-level Computer Science Elective	
CPSC:4XX	400-level Computer Science Elective	
Total Hours		6

## Computer Science, Management, BSCS

### Bachelor of Science in Computer Science, Management (346003BS)

More on the Computer Science, Management major (<https://www.uakron.edu/computer-science/academics/undergraduate-programs/bcs-management.dot>)

A variant of the Bachelor of Science, Computer Science program tailored to learning about designing and developing systems for business information management.

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in computer science are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum to gain full admission to their program of study. For Computer Science, the student must have completed 30 credits of work and have the approval of the Dean of the College. In addition, the student must have completed the following classes, each with a C or better:

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:221	Analytic Geometry-Calculus I	4
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4

## Accelerated BS/MS program

The department offers B.S. Computer Science students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Computer Science with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Natural Science Requirement	8
	Preadmission Major Core Requirements	16
	Computer Science - Management Core	33-35
	Computer Science - Management Electives	12
	Additional Credits for Graduation *	17-15
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.0 GPA is required in all major coursework.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## General Education

Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Natural Science Requirement

Code	Title	Hours
	<b>Select eight credits from among the following:</b>	<b>8</b>
BIOL:111	Principles of Biology I	4
CHEM:151	Principles of Chemistry I	
& CHEM:152	and Principles of Chemistry I Laboratory	
GEOL:101	Introductory Physical Geology	
PHYS:291	Elementary Classical Physics I	
or PHYS:261	Physics for Life Sciences I	
	<b>Total Hours</b>	<b>12</b>

## Preadmission Major Core Requirements

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:221	Analytic Geometry-Calculus I	4
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4
	<b>Total Hours</b>	<b>16</b>

## Computer Science - Management Core

Code	Title	Hours
MATH:222	Analytic Geometry-Calculus II	4
CPSC:316	Data Structures	3
CPSC:435	Algorithms	3
CPSC:475	Database Management	3
CPSC:480	Software Engineering	3
CPSC:490	Senior Seminar in Computer Science	3
STAT:401	Probability and Statistics for Engineers	2-4
or STAT:461	Applied Statistics	
CPEN:320	Computer Systems	3
CPEN:325	Operating Systems Concepts	3
or CPSC:426	Operating Systems	
MGMT:301	Management: Principles & Concepts	3
or HCM:480	Introduction to Health-Care Management	



ISM:310	Business Information Systems	3
Total Hours		33-35

## Computer Science - Management Electives

Code	Title	Hours
<b>Select a minimum of six credits of CPSC upper level electives</b>		<b>6</b>
CPSC:3xx <sup>1</sup>		
CPSC:4xx <sup>2</sup>		
<b>Select a minimum of six additional credits of approved 300 and/or 400 electives in Computer Science or related to Computer Science from the following pre-approved list:</b>		<b>6</b>
CISS:204	WAN Technologies	
GEOG:405	Geographic Information Systems	
GEOG:407	Advanced Geographic Information Systems	
MATH:312	Linear Algebra	
MATH:410	Advanced Linear Algebra	
MATH:415	Combinatorics & Graph Theory	
MATH:427	Applied Numerical Methods I	
MATH:428	Applied Numerical Methods II	
MATH:430	Numerical Solutions for Partial Differential Equations	
MATH:436	Mathematical Models	
STAT:480	Statistical Data Management	
CPEN:420	Computer Systems Design	
CPEN:422	Embedded Systems Interfacing	
CPEN:427	Computer Networks	
CPEN:465	Programmable Logic	
BMEN:420	Biomedical Signal & Image Processing	
CPSC:3xx <sup>1</sup>		
CPSC:4xx <sup>2</sup>		
Total Hours		12

<sup>1</sup> Only 3 credits of CPSC:395 Internship in Computer Science may count toward the Computer Science - Management Electives.

<sup>2</sup> CPSC:489 Topics in Computer Science may be repeated under different topics.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
MATH:208	Introduction to Discrete Mathematics	4
CPSC:209	Computer Science I	4
	Writing Requirement I	3
	General Elective	3
Hours		14
Spring Semester		
MATH:221	Analytic Geometry-Calculus I	4
CPSC:210	Computer Science II	4
	Writing Requirement II	3
	General Elective	3
Hours		14

### 2nd Year

#### Fall Semester

MATH:222	Analytic Geometry-Calculus II	4
CPSC:475	Database Management	3
	General Elective	3
	Social Science Requirement	3
	Speaking Requirement	3
Hours		16

#### Spring Semester

CPSC:480	Software Engineering	3
CPSC:316	Data Structures	3
CPSC:3xx/4xx	Upper-Level Computer Science Elective	3
	Natural Science Requirement	4
	General Elective	3
Hours		16

### 3rd Year

#### Fall Semester

STAT:401	Probability and Statistics for Engineers	2-4
or STAT:461	or Applied Statistics	
CPEN:320	Computer Systems	3
ISM:310	Business Information Systems	3
	Arts/Humanities Requirement	3
	Natural Science Requirement	4
Hours		15-17

#### Spring Semester

CPSC:426	Operating Systems	3
or CPEN:325	or Operating Systems Concepts	
MGMT:301	Management: Principles & Concepts	3
or HCM:480	or Introduction to Health-Care Management	
	Arts/Humanities Requirement	3
	Complex Issues Requirement	3
	Social Science Requirement	3
Hours		15

### 4th Year

#### Fall Semester

CPSC:435	Algorithms	3
CPSC:3xx/4xx	Upper-Level Computer Science Elective	3
	Arts/Humanities Requirement	3
	Domestic Diversity Requirement	3
	General Elective	3
Hours		15

#### Spring Semester

CPSC:490	Senior Seminar in Computer Science	3
CPSC:3xx/4xx	Upper-Level Computer Science Elective	3
CPSC:3xx/4xx	Upper-Level Computer Science Elective	3
	General Elective	3
	Global Diversity Requirement	3
Hours		15
Total Hours		120-122

## Computer Science, Minor

### Minor in Computer Science (346000M)

To qualify for the Computer Science Minor Program, a student must be in good academic standing in the major department, must have completed four credits of mathematics in the Department of Mathematics and must submit to the department chair of Computer Science a written request for admission to the program. The request will outline the student's reasons and goals for enrolling in the program. A minimum grade-point average of 2.00 in the minor is required. To minimize double counting of credits among different degree programs, the elective credits earned in the minor program cannot be counted towards any other programs (major, minor or certificate) at The University of Akron. In addition, the credits earned in the Computer Science minor program cannot be counted towards the Computer Science Certificate Program.

The following information has official approval of the **Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Computer Science" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. The credits earned in the minor program cannot be counted towards the Computer Science certificate program. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Required Courses		18-19
Electives		6
Total Hours		24-25

### Required Courses

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:210	Calculus with Business Applications	3-4
or MATH:221	Analytic Geometry-Calculus I	
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4
CPSC:316	Data Structures	3
Total Hours		18-19

### Electives

Code	Title	Hours
<b>Select 6 credits of 300/400-Level Computer Science Electives</b>		<b>6</b>
CPSC:3xx	300-level Computer Science Elective	
CPSC:4xx	400-level Computer Science Elective	
Total Hours		6

## Computer Science, Systems, BSCS

### Bachelor of Science in Computer Science, Systems (346004BS)

More on the Computer Science, Systems major (<https://www.uakron.edu/computer-science/academics/undergraduate-programs/bscs-system.dot>)

A variant of the Bachelor of Science, Computer Science program allowing customization of the necessary courses.

### Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in computer science are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum to gain full admission to their program of study. For Computer Science, the student must have completed 30 credits of work and have the approval of the Dean of the College. In addition, the student must have completed the following classes, each with a C or better:

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:221	Analytic Geometry-Calculus I	4
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4

### Accelerated BS/MS program

The department offers B.S. Computer Science students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Computer Science with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Natural Science Requirement	8
	Preadmission Major Core Requirements	16
	Computer Science - Systems Core	30-32
	Computer Science - Systems Electives	15
	Additional Credits for Graduation *	17-15
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A 2.0 GPA is required in all major coursework.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## General Education

Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Natural Science Requirement

Code	Title	Hours
	<b>Select eight credits from among the following:</b>	<b>8</b>
BIOL:111	Principles of Biology I	
CHEM:151 & CHEM:152	Principles of Chemistry I and Principles of Chemistry I Laboratory	
GEOL:101	Introductory Physical Geology	

PHYS:261	Physics for Life Sciences I	
or PHYS:291	Elementary Classical Physics I	
<b>Total Hours</b>		<b>8</b>

## Preadmission Major Core Requirements

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:209	Discrete Mathematics for Educators	4
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4
<b>Total Hours</b>		<b>16</b>

## Computer Science - Systems Core

Code	Title	Hours
MATH:222	Analytic Geometry-Calculus II	4
CPSC:316	Data Structures	3
CPSC:307	Internet Systems Programming	3
CPSC:421	Object-Oriented Programming	3
CPSC:435	Algorithms	3
CPSC:480	Software Engineering	3
CPSC:490	Senior Seminar in Computer Science	3
STAT:401	Probability and Statistics for Engineers	2-4
or STAT:461	Applied Statistics	
CPEN:320	Computer Systems	3
CPEN:325	Operating Systems Concepts	3
or CPSC:426	Operating Systems	
<b>Total Hours</b>		<b>30-32</b>

## Computer Science - Systems Electives

Code	Title	Hours
	<b>Select a minimum of nine credits of 3460 upper level electives</b>	<b>9</b>
CPSC:3xx <sup>1</sup>		
CPSC:4xx <sup>2</sup>		
	<b>Select a minimum of six additional credits of approved 300 and/or 400 electives in Computer Science or related to Computer Science from the following pre-approved list:</b>	<b>6</b>
CISS:204	WAN Technologies	
GEOG:405	Geographic Information Systems	
GEOG:407	Advanced Geographic Information Systems	
MATH:312	Linear Algebra	
MATH:410	Advanced Linear Algebra	
MATH:415	Combinatorics & Graph Theory	
MATH:427	Applied Numerical Methods I	
MATH:428	Applied Numerical Methods II	
MATH:430	Numerical Solutions for Partial Differential Equations	
MATH:436	Mathematical Models	
STAT:480	Statistical Data Management	
CPEN:420	Computer Systems Design	
CPEN:422	Embedded Systems Interfacing	
CPEN:427	Computer Networks	
CPEN:465	Programmable Logic	

BMEN:420	Biomedical Signal & Image Processing	
CPSC:3xx <sup>1</sup>		
CPSC:4xx <sup>2</sup>		
<i>The following course does not satisfy this requirement:</i>		
CPSC:406	Introduction to C & UNIX	
Total Hours		15

<sup>1</sup> Only 3 credits of CPSC:395 Internship in Computer Science may count toward the Computer Science - Systems Electives.

<sup>2</sup> CPSC:489 Topics in Computer Science may be repeated under different topics.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
MATH:208	Introduction to Discrete Mathematics	4
CPSC:209	Computer Science I	4
	Writing Requirement I	3
	General Elective	3
Hours		14

### Spring Semester

MATH:221	Analytic Geometry-Calculus I	4
CPSC:210	Computer Science II	4
	Writing Requirement II	3
	General Elective	3
Hours		14

### 2nd Year

Fall Semester		Hours
MATH:222	Analytic Geometry-Calculus II	4
CPSC:421	Object-Oriented Programming	3
	General Elective	3
	Social Science Requirement	3
	Speaking Requirement	3
Hours		16

### Spring Semester

CPSC:316	Data Structures	3
CPSC:480	Software Engineering	3
CPSC:3xx/4xx	Upper-Level Computer Science Elective	3
	Natural Science Requirement	4
	General Elective	3
Hours		16

### 3rd Year

Fall Semester		Hours
CPSC:307	Internet Systems Programming	3
STAT:401 or STAT:461	Probability and Statistics for Engineers or Applied Statistics	2-4
CPEN:320	Computer Systems	3
	Arts/Humanities Requirement	3
	Natural Science Requirement	4
Hours		15-17

### Spring Semester

CPSC:426 or CPEN:325	Operating Systems or Operating Systems Concepts	3
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CPSC:3xx/4xx	Upper Level Computer Science Elective	3
	Arts/Humanities Requirement	3
	Complex Issues Requirement	3
	Social Science Requirement	3
Hours		15

### 4th Year

#### Fall Semester

CPSC:435	Algorithms	3
CPSC:3xx/4xx	Upper Level Computer Science Elective	3
	Arts/Humanities Requirement	3
	Domestic Diversity Requirement	3
	General Elective	3
Hours		15

#### Spring Semester

CPSC:490	Senior Seminar in Computer Science	3
CPSC:3xx/4xx	Upper-Level Computer Science Elective	3
CPSC:3xx/4xx	Upper-Level Computer Science Elective	3
	General Elective	3
	Global Diversity Requirement	3
Hours		15
Total Hours		120-122

## Computer Security, Certificate Certificate in Computer Security (225002C)

The Computer Security Certificate provides an educational foundation in the policy, management, and technical aspects of computer and information security. Students explore the criminology of high technology crime, the legal aspects of information security, the investigative process, and basic digital forensic methods. In addition, students will receive technical instruction in computer hardware and networking. Individuals working in security and investigative fields that seek to enhance their technical skills and beginners with a general interest in the subject area are welcome.

This certificate may be earned independent of earning a degree.

The following information has official approval of **The Department Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Computer Security" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		21
Total Hours		21

## Required Courses

Code	Title	Hours
DGFR:280	Cybercrime	3
DGFR:281	Computer Forensic Methods	3
CISS:201	Networking Basics	3
CISS:202 or CISS:282	Router and Routing Basics Microsoft Networking II	3
CISS:247	Hardware Support	3
CRJU:234	Computer and Information Security	3
CRJU:101	Introduction to Security Administration Technology	3
Total Hours		21

## Computer Security, Minor

### Minor in Computer Security (225002M)

The Computer Security Minor provides an educational foundation in the policy, management, and technical aspects of computer and information security. Students explore the criminology of high technology crime, the legal aspects of information security, the investigative process, and basic digital forensic methods. In addition, students will receive technical instruction in computer hardware and networking. Individuals working in security and investigative fields that seek to enhance their technical skills and beginners with a general interest in the subject area are welcome.

A minor in Computer Security may only be awarded at the time a student receives a baccalaureate degree.

The following information has official approval of **The Department of Computer Science** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Computer Security" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		21
Total Hours		21

## Required Courses

Code	Title	Hours
DGFR:280	Cybercrime	3
DGFR:281	Computer Forensic Methods	3
CISS:201	Networking Basics	3
CISS:202 or CISS:282	Router and Routing Basics Microsoft Networking II	3
CISS:247	Hardware Support	3
CRJU:234	Computer and Information Security	3

CRJU:101	Introduction to Security Administration Technology	3
Total Hours		21

## Electrical and Computer Engineering

The Department of Electrical and Computer Engineering (<https://www.uakron.edu/engineering/ECE/>) offers undergraduate programs leading to the Bachelor of Science in Electrical Engineering and the Bachelor of Science in Computer Engineering, along with both the Associate of Applied Science and Bachelor of Science in Electrical and Electronic Engineering Technology. The department also offers graduate programs leading to a Master of Science in Electrical Engineering, and an interdisciplinary Doctor of Philosophy in Engineering.

Information specific to the available program options in electrical engineering and computer engineering is available:

- Computer Engineering, BS (p. 530)
- Computer Engineering, Co-op Option, BS (p. 534)
- Electrical and Electronic Engineering Technology, AAS (p. 538)
- Electrical and Electronic Engineering Technology, BS (p. 539)
- Electrical Engineering, BS (p. 543)
- Electrical Engineering, Co-op Option, BS (p. 547)

## Electrical and Electronic Engineering Technology (EEET)

### EEET:120 Circuit Fundamentals (4 Credits)

Prerequisite: MATH 152 or permission. SI units, current, voltage, resistance, Ohm's Law, circuit analysis, network theorems, computer simulation, inductor, capacitor, RLC dc analysis, transients, laboratory support of circuit concepts, ac introduction. (Formerly 2860:120)

### EEET:121 Introduction to Electronics and Computers (2 Credits)

Prerequisite: MATH 151. Introduces students to computer simulation, Boolean algebra, circuit manufacturing, laboratory practices, and to the electronics industry. (Formerly 2860:121)

### EEET:122 AC Circuits (4 Credits)

Prerequisite: EEET 120. Corequisite: MATH 154. Sinusoidal voltage and current, reactance and impedance, methods of AC circuit analysis, AC power, transformers, AC meters and oscilloscopes, dependent and independent sources. (Formerly 2860:122)

### EEET:123 Electronic Devices (4 Credits)

Prerequisite: EEET 120. Physical theory, characteristics and operational parameters of solid-state devices. Analysis and design of electronic circuits incorporating these devices, utilizing characteristic curves and linear modeling. (Formerly 2860:123)

### EEET:210 Industrial Control Panel Fabrication (2 Credits)

Prerequisite: MATH 152. This course will introduce students to shop fabricating skills involved in the creation of electrical control panels using mechanical and electrical fabricating tools. (Formerly 2860:210)

### EEET:225 Applications of Electronic Devices (4 Credits)

Prerequisites: EEET 122 and EEET 123. Frequency response, filter concepts, electronic amplifiers, power amplifiers, multistage amplifiers, differential amplifiers, operational amplifiers, voltage regulators, feedback and oscillators, special devices, computer simulation analysis. (Formerly 2860:225)

**EEET:237 Digital Circuits (4 Credits)**

Prerequisite: EEET 121. Devices used in logic circuits, interfacing, combinational logic, arithmetic circuits, encoders, multiplexers, programmable logic devices, flip-flops, counters, shift registers, computer modeling of digital circuits. (Formerly 2860:237)

**EEET:238 Microprocessor Applications (4 Credits)**

Prerequisite: EEET 237. Programmable logic devices, computer modeling of digital circuits, memory circuits. Computer architecture, programming the microprocessor, microprocessor hardware, microprocessor applications, parallel I/O and programmable timers. (Formerly 2860:238)

**EEET:242 Machinery & Controls (3 Credits)**

Prerequisite: EEET 120 or EEET 370. Introductory study of DC and AC motors and their control. Ladder logic input devices, relays, and motor starters are explored as applied to starting DC & AC 3 Phase Induction motors. Variable Frequency Drives and Softstarts are applied with various control input schemes to AC 3 Phase Induction motors. Application of Programmable Logic Controllers and Human Machine Interfaces to the control of AC 3 Phase Induction motors. (Formerly 2860:242)

**EEET:251 Electronic Communications (4 Credits)**

Prerequisite: EEET 225. Resonance, coupling, filters, oscillators, mixers, power amplifiers, AM, FM, receivers. (Formerly 2860:251)

**EEET:260 Electrical and Electronic Project (2 Credits)**

Prerequisites: EEET 225 and EEET 242. Design, construction, and testing of an electrical or electronic circuit of choice. Progress reports, oral, and a poster presentation required. Discussion of electrical and electronic design, fabrication, and troubleshooting techniques. (Formerly 2860:260)

**EEET:290 Special Topics: Electronic Engineering Technology (1-4 Credits)**

Prerequisite: Permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor (may be repeated for a total of six credits). (Formerly 2860:290)

**EEET:310 National Electrical Code and Electrical System Design (3 Credits)**

Prerequisite: EEET 122 or EEET 370. This course provides students with the skills necessary to apply the National Electrical Code (NFPA 70) to the design and installation of electrical systems and circuits. (Formerly 2860:310)

**EEET:350 Advanced Circuit Theory (3 Credits)**

Corequisite: MATH 356. Nodal, mesh, Thevenin, and dependent sources in resistive circuits. Inductor and capacitor as time domain elements. First- and second-order circuit analysis. Phasor analysis. Operational amplifier analysis. (Formerly 2860:350)

**EEET:352 Microcontrollers (4 Credits)**

Prerequisite: EEET 238. Corequisite: EEET 350. Using a typical microcontroller, study its architecture, program it, use subroutines and interrupts, use it in various applications, utilize various on-board modules including analog-to-digital, and timers. (Formerly 2860:352)

**EEET:354 Advanced Circuits Applications (3 Credits)**

Prerequisites: MATH 356 and EEET 350. Introduction to calculus based circuit analysis. Emphasizing Laplace transforms in operational circuit analysis, transfer functions, impulse function, Bode diagrams, Fourier Series. (Formerly 2860:354)

**EEET:360 Virtual Instrumentation and Data Acquisition (3 Credits)**

Prerequisites: EEET 122 and EEET 370. An introduction to instrumentation, data acquisition (DAQ) and graphical programming used in manufacturing and laboratory environments. (Formerly 2860:360)

**EEET:370 Survey of Electronics I (3 Credits)**

Prerequisite: MATH 154. Fundamentals of DC and AC electrical circuits and rotating machinery. For non-Electrical and Electronic Engineering Technology majors. (Formerly 2860:370)

**EEET:371 Survey of Electronics II (3 Credits)**

Prerequisite: EEET 370. Survey of the most commonly used solid state circuit components including typical applications. Introduction into digital circuits and microprocessor applications. For non-Electronic Technology majors. (Formerly 2860:371)

**EEET:400 Computer Simulations in Technology (3 Credits)**

Prerequisites: MATH 345 and EEET 354. Introduce the use of software widely used in industry to simulate and study electrical circuits and signals. Methods of data sampling, management and presentation will be studied. (Formerly 2860:400)

**EEET:406 Communication Systems (3 Credits)**

Prerequisites: EEET 251 and EEET 354. Digital communications, transmission lines, waveguides, microwave devices and antennas. (Formerly 2860:406)

**EEET:420 Biomedical Electronic Instrumentation (3 Credits)**

Prerequisite: EEET 354. Introduction to electrical signals from the body, transducers, recording devices, telemetry, microprocessor applications, and electrical safety of medical equipment. (Formerly 2860:420)

**EEET:451 Industrial Electrical Systems (3 Credits)**

Prerequisite: EEET 354. Electric power, industrial nameplates, power factor correction, mutual inductance, linear transformers, power transformers, polyphase systems, per-phase analysis, system grounding, protective device coordination computer-aided analysis. (Formerly 2860:451)

**EEET:452 Advanced Microcontrollers (3 Credits)**

Prerequisite: EEET 352. This is an advanced embedded programming class for technologists covering structured programming, embedded operating systems, multitasking, semaphores and queues, WiFi, HTML and web page servers, data servers, clocks and scheduling, sending email, WAN access, Bluetooth, and UDP communication. Hands-on hardware includes LEDs, RGB LED strands, DAC/DMA audio generation, PIR proximity sensors, and may optionally include inertial sensors. (Formerly 2860:452)

**EEET:453 Control Systems (4 Credits)**

Prerequisites: EEET 354 and AMET 301. Modeling and responses of closed-loop systems. Laplace transforms, root-locus analysis. Stability, compensation, digital control, optimal control. Digital computer in system simulation and design. (Formerly 2860:453)

**EEET:455 Senior Project (2 Credits)**

Prerequisite: Senior standing. Capstone experience consisting of Electrical or Electronic Project emphasizing creative technical analysis or design and presentation. (may be repeated for a total of six credits). (Formerly 2860:455)

**Gen Ed:** - Capstone

**EEET:490 Special Topics: Electronic Engineering Technology (1-4 Credits)**

Prerequisite: Permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor (may be repeated for a total of six credits). (Formerly 2860:490)

**EEET:497 Senior Honors Project: Electronic Technology (1-3 Credits)**

Prerequisites: Senior standing in Honors Program, permission of department preceptor, and major in electronic technology. Independent research leading to completion of Senior Honors Thesis or other original work. (May be repeated for a total of six credits) (Formerly 2860:497)

## Electrical Engineering (ELEN)

### ELEN:101 Tools for Electrical Engineering (3 Credits)

Pre/Corequisite: MATH 221 or MATH 149. Orientation to degree programs and design practice in electrical and computer engineering. Introduction to computer applications and resources for engineering studies. (Formerly 4400:101)

### ELEN:230 Circuits I Laboratory (1 Credit)

Pre/Corequisite: ELEN 231. Computation, computer aided circuit analysis, circuit theorem confirmation, report writing to include data analysis and reduction, introduction to electrical measurements. (Formerly 4400:230)

### ELEN:231 Circuits I (3 Credits)

Pre/Corequisite: ELEN 230, MATH 223, PHYS 292. DC and AC linear circuit analysis. Operational amplifier circuits. Loop and nodal analyses. Network theorems. Phasor techniques, steady-state AC power, three-phase systems. (Formerly 4400:231)

### ELEN:301 Undergraduate Research I: Electrical Engineering (1 Credit)

Prerequisites: ELEN 230, ELEN 231, ELEN 330, ELEN 332, CPEN 220, [ELEN 101 or CPEN 101] with a combined average grade of 3.0 or higher, admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4400:301)

### ELEN:302 Undergraduate Research II: Electrical Engineering (1 Credit)

Prerequisites: [ELEN 301 or CPEN 301], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4400:302)

### ELEN:303 Undergraduate Research III: Electrical Engineering (1 Credit)

Prerequisites: [ELEN 302 or CPEN 302], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report to the department, and presentation of work in a research venue outside the department. (Formerly 4400:303)

### ELEN:304 Undergraduate Research IV: Electrical Engineering (1 Credit)

(May be repeated. May not be applied to degree requirements.) Prerequisite: ELEN 303 or CPEN 303, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4400:304)

### ELEN:307 Basic Electrical Engineering (4 Credits)

Prerequisite: PHYS 292. Pre/Corequisite: MATH 335. Covers fundamental aspects of electrical circuits, electronics and electrical machinery. Not open to an electrical or computer engineering major. (Formerly 4400:307)

### ELEN:309 Design Project Seminar - Electrical Engineering (1 Credit)

Prerequisites: Junior or higher standing and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: ELEN 341, [ELEN 350 or ELEN 354], ELEN 361, ELEN 371, and ELEN 381. Engineering capstone project selection and proposal, including preliminary technical specifications. Professional ethics. Intellectual property. Societal impact issues in engineering design. (Formerly 4400:309)

### ELEN:330 Circuits II Laboratory (1 Credit)

Pre/Corequisite: ELEN 332. Computation, computer aided circuit analysis, circuit theorem confirmation, report writing to include data analysis and reduction, intermediate electrical measurements. (Formerly 4400:330)

### ELEN:332 Circuits II (3 Credits)

Prerequisite: ELEN 231 with a grade of C- or better. Pre/Corequisites: MATH 335 and ELEN 330. Coupled magnetic circuits. Transient and frequency domain analyses of linear circuits. Bode plots, Laplace transforms, transfer functions, resonance, passive and active filters. (Formerly 4400:332)

### ELEN:340 Signals & Systems (4 Credits)

Prerequisites: [CPSC 209 or CPEN 208 or CPEN 210 or BMEN 220], MATH 335 with a grade of C- or better, ELEN 332 with a grade of C- or better, and admission to an engineering major within the College of Engineering and Polymer Science. Linear systems theory and transform analysis techniques for continuous and discrete systems. Convolutions, Laplace transforms, continuous and discrete Fourier transforms. Difference equations and Z transforms. (Formerly 4400:340)

### ELEN:341 Introduction to Communication Systems (3 Credits)

Prerequisites: ELEN 340 with a grade of C- or better and admission to an engineering major within the College of Engineering and Polymer Science. Introduces analog and digital communication systems and signal processing. Time-sampling and filtering. Modulation and demodulation techniques. Noise and bandwidth requirements. System design and performance analysis. (Formerly 4400:341)

### ELEN:350 Engineering Electromagnetics (4 Credits)

Prerequisites: MATH 223, ELEN 231 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: MATH 335. Vector analysis. Electrostatics: electrostatic field, scalar potential, dielectrics, boundary-value problems. Magnetostatics: Ampere's law, force and energy. Faraday's law, time-harmonic fields. Maxwell's equations: Introduction to plane waves. Propagation, reflection, and refraction, introduction to the concept of guided waves. Theory and application of transmission lines: transient and steady-state waves. The Smith chart. (Formerly 4400:350)

### ELEN:353 Electromagnetics I (4 Credits)

Prerequisites: ELEN 231 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: MATH 335. Vector analysis. Electrostatics: electrostatic field, scalar potential, dielectrics, boundary-value problems. Magnetostatics: magnetic circuits. Maxwell's equations: Faraday's law, time-harmonic fields. Introduction to plane waves. (Formerly 4400:353)

### ELEN:354 Electromagnetics II (3 Credits)

Prerequisites: ELEN 353 and admission to an engineering major within the College of Engineering and Polymer Science. Theory and application of transmission lines: transient and steady-state waves. Plane EM waves: propagation, reflection, and refraction. Waveguides open and closed-boundary guiding structures. (Formerly 4400:354)

### ELEN:360 Physical Electronics (3 Credits)

Prerequisites: ELEN 332 and admission to an engineering major within the College of Engineering and Polymer Science. PN junction, diffusion, tunneling, FET and BJT device physics, equivalent circuits for electronic devices, time and frequency analysis, biasing and logic families. (Formerly 4400:360)

### ELEN:361 Electronic Design (4 Credits)

Prerequisites: ELEN 340, ELEN 360 and admission to an engineering major within the College of Engineering and Polymer Science. Power amplification, feedback, oscillators, linear integrated circuits, modulation and demodulation circuits. (Formerly 4400:361)

**ELEN:371 Control Systems I (4 Credits)**

Prerequisites: ELEN 340 with a grade of C- or better and admission to an engineering major within the College of Engineering and Polymer Science. Introduction to servomechanisms and feedback. Modeling and response of feedback control systems. Stability of linear systems. Experiments include analog simulation and basic servomechanism. (Formerly 4400:371)

**ELEN:381 Energy Conversion (4 Credits)**

Prerequisites: ELEN 332 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: ELEN 353. Nonelectrical to electrical energy conversions and vice versa: thermal, chemical, solar. Fundamentals of electromechanical energy conversion. Principles of operation of transformers, commutator machines, induction and synchronous machines. (Formerly 4400:381)

**ELEN:401 Senior Design Project I - Electrical Engineering (3 Credits)**

Prerequisites: ELEN 309, senior standing, admission to an engineering major within the College of Engineering and Polymer Science, and ELEN 341, [ELEN 354 or ELEN 350], ELEN 361, ELEN 371, and ELEN 381 with a combined average grade of 2.0 or higher. Design and preparation phase of an engineering team project. System specification, design, and simulations; ordering of components; subsystem implementations. Requires project presentations and report. (Formerly 4400:401)

**Gen Ed:** - Capstone

**ELEN:402 Senior Design Project II - Electrical Engineering (3 Credits)**

Prerequisite: ELEN 401 and admission to an engineering major within the College of Engineering and Polymer Science. Implementation and evaluation phases of an engineering design project. Requires a project presentation and report. (Formerly 4400:402)

**Gen Ed:** - Complex Issues Facing Society

**ELEN:434 Active Circuits (3 Credits)**

Prerequisite: ELEN 340. Applications of operational amplifiers including bilinear transfer functions, scaling, cascade design, biquad circuits, lowpass, high pass, bandpass-filters, Butterworth and Chebyshev response, sensitivity, delay filters, frequency transformations, ladder design, simulated element design, leapfrog simulation and switched-capacitors. (Formerly 4400:434)

**ELEN:441 Digital Communication (3 Credits)**

Prerequisite: ELEN 341 or CPEN 440. Introduction to digital communications theory and systems. Sampling, formatting and baseband communications. Digital modulation techniques and optimal receivers. Error performance analysis. Error control. (Formerly 4400:441)

**ELEN:445 Wireless Communications (3 Credits)**

Prerequisite: ELEN 341 or CPEN 440. Theory and analysis of wireless communication systems, wireless propagation, multiple access, modulation, demodulation, multipath channel characterization, diversity, cellular and PCS services and standards. (Formerly 4400:445)

**ELEN:447 Random Signals (3 Credits)**

Prerequisite: ELEN 340. Applications of set theory, discrete and continuous sample spaces; probability, random variables, distribution functions, density functions, stochastic processes, random signals, system function, power spectrum and correlation functions. (Formerly 4400:447)

**ELEN:448 Optical Communication Networks (3 Credits)**

Prerequisites: ELEN 360. Optical waveguides and integrated components. Optical transmitters and receivers. Optical communications network design. (Formerly 4400:448)

**ELEN:451 Electromagnetic Compatibility (3 Credits)**

Prerequisite: ELEN 360. Introduction to electromagnetics, electromagnetic compatibility, crosstalk and effects on computers, communication lines and systems. (Formerly 4400:451)

**ELEN:453 Antenna Theory (3 Credits)**

Prerequisite: ELEN 354. Theory of EM radiation. Wire antennas, arrays, receiving antennas, reciprocity. Integral equations for induced currents, self and mutual impedances. Equivalence principle, radiation from aperture antennas. (Formerly 4400:453)

**ELEN:455 Microwaves (4 Credits)**

Prerequisite: ELEN 354. Dynamic fields, Maxwell's equation and wave equations. Field analysis of wave guides, microwave components, techniques and systems. (Formerly 4400:455)

**ELEN:461 Optical Electronics & Photonic Devices (3 Credits)**

Prerequisites: ELEN 360. Lightwave engineering, photonic principles and optical electronic device technology. (Formerly 4400:461)

**ELEN:469 Introduction to Sensors and Actuators (3 Credits)**

Prerequisite: Senior standing or permission. Introduction to the theory and practice of sensors and actuators; sensing and actuation technologies; performance, and interfacing. (Formerly 4400:469)

**ELEN:472 Control Systems II (4 Credits)**

Prerequisite: ELEN 371. Sampled-data control system analysis and design. Discrete-time representation of sampled-data systems. Cascade, feedforward and state-variable compensation techniques. Digital computer implementation. (Formerly 4400:472)

**ELEN:481 Modern Power Systems (3 Credits)**

Prerequisite: ELEN 381. Introduction to electricity utility load flow, faulty analysis, stability, surge protection and relaying. (Formerly 4400:481)

**ELEN:483 Power Electronics I (3 Credits)**

Prerequisite: ELEN 360. Steady-state analysis and design of power electronic converters: AC/DC converters (rectifiers), DC/DC converters, DC/AC PWM and resonant converters, AC/AC converters and cycloconverters. (Formerly 4400:483)

**ELEN:484 Power Electronics Laboratory & Design Project (2 Credits)**

Prerequisite: ELEN 483, ELEN 583 or equivalent. Experiments on different types of power electronic converters: AC/DC, DC/DC, DC/AC, and AC/AC. Design project to include design, simulation, building, and testing of a power electronic circuit. (Formerly 4400:484)

**ELEN:485 Electric Motor Drives (3 Credits)**

Prerequisite: ELEN 381. Application of electric machines, choice of motor for particular drive. Application of power semiconductor circuits in electric machinery. (Formerly 4400:485)

**ELEN:486 Dynamics of Electric Machines (3 Credits)**

See department for course description. (Formerly 4400:486)

**ELEN:487 Electromagnetic Design of Electric Machines (3 Credits)**

See department for course description. (Formerly 4400:487)

**ELEN:488 Control of Machines (4 Credits)**

See department for course description. (Formerly 4400:488)

**ELEN:489 Electric and Hybrid Vehicles (3 Credits)**

Prerequisite: ELEN 381. Basic principles of electric and hybrid vehicles. Characteristics of electric machines, internal combustion engines, transmissions, batteries, fuel cells, ultracapacitors. Vehicle control strategies, communication networks, and overall system integration. (Formerly 4400:489)



**ELEN:498 Special Topics: Electrical Engineering (1-3 Credits)**

(May be taken more than once) Prerequisite: Permission of department chair. Special topics in electrical engineering. (Formerly 4400:498)

**Computer Engineering (CPEN)****CPEN:101 Tools for Computer Engineering (3 Credits)**

Pre/Corequisite: MATH 221 or MATH 149. Orientation to degree programs and design practice in electrical and computer engineering. Introduction to computer applications and resources for engineering studies. (Formerly 4450:101)

**CPEN:208 Programming for Engineers (3 Credits)**

Prerequisite: ELEN 101 or permission. Introduction to programming. Environment and tools. C programming language. Machine level data forms and organization. (Formerly 4450:208)

**CPEN:210 Computational Problem Solving (3 Credits)**

Pre/Corequisites: [CPEN 208 or CPSC 209] and MATH 335. Elements of computation required for modeling and analysis of engineering systems. Complex algebra, linear systems of equations, numerical calculus, difference and differential equations, solution of nonlinear equations. (Formerly 4450:210)

**CPEN:220 Digital Logic Design (4 Credits)**

Corequisites: ELEN 101 or CPEN 101 or BMEN 101. Boolean algebra and simplification of logic functions. Combinational and synchronous sequential circuits. Laboratory projects include design of digital systems with hardware description language and simulation. (Formerly 4450:220)

**CPEN:221 Digital Logic Design (3 Credits)**

Pre/Corequisites: ELEN 101 or CPEN 101 or BMEN 101. Boolean algebra and simplification of logic functions. Combinational and sequential circuits. Finite-state machine descriptions. (Formerly 4450:221)

**CPEN:222 Digital Logic Design Laboratory (1 Credit)**

Pre/Corequisite: CPEN 221. Design of digital systems with hardware description language and simulation. (Formerly 4450:222)

**CPEN:301 Undergraduate Research I: Computer Engineering (1 Credit)**

Prerequisites: completion of [ELEN 101 or CPEN 101], ELEN 230, ELEN 231, ELEN 330, ELEN 332 and CPEN 220 with a combined average grade of 3.0 or higher, admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4450:301)

**CPEN:302 Undergraduate Research II: Computer Engineering (1 Credit)**

Prerequisites: [ELEN 301 or CPEN 301], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4450:302)

**CPEN:303 Undergraduate Research III: Computer Engineering (1 Credit)**

Prerequisites: [ELEN 302 or CPEN 302], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report to the department, and presentation of work in a research venue outside the department. (Formerly 4450:302)

**CPEN:304 Undergraduate Research IV: Computer Engineering (1 Credit)**

(May be repeated. May not be applied to degree requirements.) Prerequisite: CPEN 303 or ELEN 303, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4450:304)

**CPEN:309 Design Project Seminar - Computer Engineering (1 Credit)**

Prerequisites: Junior or higher standing and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: [CPSC 426 or CPEN 325], CPEN 367, [CPEN 420 or CPEN 427], CPEN 422, and CPEN 440. Engineering capstone project selection and proposal, including preliminary technical specifications. Professional ethics. Intellectual property. Societal impact issues in engineering design. (Formerly 4450:309)

**CPEN:320 Computer Systems (3 Credits)**

Prerequisites: [CPSC 209 or CPEN 208] and [CPEN 220 or CPEN 221 or MATH 208]. Introduces the design and architecture of modern computer systems. Data and instruction representation. Conventional computer organization. Hardware and software design processes. The hardware/software interface. (Formerly 4450:320)

**CPEN:325 Operating Systems Concepts (3 Credits)**

Prerequisites: CPEN 320, CPSC 210. Processes and threads. Process communication and resource sharing. Deadlock resolution. Memory management. File systems. Introduction to network operating systems. (Formerly 4450:325)

**CPEN:367 VLSI Design (3 Credits)**

Prerequisites: ELEN 360 and admission to an engineering major within the College of Engineering and Polymer Science. Digital logic circuits. Very large scale integration (VLSI) fabrication processes and layout design. Delay and power of digital circuits. Latches and flip-flops in VLSI. Memory design. System-level design issues. Design project. (Formerly 4450:367)

**CPEN:401 Senior Design Project I - Computer Engineering (3 Credits)**

Prerequisites: CPEN 309, senior standing, admission to an engineering major within the College of Engineering and Polymer Science, and completion of [CPSC 426 or CPEN 325], CPEN 367, [CPEN 420 or CPEN 427], CPEN 422, and CPEN 440 with a combined average grade of 2.0 or higher. Design and preparation phase of an engineering team project. System specification, design, and simulations; ordering of components; subsystem implementations. Requires project presentations and report. (Formerly 4450:401)

**Gen Ed:** - Capstone

**CPEN:402 Senior Design Project II - Computer Engineering (3 Credits)**

Prerequisites: CPEN 401 and admission to an engineering major within the College of Engineering and Polymer Science. Implementation and evaluation phases of an engineering design project. Requires a project presentation and report. (Formerly 4450:402)

**Gen Ed:** - Complex Issues Facing Society

**CPEN:410 Embedded Scientific Computing (3 Credits)**

Prerequisites: [CPEN 208 or CPSC 209] and ELEN 340. Fixed point, floating point representation and coding. Processor/DSP implementations. Assemblers, C language semantics. Adapting scientific library routines for embedded use. Minimizing complexity. Ill-conditioned problems. (Formerly 4450:410)

**CPEN:415 System Simulation (3 Credits)**

Prerequisite: ELEN 371 or CPEN 440. Computer simulation of dynamic systems. Discrete system stability, linear multistep and Runge-Kutta methods, nonlinear systems, stiff systems, distributed systems and real-time computing. (Formerly 4450:415)

**CPEN:420 Computer Systems Design (3 Credits)**

Prerequisite: CPEN 320. Design of advanced processors at the microarchitecture level. Pipelining. Superscalar, vector and VLIW architectures. Instruction-level parallelism. Compiler support. Multiprocessor architectures. (Formerly 4450:420)

**CPEN:422 Embedded Systems Interfacing (3 Credits)**

Prerequisites: [CPSC 209 or CPEN 208], CPEN 220, ELEN 332 and admission to an engineering major within the College of Engineering and Polymer Science. Microcontroller structures and embedded peripherals. Interfaces to physical environments. Software access to peripherals including timers, ADCs and DACs. Synchronous and asynchronous communications. Interrupts. Real-time operating systems. (Formerly 4450:422)

**CPEN:427 Computer Networks (3 Credits)**

Prerequisite: CPEN 320; CPEN 325 or CPSC 426. Network architecture and protocol layering. Network design principles, communication protocols, and performance measures. Socket programming, routing, error detection and correction, access control, multimedia networking. (Formerly 4450:427)

**CPEN:440 Digital Signal Processing (3 Credits)**

Prerequisites: ELEN 340 and admission to an engineering major within the College of Engineering and Polymer Science. Signal sampling and reconstruction; data-converter models. Unilateral and bilateral z transforms. Discrete Fourier Transform (DFT); Fast Fourier Transform (FFT). Digital filter structures and design methods. (Formerly 4450:440)

**CPEN:462 Analog Integrated Circuit Design (3 Credits)**

Prerequisite: ELEN 360. CMOS processes and layout; amplifiers, current mirrors, and comparators; current, voltage, and bandgap references; switched capacitor circuits. Frequency and noise analysis techniques. (Formerly 4450:462)

**CPEN:465 Programmable Logic (3 Credits)**

Prerequisites: [CPEN 220 or {CPEN 221 and CPEN 222}], and [CPSC 209 or CPEN 208]. Digital design with programmable devices. PLD and FPGA architectures. Logic design and technology mapping tools. (Formerly 4450:465)

**CPEN:467 VLSI Circuits & Systems (3 Credits)**

Prerequisite: CPEN 367. High performance adders and multipliers for very large scale integration (VLSI) systems. Architectural synthesis. Design for high performance, low power, and testability. (Formerly 4450:467)

**CPEN:498 Special Topics: Computer Engineering (1-3 Credits)**

(May be taken more than once) Prerequisite: Permission of department chair. Special topics in computer engineering. (Formerly 4450:498)

## Computer Engineering, BS

### Bachelor of Science in Computer Engineering without Co-op (445000BS)

In addition to traditional large computer applications, devices containing some form of embedded computing system are becoming pervasive in our society. Computer engineers design and develop hardware and software for all of these systems, ranging from software applications to communication networks to components in computing systems to small embedded sensors. Branches of computer engineering include operating systems, embedded systems design, digital circuits, algorithms, software design, and computer architecture among others. Important applications include wired and wireless networks, simulation, automation, digital control, sensing, robotics, "apps," data management, and many others.

The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org>). Our comprehensive curriculum prepares students to identify, formulate, and implement solutions to real-world problems. Students learn how to use modern engineering tools in well-equipped laboratories, with activities that reinforce the concepts learned in the classroom. The

curriculum emphasizes design and teamwork, and culminates in a capstone senior design project that integrates the material learned in earlier courses.

The program educational objectives (PEOs) for the Computer Engineering program are that, within a few years after graduation, our Computer Engineering graduates:

- achieve competitively compensated computer engineering positions or related professional positions, or entry into programs of advanced study
- prove to be highly competent and productive in computer engineering or related practice
- continue to develop professionally through both practical experience and a lifelong commitment to learning
- exhibit high standards of ethical conduct, societal responsibility, and professionalism in engineering

The Computer Engineering program has specified these student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

The Bachelor of Science in Computer Engineering can be combined with the "Cooperative Education, College of Engineering and Polymer Science" certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Computer Engineering can be earned without the certificate, with a nominal four-year plan of study.

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major.

Students must show success in key classes early in the program curriculum before they gain approval to take classes in the third year of the curriculum and beyond.

The following information has official approval of the **Department of Electrical and Computer Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	24
	Natural Science	12
	Mathematics and Statistics	21
	Computer Science	8
	Electrical Engineering	15
	Computer Engineering	28
	Capstone Design Project	7
	Computer Engineering Electives	18
	<b>Total Hours</b>	<b>133</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## General Education

Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
	<b>Total Hours</b>	<b>12</b>

## Mathematics and Statistics

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
STAT:401	Probability and Statistics for Engineers	2-4
or STAT:461	Applied Statistics	
	<b>Total Hours</b>	<b>21-23</b>

## Computer Science

Code	Title	Hours
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4
	<b>Total Hours</b>	<b>8</b>

## Electrical Engineering

Code	Title	Hours
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
ELEN:340	Signals & Systems	4
ELEN:360	Physical Electronics	3
	<b>Total Hours</b>	<b>15</b>

## Computer Engineering

Code	Title	Hours
CPEN:101	Tools for Computer Engineering	3
CPEN:320	Computer Systems	3
CPEN:325	Operating Systems Concepts	3
or CPSC:426	Operating Systems	
CPEN:221	Digital Logic Design	3
CPEN:222	Digital Logic Design Laboratory	1
CPEN:367	VLSI Design	3
CPEN:420	Computer Systems Design	3
CPEN:422	Embedded Systems Interfacing	3

CPEN:427	Computer Networks	3
CPEN:440	Digital Signal Processing	3
Total Hours		28

## Capstone Design Project

Code	Title	Hours
CPEN:309	Design Project Seminar - Computer Engineering	1
CPEN:401	Senior Design Project I - Computer Engineering	3
CPEN:402	Senior Design Project II - Computer Engineering	3
Total Hours		7

## Computer Engineering Electives

**Code**                      **Title**    **Hours**  
**Select 18 credits from the following list, according to departmental Breadth and Depth requirements, and with at least 9 credits from the ELEN or CPEN subject areas:**                      **18**

CPEN:301	Undergraduate Research I: Computer Engineering	
CPEN:302	Undergraduate Research II: Computer Engineering	
CPEN:303	Undergraduate Research III: Computer Engineering	
CPEN:410	Embedded Scientific Computing	
CPEN:415	System Simulation	
CPEN:462	Analog Integrated Circuit Design	
CPEN:465	Programmable Logic	
CPEN:467	VLSI Circuits & Systems	
CPEN:498	Special Topics: Computer Engineering	
ELEN:341	Introduction to Communication Systems	
ELEN:353	Electromagnetics I	
ELEN:354	Electromagnetics II	
ELEN:361	Electronic Design	
ELEN:371	Control Systems I	
ELEN:381	Energy Conversion	
ELEN:434	Active Circuits	
ELEN:441	Digital Communication	
ELEN:445	Wireless Communications	
ELEN:447	Random Signals	
ELEN:448	Optical Communication Networks	
ELEN:451	Electromagnetic Compatibility	
ELEN:453	Antenna Theory	
ELEN:455	Microwaves	
ELEN:461	Optical Electronics & Photonic Devices	
ELEN:469	Introduction to Sensors and Actuators	
ELEN:472	Control Systems II	
ELEN:481	Modern Power Systems	
ELEN:483	Power Electronics I	
ELEN:485	Electric Motor Drives	
ELEN:486	Dynamics of Electric Machines	
ELEN:487	Electromagnetic Design of Electric Machines	
ELEN:488	Control of Machines	
ELEN:489	Electric and Hybrid Vehicles	
MATH:427	Applied Numerical Methods I	
MATH:428	Applied Numerical Methods II	
CPSC:316	Data Structures	

CPSC:421	Object-Oriented Programming	
CPSC:435	Algorithms	
CPSC:440	Compiler Design	
CPSC:453	Computer Security	
CPSC:457	Computer Graphics	
CPSC:460	Artificial Intelligence & Heuristic Programming	
CPSC:475	Database Management	
CPSC:477	Introduction to Parallel Processing	
Total Hours		18

## Recommended Sequence with Cooperative Education

This plan of study shows the recommended schedule for students who are also earning the "Cooperative Education, College of Engineering and Polymer Science certificate". Together, the Bachelor of Science and certificate require a five-year plan of study. The program recommends that students earn this certificate.

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CPEN:101	Tools for Computer Engineering	3
Hours		14

### Spring Semester

ENGL:112	English Composition II <sup>1,2</sup>	3
MATH:208	Introduction to Discrete Mathematics	4
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CPEN:221	Digital Logic Design	3
CPEN:222	Digital Logic Design Laboratory	1
Hours		19

### 2nd Year

#### Fall Semester

CPSC:209	Computer Science I	4
MATH:223	Analytic Geometry-Calculus III	4
PHYS:292	Elementary Classical Physics II	4
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
General Education or Honors Distribution <sup>3</sup>		3
Hours		19

#### Spring Semester

CPSC:210	Computer Science II	4
MATH:335	Introduction to Ordinary Differential Equations	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
CPEN:320	Computer Systems	3
General Education or Honors Distribution		3
Hours		17

**Summer Semester**

GNEN:300	Cooperative Education Work Period (possible)	0
	Hours	0

**3rd Year****Fall Semester**

ELEN:340	Signals & Systems	4
ELEN:360	Physical Electronics	3
CPEN:325 or CPSC:426	Operating Systems Concepts or Operating Systems	3
CPEN:422	Embedded Systems Interfacing	3
	General Education or Honors Distribution <sup>3</sup>	3
CPEN:301	Undergraduate Research I: Computer Engineering (Optional)	
	Hours	16

**Spring Semester**

GNEN:301	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
	Hours	0

**Summer Semester**

STAT:401	Probability and Statistics for Engineers	2
	General Education or Honors Distribution <sup>3</sup>	3
CPEN:302	Undergraduate Research II: Computer Engineering (Optional)	
	Hours	5

**4th Year****Fall Semester**

GNEN:302	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
	Hours	0

**Spring Semester**

CPEN:309	Design Project Seminar - Computer Engineering	1
CPEN:367	VLSI Design	3
CPEN:420	Computer Systems Design	3
CPEN:427	Computer Networks	3
CPEN:440	Digital Signal Processing	3
CPEN:303	Undergraduate Research III: Computer Engineering (Optional)	
	Hours	13

**Summer Semester**

GNEN:403	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
	Hours	0

**5th Year****Fall Semester**

CPEN:401	Senior Design Project I - Computer Engineering	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	Hours	15

**Spring Semester**

CPEN:402	Senior Design Project II - Computer Engineering	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	Hours	15
	Total Hours	133

<sup>1</sup> Honors sections may be available; honors students should check the schedule of classes.

<sup>2</sup> Check General Education Program or Honors Distribution to find courses that satisfy the Writing Second Course requirement. While ENGL:112 is preferred, ENGL:222 Technical Report Writing is accepted to fulfill the English composition elective.

<sup>3</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

<sup>4</sup> Computer Engineering Electives must be chosen to meet Breadth and Depth requirements. See Electrical and Computer Engineering Departmental Office for Approved Computer Engineering Electives (including Breadth and Depth requirements).

<sup>5</sup> Up to three credits of undergraduate research in Computer Engineering may be applied to program requirements as Computer Engineering Electives. Students may take at most one credit of undergraduate research in a semester.

## Recommended Schedule without Cooperative Education

If a student chooses not to earn the Cooperative Education certificate, the following four-year plan of study is used.

**1st Year**

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CPEN:101	Tools for Computer Engineering	3
	Hours	14

**Spring Semester**

ENGL:112	English Composition II <sup>1,2</sup>	3
MATH:208	Introduction to Discrete Mathematics	4
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CPEN:221	Digital Logic Design	3
CPEN:222	Digital Logic Design Laboratory	1
	Hours	19

**2nd Year****Fall Semester**

CPSC:209	Computer Science I	4
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
	General Education or Honors Distribution <sup>3</sup>	3
	Hours	19

**Spring Semester**

CPSC:210	Computer Science II	4
MATH:335	Introduction to Ordinary Differential Equations	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
CPEN:320	Computer Systems	3
	General Education or Honors Distribution <sup>3</sup>	3
	Hours	17

**3rd Year****Fall Semester**

ELEN:340	Signals & Systems	4
ELEN:360	Physical Electronics	3
CPEN:325 or CPSC:426	Operating Systems Concepts or Operating Systems	3
CPEN:422	Embedded Systems Interfacing	3
	General Education or Honors Distribution <sup>3</sup>	3
CPEN:301	Undergraduate Research I: Computer Engineering (Optional)	
	Hours	16

**Spring Semester**

CPEN:309	Design Project Seminar - Computer Engineering	1
CPEN:367	VLSI Design	3
CPEN:420	Computer Systems Design	3
CPEN:427	Computer Networks	3
CPEN:440	Digital Signal Processing	3
CPEN:302	Undergraduate Research II: Computer Engineering (Optional)	
	Hours	13

**Summer Semester**

STAT:401	Probability and Statistics for Engineers	2
	General Education or Honors Distribution <sup>3</sup>	3
CPEN:303	Undergraduate Research III: Computer Engineering (Optional)	
	Hours	5

**4th Year****Fall Semester**

CPEN:401	Senior Design Project I - Computer Engineering	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3

	General Education or Honors Distribution <sup>3</sup>	3
	Hours	15
<b>Spring Semester</b>		
CPEN:402	Senior Design Project II - Computer Engineering	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3
	Computer Engineering Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	Hours	15
	Total Hours	133

<sup>1</sup> Honors sections may be available; honors students should check the schedule of classes.

<sup>2</sup> Check General Education Program or Honors Distribution to find courses that satisfy the Writing Second Course requirement. While ENGL:112 is preferred, ENGL:222 Technical Report Writing is accepted to fulfill the English composition elective.

<sup>3</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

<sup>4</sup> Computer Engineering Electives must be chosen to meet Breadth and Depth requirements. See Electrical and Computer Engineering Departmental Office for Approved Computer Engineering Electives (including Breadth and Depth requirements).

<sup>5</sup> Up to three credits of undergraduate research in Computer Engineering may be applied to program requirements as Computer Engineering Electives. Students may take at most one credit of undergraduate research in a semester.

## Computer Engineering, Co-op Option, BS

### Bachelor of Science in Computer Engineering with Co-op (445005BS)

This option of the undergraduate program in Computer Engineering includes a cooperative education component.

In addition to traditional large computer applications, devices containing some form of embedded computing system are becoming pervasive in our society. Computer engineers design and develop hardware and software for all of these systems, ranging from software applications to communication networks to components in computing systems to small embedded sensors. Branches of computer engineering include operating systems, embedded systems design, digital circuits, algorithms, software design, and computer architecture among others. Important applications include wired and wireless networks, simulation, automation, digital control, sensing, robotics, "apps," data management, and many others.

The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org>).

Our comprehensive curriculum prepares students to identify, formulate, and implement solutions to real-world problems. Students learn how to use modern engineering tools in well-equipped laboratories, with

activities that reinforce the concepts learned in the classroom. The curriculum emphasizes design and teamwork, and culminates in a capstone senior design project that integrates the material learned in earlier courses. The Computer Engineering program offers two options, with and without a co-operative education component; our well-established co-op program enables students to strengthen the connections between theory and practice in a professional setting, and provides valuable industrial experience.

The program educational objectives (PEOs) for the Computer Engineering program are that, within a few years after graduation, our Computer Engineering graduates:

- achieve competitively compensated computer engineering positions or related professional positions, or entry into programs of advanced study
- prove to be highly competent and productive in computer engineering or related practice
- continue to develop professionally through both practical experience and a lifelong commitment to learning
- exhibit high standards of ethical conduct, societal responsibility, and professionalism in engineering

The Computer Engineering program has specified these student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- (6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- (7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

The following information has official approval of the **Department of Electrical and Computer Engineering** and **The College of Engineering**

**and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		24
Science		12
Mathematics and Statistics		21
Computer Science		8
Electrical Engineering		15
Computer Engineering		28
Capstone Design Project		7
Computer Engineering Electives		18
Total Hours		133

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		12

## Mathematics and Statistics

Code	Title	Hours
MATH:208	Introduction to Discrete Mathematics	4
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
STAT:401	Probability and Statistics for Engineers	2
Total Hours		21

## Computer Science

Code	Title	Hours
CPSC:209	Computer Science I	4
CPSC:210	Computer Science II	4
Total Hours		8

## Electrical Engineering

Code	Title	Hours
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
ELEN:340	Signals & Systems	4
ELEN:360	Physical Electronics	3
Total Hours		15

## Computer Engineering

Code	Title	Hours
CPEN:101	Tools for Computer Engineering	3
CPEN:220	Digital Logic Design	4
CPEN:320	Computer Systems	3
CPEN:325	Operating Systems Concepts	3
or CPSC:426	Operating Systems	
CPEN:367	VLSI Design	3
CPEN:420	Computer Systems Design	3
CPEN:422	Embedded Systems Interfacing	3
CPEN:427	Computer Networks	3
CPEN:440	Digital Signal Processing	3
Total Hours		28

## Capstone Design Project

Code	Title	Hours
CPEN:309	Design Project Seminar - Computer Engineering	1
CPEN:401	Senior Design Project I - Computer Engineering	3
CPEN:402	Senior Design Project II - Computer Engineering	3
Total Hours		7

## Computer Engineering Electives

Code Title Hours  
**Select 18 credits from the following list, according to departmental Breadth and Depth requirements, and with at least 9 credits from the ELEN or CPEN subject areas:**

CPEN:301	Undergraduate Research I: Computer Engineering	
CPEN:302	Undergraduate Research II: Computer Engineering	
CPEN:303	Undergraduate Research III: Computer Engineering	
CPEN:410	Embedded Scientific Computing	
CPEN:415	System Simulation	
CPEN:462	Analog Integrated Circuit Design	
CPEN:465	Programmable Logic	
CPEN:467	VLSI Circuits & Systems	
CPEN:498	Special Topics: Computer Engineering	
ELEN:341	Introduction to Communication Systems	
ELEN:353	Electromagnetics I	
ELEN:354	Electromagnetics II	
ELEN:361	Electronic Design	
ELEN:371	Control Systems I	
ELEN:381	Energy Conversion	
ELEN:434	Active Circuits	
ELEN:441	Digital Communication	
ELEN:445	Wireless Communications	
ELEN:447	Random Signals	
ELEN:448	Optical Communication Networks	
ELEN:451	Electromagnetic Compatibility	
ELEN:453	Antenna Theory	
ELEN:455	Microwaves	
ELEN:461	Optical Electronics & Photonic Devices	
ELEN:469	Introduction to Sensors and Actuators	
ELEN:472	Control Systems II	
ELEN:481	Modern Power Systems	
ELEN:483	Power Electronics I	
ELEN:485	Electric Motor Drives	
ELEN:486	Dynamics of Electric Machines	
ELEN:487	Electromagnetic Design of Electric Machines	
ELEN:488	Control of Machines	
ELEN:489	Electric and Hybrid Vehicles	
MATH:427	Applied Numerical Methods I	
MATH:428	Applied Numerical Methods II	
CPSC:316	Data Structures	
CPSC:421	Object-Oriented Programming	
CPSC:435	Algorithms	
CPSC:440	Compiler Design	
CPSC:453	Computer Security	



CPSC:457	Computer Graphics	
CPSC:460	Artificial Intelligence & Heuristic Programming	
CPSC:475	Database Management	
CPSC:477	Introduction to Parallel Processing	
Total Hours		18

## Recommended Sequence

Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
CPEN:101	Tools for Computer Engineering	3
Hours		14
<b>Spring Semester</b>		
ENGL:112	English Composition II <sup>1,5</sup>	3
MATH:208	Introduction to Discrete Mathematics	4
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CPEN:220	Digital Logic Design	4
Hours		19
<b>2nd Year</b>		
<b>Fall Semester</b>		
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
CPSC:209	Computer Science I	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
General Education or Honors Distribution <sup>4</sup>		3
Hours		19
<b>Spring Semester</b>		
MATH:335	Introduction to Ordinary Differential Equations	3
CPSC:210	Computer Science II	4
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
CPEN:320	Computer Systems	3
General Education or Honors Distribution <sup>4</sup>		3
Hours		17
<b>Summer Semester</b>		
GNEN:300	Cooperative Education Work Period (possible)	0
Hours		0
<b>3rd Year</b>		
<b>Fall Semester</b>		
ELEN:340	Signals & Systems	4
ELEN:360	Physical Electronics	3
CPEN:325	Operating Systems Concepts	3
or CPSC:426	or Operating Systems	
CPEN:422	Embedded Systems Interfacing	3

General Education or Honors Distribution <sup>4</sup>		3
CPEN:301	Undergraduate Research I: Computer Engineering (Optional)	
Hours		16

### Spring Semester

GNEN:301	Cooperative Education Work Period	0
Hours		0

### Summer Semester

STAT:401	Probability and Statistics for Engineers	2
General Education or Honors Distribution <sup>4</sup>		3
CPEN:302	Undergraduate Research II: Computer Engineering (Optional)	
Hours		5

### 4th Year

#### Fall Semester

GNEN:302	Cooperative Education Work Period	0
Hours		0

#### Spring Semester

CPEN:309	Design Project Seminar - Computer Engineering	1
CPEN:367	VLSI Design	3
CPEN:420	Computer Systems Design	3
CPEN:427	Computer Networks	3
CPEN:440	Digital Signal Processing	3
CPEN:303	Undergraduate Research III: Computer Engineering	
Hours		13

#### Summer Semester

GNEN:403	Cooperative Education Work Period	0
Hours		0

### 5th Year

#### Fall Semester

CPEN:401	Senior Design Project I - Computer Engineering	3
Computer Engineering Elective		3
Computer Engineering Elective		3
Computer Engineering Elective		3
General Education or Honors Distribution <sup>4</sup>		3
Hours		15

#### Spring Semester

CPEN:402	Senior Design Project II - Computer Engineering	3
Computer Engineering Elective		3
Computer Engineering Elective		3
Computer Engineering Elective		3
General Education or Honors Distribution <sup>4</sup>		3
Hours		15
Total Hours		133

- <sup>1</sup> Honors sections may be available; check the schedule of classes.
- <sup>2</sup> The Electrical and Computer Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.
- <sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
- <sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.
- <sup>5</sup> While ENGL:112 English Composition II is preferred, ENGL:222 Technical Report Writing is accepted to fulfill the English composition elective.

**Notes:**

- Up to three credits of undergraduate research in Computer Engineering may be applied to program requirements as Computer Engineering Electives. Students may take at most one credit of undergraduate research in a semester.
- See Electrical and Computer Engineering Departmental Office for Approved Computer Engineering Electives (including Breadth and Depth requirements)

## Electrical and Electronic Engineering Technology, AAS

### Associate of Applied Science in Electrical and Electronic Engineering Technology (286001AAS)

More on the Electrical and Electronic Engineering Technology programs (<https://www.uakron.edu/engineering/ece/undergraduate/electrical-electronic-tech/>)

### Program Information

This program prepares individuals for work as technicians in developing, manufacturing, installing, testing and maintaining electrical and electronic equipment and systems.

### Career Information

The demand by industry for electronic technicians is now and will continue to be great. Electronic technicians find employment in many areas of the electronics field; some of the specific career opportunities include:

- *Computer Technician* - installation, implementation, maintenance of data processing hardware and systems.
- *Engineering Aide* - assists engineers in the design, development, and testing of new electronic equipment.
- *Customer-Service Technician* - installs, operates, and maintains electronic equipment located at the customer's installation. Also provides training for the customer's personnel.

- *Communications Technician* - installs and operates various types of commercial and govt. communications equipment.
- *Plant Technician* - works in electronic manufacturing operations in designing and setting up quality control and other tests for manufactured products. Also may supervise and train electronic production workers

## Cooperative Education

Co-op work experiences are available on an optional basis in this academic program.

## Bachelor Degree Programs

Upon completion of the Associate of Applied Science in Electrical and Electronic Engineering Technology, a student may proceed to the Bachelor of Science in Electrical and Electronic Engineering Technology (p. 539) (286103BS).

The following information has official approval of **The Department of Electrical and Computer Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

## Summary

Code	Title	Hours
Required Courses		35
General Education Courses		12
Math and Physical/Natural Science Courses		14
Total Hours		61

## Required Courses

Code	Title	Hours
EEET:120	Circuit Fundamentals <sup>1</sup>	4
EEET:121	Introduction to Electronics and Computers <sup>1</sup>	2
EEET:122	AC Circuits <sup>2</sup>	4
EEET:123	Electronic Devices <sup>2</sup>	4
EEET:225	Applications of Electronic Devices <sup>1</sup>	4
EEET:237	Digital Circuits <sup>1</sup>	4
EEET:238	Microprocessor Applications <sup>2</sup>	4
EEET:242	Machinery & Controls	3
EEET:251	Electronic Communications <sup>2</sup>	4
EEET:260	Electrical and Electronic Project <sup>2</sup>	2
Total Hours		35

## General Education Courses

Code	Title	Hours
ENGL:111	English Composition I	3
COMM:263	Professional Communications and Presentations <sup>4</sup>	3

PAFS:256	Diversity in American Society <sup>7</sup>	3
SOCIO:243	Contemporary Global Issues <sup>8</sup>	3
Total Hours		12

## Math and Physical/Natural Science Courses

Code	Title	Hours
MATH:153	Technical Mathematics III	2
MATH:154	Technical Mathematics IV	3
MATH:255	Technical Calculus I <sup>3</sup>	3
PHYS:160	Technical Physics: Mechanics <sup>5</sup>	4
PHYS:164	Technical Physics: Heat & Light <sup>5</sup>	2
Total Hours		14

- <sup>1</sup> Traditionally Fall course offering only (See Program Contact).
- <sup>2</sup> Traditionally Spring course offering only (See Program Contact).
- <sup>3</sup> Mathematics, Statistics and Logic Requirement
- <sup>4</sup> Speaking Requirement
- <sup>5</sup> Natural Science Requirement
- <sup>7</sup> Social Science, Domestic Diversity Requirement
- <sup>8</sup> Social Science, Global Diversity Requirement.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I <sup>3</sup>	3
MATH:153	Technical Mathematics III	2
COMM:263	Professional Communications and Presentations <sup>4,9</sup>	3
EEET:120	Circuit Fundamentals (Sch. lab) <sup>1</sup>	4
EEET:121	Introduction to Electronics and Computers (Sch. lab) <sup>1</sup>	2
Hours		14

### Spring Semester

MATH:154	Technical Mathematics IV	3
EEET:122	AC Circuits (Sch. lab) <sup>2</sup>	4
EEET:123	Electronic Devices (Sch. lab) <sup>2</sup>	4
PHYS:160	Technical Physics: Mechanics (Sch. lab) <sup>5</sup>	4
Hours		15

### 2nd Year

#### Fall Semester

MATH:255	Technical Calculus I <sup>6</sup>	3
EEET:225	Applications of Electronic Devices (Sch. lab) <sup>1</sup>	4
EEET:237	Digital Circuits (Sch. lab) <sup>1</sup>	4
EEET:242	Machinery & Controls (Sch. lab)	3
PAFS:256	Diversity in American Society <sup>7,9</sup>	3
Hours		17

#### Spring Semester

EEET:238	Microprocessor Applications (Sch. lab) <sup>2</sup>	4
EEET:251	Electronic Communications (Sch. lab) <sup>2</sup>	4
EEET:260	Electrical and Electronic Project (Sch. lab) <sup>2</sup>	2

PHYS:164	Technical Physics: Heat & Light (Sch. lab) <sup>5</sup>	2
SOCIO:243	Contemporary Global Issues <sup>8,9</sup>	3
Hours		15
Total Hours		61

- <sup>1</sup> Traditionally Fall course offering only (See Program Contact).
- <sup>2</sup> Traditionally Spring course offering only (See Program Contact).
- <sup>3</sup> Writing Requirement
- <sup>4</sup> Speaking Requirement
- <sup>5</sup> Natural Science Requirement
- <sup>6</sup> Mathematics, Statistics and Logic Requirement
- <sup>7</sup> Social Science, Domestic Diversity Requirement
- <sup>8</sup> Social Science, Global Diversity Requirement
- <sup>9</sup> Consult your advisor and appropriate General Education guide for alternate courses.

## Electrical and Electronic Engineering Technology, BS

### Bachelor of Science in Electrical and Electronic Engineering Technology (286103BS)

More on the Electrical and Electronic Engineering Technology programs (<https://www.uakron.edu/engineering/ece/undergraduate/electrical-electronic-tech/>)

## Program Information

Graduates of the Electrical and Electronic Engineering Technology program will work with engineers in developing, manufacturing, testing and servicing Electrical/Electronic components, equipment and systems.

This degree program is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org> (<http://www.abet.org/>).

## Program Educational Objectives

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's constituencies (i.e., students, alumni, employers of our students, and faculty of the program).

The Bachelor of Science in **Electrical and Electronic Engineering Technology (EEET)** program at the University of Akron has as its primary educational objective to produce technically capable graduates who within five years of graduation, will demonstrate:

- the fundamental knowledge and problem-solving skills to be productive as individual and team contributors in an electrical/electronic engineering technology career field.
- a commitment to accountability, attention to detail, and reliability.
- written and verbal communication skills developed in a broad-based university education.

## Student Outcomes

Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program, including:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes;
5. an ability to function effectively as a member as well as a leader on technical teams.

## Cooperative Education

Co-op work experiences are available on an optional basis in this academic program.

The following information has official approval of **The Department of Electrical and Computer Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements

### Summary

Code	Title	Hours
General Education Requirements (p. 31)		
Required Courses		54
Program Specific General Education Courses		27
Computer Programming Electives		2
Electrical and Electronic Engineering Technology Electives		12
Math and Physical/Natural Science Courses		22
Technical Electives		3
Total Hours		120

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

<b>Academic Foundations</b>	<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
MATH:255	Technical Calculus I
PHIL:170	Introduction to Logic
<i>Speaking: 3 credit hours</i>	
COMM:263	Professional Communications and Presentations
<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
HIST:200	Empires of the Ancient World
MUSIC:201	Exploring Music: Bach to Rock
<i>Natural Sciences: 7 credit hours</i>	
PHYS:160	Technical Physics: Mechanics
PHYS:164	Technical Physics: Heat & Light
<i>Social Sciences: 6 credit hours</i>	
PAFS:256	Diversity in American Society
SOCIO:243	Contemporary Global Issues
<b>Diversity</b>	
Domestic Diversity	
PAFS:256	Diversity in American Society
Global Diversity	
SOCIO:243	Contemporary Global Issues
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
PHIL:241	Technology & Human Values
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## Required Courses

Code	Title	Hours
EEET:120	Circuit Fundamentals <sup>1</sup>	4
EEET:121	Introduction to Electronics and Computers <sup>1</sup>	2
EEET:122	AC Circuits <sup>2</sup>	4
EEET:123	Electronic Devices <sup>2</sup>	4
EEET:225	Applications of Electronic Devices <sup>1</sup>	4
EEET:237	Digital Circuits <sup>1</sup>	4
EEET:238	Microprocessor Applications <sup>2</sup>	4
EEET:242	Machinery & Controls	3
EEET:251	Electronic Communications <sup>2</sup>	4
EEET:260	Electrical and Electronic Project <sup>2</sup>	2
EEET:350	Advanced Circuit Theory <sup>1</sup>	3
EEET:352	Microcontrollers <sup>2</sup>	4
EEET:354	Advanced Circuits Applications <sup>2</sup>	3
EEET:453	Control Systems <sup>1</sup>	4
EEET:455	Senior Project <sup>2</sup>	2

MCET:405	Introduction to Industrial Machine Control	3
Total Hours		54

## Major Specific General Education Courses

Code	Title	Hours
ENGL:111	English Composition I <sup>6</sup>	3
ENGL:222	Technical Report Writing <sup>6</sup>	3
COMM:263	Professional Communications and Presentations 10,15	3
PAFS:256	Diversity in American Society <sup>9,15</sup>	3
HIST:200	Empires of the Ancient World <sup>11,15</sup>	3
PHIL:170	Introduction to Logic <sup>11,15</sup>	3
PHIL:241	Technology & Human Values <sup>7,15</sup>	3
SOCIO:243	Contemporary Global Issues <sup>8,15</sup>	3
MUSIC:201	Exploring Music: Bach to Rock <sup>12,15</sup>	3
Total Hours		27

## Computer Programming Electives

Code	Title	Hours
<b>Complete two credits:</b>		<b>2</b>
MCET:312	Programming for Technologists	
CPSC:126	Introduction to Visual Basic Programming	
CPSC:209	Computer Science I	
CPEN:208	Programming for Engineers	
Total Hours		2

## Electrical and Electronic Engineering Technology Electives

Code	Title	Hours
<b>Complete 12 credits:</b>		<b>12</b>
EEET:290	Special Topics: Electronic Engineering Technology	
EEET:310	National Electrical Code and Electrical System Design	
EEET:360	Virtual Instrumentation and Data Acquisition	
EEET:400	Computer Simulations in Technology	
EEET:406	Communication Systems	
EEET:420	Biomedical Electronic Instrumentation	
EEET:451	Industrial Electrical Systems	
EEET:490	Special Topics: Electronic Engineering Technology	
EEET:497	Senior Honors Project: Electronic Technology	
Total Hours		12

## Math and Physical/Natural Science Courses

Code	Title	Hours
MATH:153	Technical Mathematics III	2
MATH:154	Technical Mathematics IV	3
MATH:255	Technical Calculus I <sup>13</sup>	3
MATH:345	Technical Data Analysis	2
MATH:356	Technical Calculus II	3
PHYS:160	Technical Physics: Mechanics <sup>14</sup>	4

PHYS:164	Technical Physics: Heat & Light <sup>14</sup>	2
Natural Science Requirement <sup>14</sup>		3
Total Hours		22

## Technical Electives

Code	Title	Hours
<b>Complete three credits:</b>		<b>3</b>
MATH:290	Special Topics: Associate Studies Mathematics	
MATH:361	Applied Cryptography	
MATH:461	Applied Cryptanalysis	
MATH:360	Advanced Mathematics for Surveyors	
AMET:332	Management of Technology Based Operations	
AMET:348	CNC Programming I	
AMET:448	CNC Programming II	
AMET:470	Simulation of Manufacturing Systems	
AMET:480	Automated Production	
AMET:110	Manufacturing Processes	
AMET:140	Computer Aided Drawing	
AMET:201	Robotics & Automated Manufacturing	
AMET:211	Manufacturing Operations	
MCET:101	Introduction to Mechanical Design	
MCET:121	Fundamentals of Engineering Drawing	
MCET:142	Introduction to Material Technology	
MCET:249	Applied Thermal Energy I	
MCET:252	Thermo-Fluids Laboratory	
MCET:310	Economics of Technology	
SURV:100	Introduction to Geomatics	
SURV:101	Basic Surveying	
SURV:105	Introduction to Geographic & Land Information Systems	
COET:125	Statics	
COET:150	Plan Reading	
COET:245	Construction Estimating	
COET:371	Green & Sustainable Building Practices	3
COET:453	Legal Aspects of Construction	
COET:462	Mechanical Service Systems	
COET:463	Electrical Service Systems	
COET:469	Contracts and Specifications	
BIOL:200	Human Anatomy & Physiology I	
CPSC:306	Assembly and System Programming	
Total Hours		6

<sup>1</sup> Traditionally Fall only (See Program Contact)

<sup>2</sup> Traditionally Spring only (See Program Contact)

<sup>4</sup> Electrical and Electronic Engineering Technology Electives. Please note that each of the following Electrical and Electronic Engineering Technology Electives classes may be offered only once during the year, including the summer session. Consult with the Schedule of Classes Bulletin for exact scheduling of classes.

<sup>6</sup> Writing Requirement

<sup>7</sup> Complex Issues Requirement

<sup>8</sup> Global Diversity Requirement

<sup>9</sup> Domestic Diversity Requirement

- <sup>10</sup> Speaking Requirement  
<sup>11</sup> Humanities Requirement  
<sup>12</sup> Arts Requirement  
<sup>13</sup> Mathematics, Statistics and Logic Requirement  
<sup>14</sup> Natural Science Requirement  
<sup>15</sup> Consult your advisor and appropriate General Education guide for alternate courses.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I <sup>6</sup>	3
MATH:153	Technical Mathematics III	2
COMM:263	Professional Communications and Presentations <sup>10,15</sup>	3
EEET:120	Circuit Fundamentals (Sch. lab) <sup>1</sup>	4
EEET:121	Introduction to Electronics and Computers (Sch. lab) <sup>1</sup>	2
Hours		14

### Spring Semester

MATH:154	Technical Mathematics IV	3
EEET:122	AC Circuits (Sch. lab) <sup>2</sup>	4
EEET:123	Electronic Devices (Sch. lab) <sup>2</sup>	4
PHYS:160	Technical Physics: Mechanics (Sch. lab) <sup>14</sup>	4
Hours		15

### 2nd Year

#### Fall Semester

MATH:255	Technical Calculus I <sup>13</sup>	3
EEET:225	Applications of Electronic Devices <sup>1</sup>	4
EEET:237	Digital Circuits (Sch. lab) <sup>1</sup>	4
EEET:242	Machinery & Controls (Sch. lab)	3
PAFS:256	Diversity in American Society <sup>9,15</sup>	3
Hours		17

#### Spring Semester

EEET:238	Microprocessor Applications (Sch. lab) <sup>2</sup>	4
EEET:251	Electronic Communications (Sch. lab) <sup>2</sup>	4
EEET:260	Electrical and Electronic Project (Sch. lab) <sup>2</sup>	2
PHYS:164	Technical Physics: Heat & Light (Sch. lab)	2
SOCIO:243	Contemporary Global Issues <sup>8,15</sup>	3
Hours		15

### 3rd Year

#### Fall Semester

MATH:356	Technical Calculus II	3
EEET:350	Advanced Circuit Theory <sup>1</sup>	3
ENGL:222	Technical Report Writing	3
	Computer Programming Elective <sup>3</sup>	2
	Electrical and Electronic Engineering Technology Elective <sup>4</sup>	3
Hours		14

#### Spring Semester

MATH:345	Technical Data Analysis	2
MCET:405	Introduction to Industrial Machine Control (Sch. lab)	3

EEET:352	Microcontrollers (Sch. lab) <sup>2</sup>	4
EEET:354	Advanced Circuits Applications <sup>2</sup>	3
PHIL:170	Introduction to Logic <sup>11,15</sup>	3
Hours		15

### 4th Year

#### Fall Semester

EEET:453	Control Systems (Sch. lab) <sup>1</sup>	4
PHIL:241	Technology & Human Values <sup>7,15</sup>	3
MUSIC:201	Exploring Music: Bach to Rock <sup>12,15</sup>	3
	Electrical and Electronic Engineering Technology Elective <sup>4</sup>	3
Natural Science Requirement <sup>14,15</sup>		3
Hours		16

#### Spring Semester

EEET:455	Senior Project <sup>2</sup>	2
HIST:200	Empires of the Ancient World <sup>11,15</sup>	3
	Technical Elective <sup>5</sup>	3
	Electrical and Electronic Engineering Technology Electives <sup>5</sup>	6
Hours		14
Total Hours		120

- <sup>1</sup> Traditionally Fall only. (See Program Contact).  
<sup>2</sup> Traditionally Spring only (See Program Contact).  
<sup>3</sup> Computer Programming Electives.  
<sup>4</sup> Electrical and Electronic Engineering Technology Electives. Please note that each of the Electrical and Electronic Engineering Technology Electives classes may be offered only once during the year, including the summer session. Consult with the Schedule of Classes Bulletin for exact scheduling of classes.  
<sup>5</sup> Technical Electives. Technical Electives are technical courses that support a student's career interest and may include any of the approved Electrical and Electronic Engineering Technology Electives. Some courses may involve prerequisites. Any course taken that is not on the Technical Electives or Electrical and Electronic Engineering Technology Electives must be approved by the Program Director in writing in order to be considered a technical elective. Choose a minimum of three (3) credit hours of Technical Electives.  
<sup>6</sup> Writing Requirement.  
<sup>7</sup> Complex Issues Requirement.  
<sup>8</sup> Global Diversity Requirement.  
<sup>9</sup> Domestic Diversity Requirement.  
<sup>10</sup> Speaking Requirement.  
<sup>11</sup> Humanities Requirement.  
<sup>12</sup> Arts Requirement.  
<sup>13</sup> Mathematics, Statistics, and Logic Requirement.  
<sup>14</sup> Natural Science Requirement.  
<sup>15</sup> Consult your advisor and appropriate General Education guide for alternate courses.

# Electrical Engineering, BS

## Bachelor of Science in Electrical Engineering without Co-op (440000BS)

Every aspect of modern life is influenced by electrical engineers. They design and develop systems ranging from massive power grids and global communications networks to tiny integrated circuits inside computers and personal electronics. Branches of electrical engineering include communications, controls, electromagnetics, electronics, and power systems. Important applications include power generation and distribution, sustainable energy systems, manufacturing automation, aerospace systems, robotics, sensors and instrumentation, imaging systems, and many others.

The Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org>). Our comprehensive curriculum prepares students to identify, formulate, and implement solutions to real-world problems. Students learn how to use modern engineering tools in well-equipped laboratories, with activities that reinforce the concepts learned in the classroom. The curriculum emphasizes design and teamwork, and culminates in a capstone senior design project that integrates the material learned in earlier courses.

The program educational objectives (PEOs) for the Electrical Engineering program are that, within a few years after graduation, our Electrical Engineering graduates:

- achieve competitively compensated electrical engineering positions or related professional positions, or entry into programs of advanced study
- prove to be highly competent and productive in electrical engineering or related practice
- continue to develop professionally through both practical experience and a lifelong commitment to learning
- exhibit high standards of ethical conduct, societal responsibility, and professionalism in engineering

The Electrical Engineering program has specified these student outcomes to be achieved by the time of graduation:

- (1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- (2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- (3) an ability to communicate effectively with a range of audiences
- (4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- (5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

The Bachelor of Science in Electrical Engineering can be combined with the "Cooperative Education, College of Engineering and Polymer Science" certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Electrical Engineering can be earned without the certificate, with a nominal four-year plan of study.

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major.

Students must show success in key classes early in the program curriculum before they gain approval to take classes in the third year of the curriculum and beyond.

The following information has official approval of the **Department of Electrical and Computer Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		24
	Natural Science	12
	Mathematics and Statistics	17
	General Engineering	8
	Computer Engineering	10
	Electrical Engineering	37
	Capstone Design Project	7
	Electrical Engineering Electives	18
Total Hours		133

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## General Education

Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
Total Hours		12

## Mathematics and Statistics

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
STAT:401	Probability and Statistics for Engineers	2-4
or STAT:461	Applied Statistics	
Total Hours		17-19

## General Engineering

Code	Title	Hours
CIVE:201	Statics	3
CIVE:202	Introduction to Mechanics of Solids	3

or MECE:203	Dynamics	
CHEE:305	Materials Science	2
or MECE:305	Thermal Science	
Total Hours		8

## Computer Engineering

Code	Title	Hours
CPEN:208	Programming for Engineers	3
CPEN:210	Computational Problem Solving	3
CPEN:221	Digital Logic Design	3
CPEN:222	Digital Logic Design Laboratory	1
Total Hours		10

## Electrical Engineering

Code	Title	Hours
ELEN:101	Tools for Electrical Engineering	3
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
ELEN:340	Signals & Systems	4
ELEN:341	Introduction to Communication Systems	3
ELEN:350	Engineering Electromagnetics	4
ELEN:360	Physical Electronics	3
ELEN:361	Electronic Design	4
ELEN:371	Control Systems I	4
ELEN:381	Energy Conversion	4
Total Hours		37

## Capstone Design Project

Code	Title	Hours
ELEN:309	Design Project Seminar - Electrical Engineering	1
ELEN:401	Senior Design Project I - Electrical Engineering	3
ELEN:402	Senior Design Project II - Electrical Engineering	3
Total Hours		7

## Electrical Engineering Electives

Code	Title	Hours
<b>Select 18 credits from the following list, according to departmental Breadth and Depth requirements:</b>		
ELEN:301	Undergraduate Research I: Electrical Engineering	
ELEN:302	Undergraduate Research II: Electrical Engineering	
ELEN:303	Undergraduate Research III: Electrical Engineering	
ELEN:434	Active Circuits	
ELEN:441	Digital Communication	
ELEN:445	Wireless Communications	
ELEN:447	Random Signals	
ELEN:448	Optical Communication Networks	
ELEN:451	Electromagnetic Compatibility	
ELEN:453	Antenna Theory	
ELEN:455	Microwaves	



ELEN:461	Optical Electronics & Photonic Devices	
ELEN:469	Introduction to Sensors and Actuators	
ELEN:472	Control Systems II	
ELEN:481	Modern Power Systems	
ELEN:483	Power Electronics I	
ELEN:485	Electric Motor Drives	
ELEN:486	Dynamics of Electric Machines	
ELEN:487	Electromagnetic Design of Electric Machines	
ELEN:488	Control of Machines	
ELEN:489	Electric and Hybrid Vehicles	
ELEN:498	Special Topics: Electrical Engineering	
CPEN:320	Computer Systems	
CPEN:325	Operating Systems Concepts	
CPEN:367	VLSI Design	
CPEN:410	Embedded Scientific Computing	
CPEN:415	System Simulation	
CPEN:420	Computer Systems Design	
CPEN:422	Embedded Systems Interfacing	
CPEN:427	Computer Networks	
CPEN:440	Digital Signal Processing	
CPEN:462	Analog Integrated Circuit Design	
CPEN:465	Programmable Logic	
CPEN:467	VLSI Circuits & Systems	
Total Hours		18

## Recommended Sequence with Cooperative Education

This plan of study shows the recommended schedule for students who are also earning the "Cooperative Education, College of Engineering and Polymer Science" certificate. Together, the Bachelor of Science and certificate require a five-year plan of study. The program recommends that students earn this certificate.

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
ELEN:101	Tools for Electrical Engineering	3
Hours		14

### Spring Semester

ENGL:112	English Composition II <sup>1,2</sup>	3
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CPEN:221	Digital Logic Design	3
CPEN:222	Digital Logic Design Laboratory	1
General Education or Honors Distribution <sup>3</sup>		3
Hours		18

### 2nd Year

Fall Semester		
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4

ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
CPEN:208	Programming for Engineers	3
General Education or Honors Distribution <sup>3</sup>		3
Hours		18

### Spring Semester

MATH:335	Introduction to Ordinary Differential Equations	3
CIVE:201	Statics <sup>1</sup>	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
CPEN:210	Computational Problem Solving	3
General Education or Honors Distribution <sup>3</sup>		3
Hours		16

### Summer Semester

GGEN:300	Cooperative Education Work Period (possible)	0
Hours		0

### 3rd Year

#### Fall Semester

CIVE:202	Introduction to Mechanics of Solids or MECE:203 or Dynamics	3
ELEN:340	Signals & Systems	4
ELEN:350	Engineering Electromagnetics	4
ELEN:360	Physical Electronics	3
ELEN:381	Energy Conversion	4
ELEN:301	Undergraduate Research I: Electrical Engineering (optional) <sup>5</sup>	
Hours		18

#### Spring Semester

GGEN:301	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

#### Summer Semester

STAT:401	Probability and Statistics for Engineers	2
MECE:305	Thermal Science	2
ELEN:302	Undergraduate Research II: Electrical Engineering (optional) <sup>5</sup>	
Hours		4

### 4th Year

#### Fall Semester

GGEN:302	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0

#### Spring Semester

ELEN:309	Design Project Seminar - Electrical Engineering	1
ELEN:341	Introduction to Communication Systems	3
ELEN:361	Electronic Design	4
ELEN:371	Control Systems I	4
ELEN:303	Undergraduate Research III: Electrical Engineering (optional) <sup>5</sup>	

General Education or Honors Distribution <sup>3</sup>		3
Hours		15
<b>Summer Semester</b>		
GREN:403	Cooperative Education Work Period <sup>(for Cooperative Education certificate)</sup>	0
Hours		0
<b>5th Year</b>		
<b>Fall Semester</b>		
ELEN:401	Senior Design Project I - Electrical Engineering	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
General Education or Honors Distribution <sup>3</sup>		3
Hours		15
<b>Spring Semester</b>		
ELEN:402	Senior Design Project II - Electrical Engineering	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
General Education or Honors Distribution <sup>3</sup>		3
Hours		15
Total Hours		133

<sup>1</sup> Honors sections may be available; honors students should check the schedule of classes.

<sup>2</sup> Check General Education Program or Honors Distribution to find courses that satisfy the Writing Second Course requirement. While ENGL:112 is preferred, ENGL:222 Technical Report Writing is accepted to fulfill the Writing Second Course requirement.

<sup>3</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

<sup>4</sup> Electrical Engineering Electives must be chosen to meet Breadth and Depth requirements. See Electrical and Computer Engineering Departmental Office for Approved Electrical Engineering Electives (including Breadth and Depth requirements).

<sup>5</sup> Up to three credits of undergraduate research in Electrical Engineering may be applied to program requirements as Electrical Engineering Electives. Students may take at most one credit of undergraduate research in a semester.

## Recommended Sequence without Cooperative Education

If a student chooses not to earn the Cooperative Education certificate, the following four-year plan of study is used.

<b>1st Year</b>		
<b>Fall Semester</b>		
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
ELEN:101	Tools for Electrical Engineering	3
Hours		14
<b>Spring Semester</b>		
ENGL:112	English Composition II <sup>1,2</sup>	3
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CPEN:221	Digital Logic Design	3
CPEN:222	Digital Logic Design Laboratory	1
General Education or Honors Distribution <sup>3</sup>		3
Hours		18
<b>2nd Year</b>		
<b>Fall Semester</b>		
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
CPEN:208	Programming for Engineers	3
General Education or Honors Distribution <sup>3</sup>		3
Hours		18
<b>Spring Semester</b>		
MATH:335	Introduction to Ordinary Differential Equations	3
CIVE:201	Statics <sup>1</sup>	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
CPEN:210	Computational Problem Solving	3
General Education or Honors Distribution <sup>3</sup>		3
Hours		16
<b>3rd Year</b>		
<b>Fall Semester</b>		
CIVE:202	Introduction to Mechanics of Solids	3
or MECE:203	or Dynamics	
ELEN:340	Signals & Systems	4
ELEN:350	Engineering Electromagnetics	4
ELEN:360	Physical Electronics	3
ELEN:381	Energy Conversion	4
ELEN:301	Undergraduate Research I: Electrical Engineering (optional) <sup>5</sup>	
Hours		18
<b>Spring Semester</b>		
ELEN:309	Design Project Seminar - Electrical Engineering	1
ELEN:341	Introduction to Communication Systems	3
ELEN:361	Electronic Design	4
ELEN:371	Control Systems I	4
General Education or Honors Distribution <sup>3</sup>		3

ELEN:302	Undergraduate Research II: Electrical Engineering (optional) <sup>5</sup>	
	Hours	15
<b>Summer Semester</b>		
STAT:401	Probability and Statistics for Engineers	2
MECE:305	Thermal Science	2
ELEN:303	Undergraduate Research III: Electrical Engineering (optional) <sup>5</sup>	
	Hours	4
<b>4th Year</b>		
<b>Fall Semester</b>		
ELEN:401	Senior Design Project I - Electrical Engineering	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	Hours	15
<b>Spring Semester</b>		
ELEN:402	Senior Design Project II - Electrical Engineering	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
	Electrical Engineering Elective <sup>4</sup>	3
	General Education or Honors Distribution <sup>3</sup>	3
	Hours	15
	Total Hours	133

<sup>1</sup> Honors sections may be available; honors students should check the schedule of classes.

<sup>2</sup> Check General Education Program or Honors Distribution to find courses that satisfy the Writing Second Course requirement. While ENGL:112 is preferred, ENGL:222 Technical Report Writing is accepted to fulfill the Writing Second Course requirement.

<sup>3</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

<sup>4</sup> Electrical Engineering Electives must be chosen to meet Breadth and Depth requirements. See Electrical and Computer Engineering Departmental Office for Approved Electrical Engineering Electives (including Breadth and Depth requirements).

<sup>5</sup> Up to three credits of undergraduate research in Electrical Engineering may be applied to program requirements as Electrical Engineering Electives. Students may take at most one credit of undergraduate research in a semester.

## Electrical Engineering, Co-op Option, BS

### Bachelor of Science in Electrical Engineering with Co-op (440005BS)

This option of the undergraduate program in Electrical Engineering includes a cooperative education component.

Every aspect of modern life is influenced by electrical engineers. They design and develop systems ranging from massive power grids and global communications networks to tiny integrated circuits inside computers and personal electronics. Branches of electrical engineering include communications, controls, electromagnetics, electronics, and power systems. Important applications include power generation and distribution, sustainable energy systems, manufacturing automation, aerospace systems, robotics, sensors and instrumentation, imaging systems, and many others.

The Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org>). Our comprehensive curriculum prepares students to identify, formulate, and implement solutions to real-world problems. Students learn how to use modern engineering tools in well-equipped laboratories, with activities that reinforce the concepts learned in the classroom. The curriculum emphasizes design and teamwork, and culminates in a capstone senior design project that integrates the material learned in earlier courses. The Electrical Engineering program offers two options, with and without a co-operative education component; our well-established co-op program enables students to strengthen the connections between theory and practice in a professional setting, and provides valuable industrial experience.

The program educational objectives (PEOs) for the Electrical Engineering program are that, within a few years after graduation, our Electrical Engineering graduates:

- achieve competitively compensated electrical engineering positions or related professional positions, or entry into programs of advanced study
- prove to be highly competent and productive in electrical engineering or related practice
- continue to develop professionally through both practical experience and a lifelong commitment to learning
- exhibit high standards of ethical conduct, societal responsibility, and professionalism in engineering

The Electrical Engineering program has specified these student outcomes to be achieved by the time of graduation:

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

(3) an ability to communicate effectively with a range of audiences

(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

The following information has official approval of the **Department of Electrical and Computer Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	24
	Science	12
	Mathematics and Statistics	17
	General Engineering	8
	Computer Engineering	7
	Electrical Engineering	40
	Capstone Design Project	7
	Electrical Engineering Electives	18
	<b>Total Hours</b>	<b>133</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
	Complex Issues Facing Society	
	Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Natural Science

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
<b>Total Hours</b>		<b>12</b>

## Mathematics and Statistics

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
STAT:401	Probability and Statistics for Engineers	2
<b>Total Hours</b>		<b>17</b>

## General Engineering

Code	Title	Hours
CIVE:201	Statics	3
CIVE:202	Introduction to Mechanics of Solids	3
or MECE:203	Dynamics	
CHEE:305	Materials Science	2
or MECE:305	Thermal Science	
<b>Total Hours</b>		<b>8</b>

## Computer Engineering

Code	Title	Hours
CPEN:208	Programming for Engineers	3
CPEN:210	Computational Problem Solving	3
Total Hours		6

## Electrical Engineering

Code	Title	Hours
ELEN:101	Tools for Electrical Engineering	3
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
ELEN:340	Signals & Systems	4
ELEN:341	Introduction to Communication Systems	3
ELEN:353	Electromagnetics I	4
ELEN:354	Electromagnetics II	3
ELEN:360	Physical Electronics	3
ELEN:361	Electronic Design	4
ELEN:371	Control Systems I	4
ELEN:381	Energy Conversion	4
Total Hours		40

## Capstone Design Project

Code	Title	Hours
ELEN:309	Design Project Seminar - Electrical Engineering	1
ELEN:401	Senior Design Project I - Electrical Engineering	3
ELEN:402	Senior Design Project II - Electrical Engineering	3
Total Hours		7

## Electrical Engineering Electives

Code	Title	Hours
<b>Select 18 credits from the following list, according to departmental Breadth and Depth requirements:</b>		
ELEN:301	Undergraduate Research I: Electrical Engineering	
ELEN:302	Undergraduate Research II: Electrical Engineering	
ELEN:303	Undergraduate Research III: Electrical Engineering	
ELEN:434	Active Circuits	
ELEN:441	Digital Communication	
ELEN:445	Wireless Communications	
ELEN:447	Random Signals	
ELEN:448	Optical Communication Networks	
ELEN:451	Electromagnetic Compatibility	
ELEN:453	Antenna Theory	
ELEN:455	Microwaves	
ELEN:461	Optical Electronics & Photonic Devices	
ELEN:469	Introduction to Sensors and Actuators	
ELEN:472	Control Systems II	
ELEN:481	Modern Power Systems	
ELEN:483	Power Electronics I	
ELEN:485	Electric Motor Drives	

ELEN:486	Dynamics of Electric Machines	
ELEN:487	Electromagnetic Design of Electric Machines	
ELEN:488	Control of Machines	
ELEN:489	Electric and Hybrid Vehicles	
ELEN:498	Special Topics: Electrical Engineering	
CPEN:320	Computer Systems	
CPEN:325	Operating Systems Concepts	
CPEN:367	VLSI Design	
CPEN:410	Embedded Scientific Computing	
CPEN:415	System Simulation	
CPEN:420	Computer Systems Design	
CPEN:422	Embedded Systems Interfacing	
CPEN:427	Computer Networks	
CPEN:440	Digital Signal Processing	
CPEN:462	Analog Integrated Circuit Design	
CPEN:465	Programmable Logic	
CPEN:467	VLSI Circuits & Systems	
Total Hours		18

## Recommended Sequence

Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
ELEN:101	Tools for Electrical Engineering	3
		Hours
		14
<b>Spring Semester</b>		
ENGL:112	English Composition II <sup>1,5</sup>	3
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CPEN:220	Digital Logic Design	4
		General Education or Honors Distribution <sup>4</sup>
		3
		Hours
		18
<b>2nd Year</b>		
<b>Fall Semester</b>		
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
ELEN:230	Circuits I Laboratory	1
ELEN:231	Circuits I	3
		General Education or Honors Distribution <sup>4</sup>
		3
		General Education or Honors Distribution <sup>4</sup>
		3
		Hours
		18
<b>Spring Semester</b>		
MATH:335	Introduction to Ordinary Differential Equations	3
CIVE:201	Statics <sup>1</sup>	3
ELEN:330	Circuits II Laboratory	1
ELEN:332	Circuits II	3
CPEN:208	Programming for Engineers	3

General Education or Honors Distribution <sup>4</sup>		3
Hours		16
<b>Summer Semester</b>		
GNEN:300	Cooperative Education Work Period (possible)	0
Hours		0
<b>3rd Year</b>		
<b>Fall Semester</b>		
CIVE:202 or MECE:203	Introduction to Mechanics of Solids or Dynamics	3
ELEN:340	Signals & Systems	4
ELEN:353	Electromagnetics I	4
ELEN:360	Physical Electronics	3
ELEN:381	Energy Conversion	4
ELEN:301	Undergraduate Research I: Electrical Engineering (optional)	
Hours		18
<b>Spring Semester</b>		
GNEN:301	Cooperative Education Work Period	0
Hours		0
<b>Summer Semester</b>		
STAT:401	Probability and Statistics for Engineers	2
MECE:305 or CHEE:305	Thermal Science or Materials Science	2
ELEN:302	Undergraduate Research II: Electrical Engineering (optional)	
Hours		4
<b>4th Year</b>		
<b>Fall Semester</b>		
GNEN:302	Cooperative Education Work Period	0
Hours		0
<b>Spring Semester</b>		
ELEN:309	Design Project Seminar - Electrical Engineering	1
ELEN:341	Introduction to Communication Systems	3
ELEN:361	Electronic Design	4
ELEN:371	Control Systems I	4
General Education or Honors Distribution <sup>4</sup>		3
ELEN:303	Undergraduate Research III: Electrical Engineering (optional)	
Hours		15
<b>Summer Semester</b>		
GNEN:403	Cooperative Education Work Period	0
Hours		0
<b>5th Year</b>		
<b>Fall Semester</b>		
ELEN:401	Senior Design Project I - Electrical Engineering	3
Electrical Engineering Elective		3
Electrical Engineering Elective		3
Electrical Engineering Elective		3
General Education or Honors Distribution <sup>4</sup>		3
Hours		15

**Spring Semester**

ELEN:402	Senior Design Project II - Electrical Engineering	3
Electrical Engineering Elective		3
Electrical Engineering Elective		3
Electrical Engineering Elective		3
General Education or Honors Distribution <sup>4</sup>		3
Hours		15
Total Hours		133

- <sup>1</sup> Honors sections may be available; check the schedule of classes.
- <sup>2</sup> The Electrical and Computer Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.
- <sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
- <sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.
- <sup>5</sup> While ENGL:112 English Composition II is preferred, ENGL:222 Technical Report Writing is accepted to fulfill the English composition elective.

**Notes:**

- Up to three credits of undergraduate research in Electrical Engineering may be applied to program requirements as Electrical Engineering Electives. Students may take at most one credit of undergraduate research in a semester.
- See Electrical and Computer Engineering Departmental Office for Approved Electrical Engineering Electives (including Breadth and Depth requirements)

## Mechanical Engineering

The Department of Mechanical Engineering (<https://www.uakron.edu/engineering/ME/>) offers programs leading to the Bachelor of Science in Mechanical Engineering and the Bachelor of Science in Aerospace Systems Engineering. The department also offers programs leading to the Associate of Applied Science and the Bachelor of Science in Mechanical Engineering Technology, the Associate of Applied Science in Advanced Manufacturing Engineering Technology, and the Bachelor of Science in Automated Manufacturing Engineering Technology, as well as a certificate in Drafting and Computer Drafting. The Department offers graduate programs leading to a Master of Science in Mechanical Engineering, and an interdisciplinary Doctor of Philosophy in Engineering.

Information specific to the available program options in mechanical engineering and aerospace systems engineering is available:

- Advanced Manufacturing Engineering Technology, AAS (p. 556)
- Aerospace Systems Engineering, BS (p. 558)
- Automated Manufacturing Engineering Technology, BS (p. 561)
- Drafting and Computer Drafting, Certificate (p. 563)

- Mechanical Engineering Technology, AAS (p. 564)
- Mechanical Engineering Technology, BS (p. 565)
- Mechanical Engineering, BS (p. 568)
- Mechanical Engineering, Co-op Option, BS (p. 572)

## Automated Manufacturing Engineering Technology (AMET)

### AMET:100 Basic Principles of Manufacturing Management (4 Credits)

A survey of basic concepts of management and their interrelationships to a manufacturing environment. Includes production control, quality control, work measurement, and employee motivation. (Formerly 2880:100)

### AMET:101 Introduction to Advanced Manufacturing (2 Credits)

This course defines advanced manufacturing and provides students with an overview of the knowledge, skills, and abilities necessary to succeed in an advanced manufacturing career. (Formerly 2880:101)

### AMET:110 Manufacturing Processes (3 Credits)

Study of the machines, methods, and processes used in manufacturing. (Formerly 2880:110)

### AMET:130 Work Measurement & Cost Estimating (3 Credits)

Prerequisite: MATH 152. Time and motion study. Development of accurate work methods and production standards, and their relationship to manufacturing cost estimates. (Formerly 2880:130)

### AMET:140 Computer Aided Drawing (3 Credits)

Drafting procedures and techniques used for creating drawings using AutoCAD software. Topics include basic components, drawing, editing, dimensioning, layers, text, blocks, plotting, and hatch. (Formerly 2880:140)

### AMET:151 Industrial Safety & Environmental Protection (2 Credits)

A contemporary overview of the science and management of occupational health and safety programs, policies, and procedures in an industrial and business type environment. (Formerly 2880:151)

### AMET:201 Robotics & Automated Manufacturing (3 Credits)

Prerequisite: AMET 101. Study of manufacturing automation and the computer-based products and processes available for this task. Robots, machine controllers, and machine/process interfaces are investigated. (Formerly 2880:201)

### AMET:211 Manufacturing Operations (3 Credits)

A study of all functions involved in a manufacturing production system. Areas covered include product design, forecasting, capacity planning, scheduling, materials management, and project management. (Formerly 2880:211)

### AMET:225 Computer Aided Tool Design (3 Credits)

Prerequisite: AMET 140 or MCET 121. The study of standard tool design practices and procedures utilizing industry-standard computer-aided design software. (Formerly 2880:225)

### AMET:230 3-D Modeling & Design (3 Credits)

Prerequisite: AMET 140 or MCET 121. This course covers advanced topics in the use of AutoCAD. These topics include 3-D modeling. Laboratory. (Formerly 2880:230)

### AMET:232 Labor Management Relations (3 Credits)

Prerequisite: AMET 100. Study of historical background of labor movement, management viewpoints, legal framework for modern labor organizations and collective bargaining process. (Formerly 2880:232)

### AMET:241 Introduction to Quality Assurance (3 Credits)

Prerequisite: MATH 152. Theory and practice of inspection and sampling techniques for measurement of quality, QC charts, sampling plans, mill specs, checking machine capabilities, and setting tolerances. (Formerly 2880:241)

### AMET:248 Introduction to CNC and Additive Manufacturing (3 Credits)

Prerequisites: MATH 153 and [AMET 140 or MCET 121] or permission. This course provides an overview of CNC manual programming utilizing the G-code programming language along with an introduction to additive manufacturing processes. (Formerly 2880:248)

### AMET:290 Special Topics: Industrial Technology (1-2 Credits)

Prerequisite: Permission. Selected topics or subject areas of interest in industrial technology. (May be repeated for a total of four credits) (Formerly 2880:290)

### AMET:301 Computer Control of Automated Systems (3 Credits)

The development of computer based systems and computer programs using robotics and machine controllers as the solutions for automated manufacturing problems. (Formerly 2870:301)

### AMET:311 Facilities Planning (3 Credits)

Prerequisite: AMET 140 or permission. An application based study of facilities analysis, design and layout utilizing software based solutions. (Formerly 2870:311)

### AMET:332 Management of Technology Based Operations (3 Credits)

A study of the techniques and knowledge necessary to effectively manage technical personnel. (Formerly 2870:332)

### AMET:348 CNC Programming I (3 Credits)

Prerequisites: [MATH 154 and MCET 121] or AMET 248, or permission. Introduction to CAM (Computer Aided Manufacturing) based CNC (Computer Numerical Control) programming; development of milling, drilling, and turning programs. (Formerly 2870:348)

### AMET:441 Advanced Quality Practices (3 Credits)

Prerequisite: AMET 241 or permission. Specific quality assurance procedures will be developed conceptually, proven mathematically, and then tested in lab exercises. Industry accepted SQC software will be used. (Formerly 2870:441)

### AMET:448 CNC Programming II (3 Credits)

Prerequisite: AMET 348. The study of advanced CNC programming techniques utilizing an industry standard CAM programming software package and CNC program verification software. (Formerly 2870:448)

### AMET:470 Simulation of Manufacturing Systems (3 Credits)

Prerequisite: AMET 211. Computer simulation solutions applied to the traditional manufacturing problems of equipment justification, production line balancing, and capacity planning. (Formerly 2870:470)

### AMET:480 Automated Production (3 Credits)

Prerequisites: AMET 301, AMET 448, and AMET 201. A study of the automated production system. The various systems studied thus far, CNC, robotics, automated machines via PLCs, and facilities design, are integrated and analyzed from a production standpoint. (Formerly 2870:480)

### AMET:485 SME Manufacturing Technologist Certification Preparation (2 Credits)

Prerequisites: AMET 441 and MCET 347. Pre/Corequisite: AMET 480. Provides a review for the SME Manufacturing Technologist Certification Exam. Topics include a review of materials and manufacturing processes, automated systems and control, quality and process control methods, manufacturing management, and other topics appearing on the exam. (Formerly 2870:485)

**AMET:490 Manufacturing Project (2 Credits)**

Prerequisite: Senior status. Advanced CAD/CAM topics are presented. A comprehensive project is undertaken. (Formerly 2870:490)

**AMET:495 Individual Investigation in Manufacturing Engineering Technology (2 Credits)**

Selected topic(s) that provide for specific individual study in the area of manufacturing engineering technology under the direct supervision of a faculty member. (Formerly 2870:495)

**AMET:496 Special Topics in Manufacturing Engineering Technology (1-3 Credits)**

Prerequisite: Permission. Selected topic(s) that provide for specific course work in the area of manufacturing engineering technology offered once or only occasionally in areas where no formal course exists. (Formerly 2870:496)

**AMET:499 Workshop in Manufacturing Engineering Technology (1-3 Credits)**

Prerequisite: Permission. Group studies of special topics in manufacturing engineering technology. (Formerly 2870:499)

## Mechanical Engineering Technology (MCET)

**MCET:100 Survey of Mechanical Engineering Technology (2 Credits)**

Corequisite: MATH 154. Overview of the Mechanical Engineering Technology degree programs; pre-testing; career opportunities; professional societies & certification; standards; and useful tools of the MET field. (Formerly 2920:100)

**MCET:101 Introduction to Mechanical Design (3 Credits)**

Prerequisite: AMET 140 or MCET 121. Corequisites: [AMET 230 or MCET 100] and MATH 154. Topics in engineering drawing: conventions, sections, dimensioning and tolerancing. Detail drawings, subassembly and assembly drawings. Introduction to various mechanical components and mechanical design tools. (Formerly 2920:101)

**MCET:102 Introduction to Engineering Technology (2 Credits)**

This introductory course stresses skills needed for academic success. Discussion of fields in engineering technology, job searches, calculators, and data measurement and analysis are included. (Formerly 2820:100)

**MCET:110 Physical Science for Technicians (3 Credits)**

Elementary presentation of theory and facts of general chemistry and physics (excluding electricity). Includes atomic structure, chemical reactions, energy, electromagnetic radiation, sound and mechanics. (Formerly 2820:110)

**MCET:121 Fundamentals of Engineering Drawing (3 Credits)**

Fundamentals of engineering drawing using freehand sketching and CAD; orthographic and isometric projections, sectioning, assemblies, and introduction to geometric dimensioning and tolerancing. Laboratory. (Formerly 2920:121)

**MCET:130 Introduction to Hydraulics and Pneumatics (3 Credits)**

Principles of hydrostatic forces, pressure, density, viscosity, incompressible and compressible fluids. Principles of hydraulic and pneumatic devices and systems. (Formerly 2920:130)

**MCET:131 Software Applications for Technology (1 Credit)**

Prerequisite: MATH 153. Word processing and spreadsheets used within technical applications. This course focuses on using software for technical reports and data analysis. Laboratory. (Formerly 2820:131)

**MCET:142 Introduction to Material Technology (3 Credits)**

Fundamental properties of materials. Material testing. Applications of methods to control material properties. (Formerly 2920:142)

**MCET:243 Kinematics (3 Credits)**

Prerequisite: COET 125. Corequisite: MCET 101. Study of rigid-body motions of simple linkages, cams, gears, and gear trains. Vector solutions emphasized. Industrial applications presented and computers used to analyze mechanisms. (Formerly 2920:243)

**MCET:245 Mechanical Design II (5 Credits)**

Prerequisites: MCET 101, MCET 243, and COET 225. Corequisite: MCET 142. Advanced stress and fatigue analysis, theories of failure. Design of machine elements: gears, keys and keyways. Experimental stress analysis and design projects. (Formerly 2920:245)

**MCET:249 Applied Thermal Energy I (2 Credits)**

Prerequisites: MATH 255 and PHYS 164. Thermodynamic principles. Study of power cycles. Applications in I.C. engines, compressors, steam power cycles, refrigeration. (Formerly 2920:249)

**MCET:251 Fluid Power (2 Credits)**

Prerequisites: PHYS 160 and PHYS 164. Statics and dynamics of fluids. Viscosity, energy and momentum relationships. Fluid machinery and measurements. (Formerly 2920:251)

**MCET:252 Thermo-Fluids Laboratory (1 Credit)**

Prerequisite: MCET 251. Corequisite: MCET 249. Laboratory experiments in applied thermal energy and fluid power. (Formerly 2920:252)

**MCET:290 Special Topics: Mechanical Engineering Technology (1-3 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in Mechanical Engineering Technology. (May be repeated for a total of four credits) (Formerly 2920:290)

**MCET:310 Economics of Technology (3 Credits)**

Prerequisite: 64 credits or permission. Economic principles as they pertain to technology. Equivalence, alternatives, costs, depreciation, valuation. Project studies. (Formerly 2920:310)

**MCET:312 Programming for Technologists (2 Credits)**

Prerequisites: MCET 131 and MATH 255. A study of a technical programming language with applications in engineering technology. Limited to students in Engineering & Science Technology Department programs. (Formerly 2820:310)

**MCET:344 Dynamics (3 Credits)**

Prerequisites: MCET 243, MATH 255, and COET 125. Introduces particle dynamics, displacement, velocity, and acceleration of constrained rigid bodies in plane motion. Kinetics of particles and rigid bodies, work and energy, mechanical vibration. (Formerly 2920:344)

**MCET:346 Mechanical Design III (4 Credits)**

Prerequisites: MCET 245 and MCET 344. Continuation of design of mechanical components: gears, bearings, shafts, springs, and fasteners. Special topics presented will be coordinated with assigned design projects. (Formerly 2920:346)

**MCET:347 Production Machinery & Processes (3 Credits)**

Prerequisites: MATH 255 and [AMET 110 or MCET 142]. Study of manufacturing processes (casting, forging, welding, forming sheet metal), integrating material technology, mechanical design, and mechanics of materials. (Formerly 2920:347)

**MCET:365 Applied Thermal Energy II (3 Credits)**

Prerequisites: MATH 255, MCET 249, and MCET 251. Review and application of basic thermodynamic principles used in designing automotive engines and refrigeration equipment. Introduction to heat transfer, heating, ventilation, and air conditioning. (Formerly 2920:365)



**MCET:370 Plastics Design & Process (3 Credits)**

Prerequisite: CHEM 151. Introduction to structure and properties of polymers, selection based on properties and cost, design of products and tools, basic principles of the major processes. (Formerly 2920:370)

**MCET:402 Mechanical Projects (2 Credits)**

Prerequisites: MCET 310, MCET 365, MCET 370, MCET 490, and [AMET 301 or MCET 405]. Individual projects emphasizing creative technical design. (Formerly 2920:402)

**MCET:405 Introduction to Industrial Machine Control (3 Credits)**

Prerequisite: EEET 370. Principles and design of industrial machine control systems. Application oriented study of typical control devices. Utilization of programmable controllers as the system logic controllers. (Formerly 2920:405)

**MCET:470 Plastics Processing & Testing (2 Credits)**

Prerequisite: MCET 370 or permission. Use of basic polymer testing methods. Setup and operation of modern molding and extrusion equipment. Basic troubleshooting procedures. Study of processing effects on final properties. (Formerly 2920:470)

**MCET:490 Mechanical Engineering Technology Senior Seminar (1 Credit)**

Prerequisites: MCET 346 and MCET 347. An opportunity for post-testing of all MET students and the presentation of social and professional responsibilities, diversity, professional certification, life-long learning, and career opportunities. (Formerly 2920:490)

**MCET:497 Senior Honors Project in Mechanical Engineering Technology (1-3 Credits)**

Prerequisites: Senior standing in Honors Program, permission of area honors preceptor, and major in mechanical technology. Independent research leading to completion of senior honors thesis or other original work. (May be repeated for a total of six credits) (Formerly 2920:497)

**MCET:498 Independent Study in Mechanical Engineering Technology (1-4 Credits)**

Prerequisite: Permission. Directed study in a special field of interest chosen by the student in consultation with the instructor. (May be repeated for a total of six credits). (Formerly 2920:498)

## Mechanical Engineering (MECE)

**MECE:165 Tools for Mechanical Engineering (3 Credits)**

Corequisite: MATH 149. Personal computer DOS system, word processing, spreadsheet, computer-aided drafting, math calculating package, mechanical graphics, and introduction to mechanical engineering program and curriculum. (Formerly 4600:165)

**MECE:203 Dynamics (3 Credits)**

Prerequisites: MATH 222, PHYS 291, and CIVE 201. Corequisite: MATH 223. Kinematics and kinetics of particles and rigid bodies. Principles of work, energy, momentum and impulse. (Formerly 4600:203)

**MECE:260 Engineering Analysis I (2 Credits)**

Prerequisite: MATH 222. Corequisite: MATH 223. Introduction to numerical methods in mechanical engineering; applications of computer tools (MatLab). (Formerly 4600:260)

**MECE:300 Thermodynamics I (3 Credits)**

Prerequisites: MATH 223 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: PHYS 292. Basic concepts of thermodynamics. Pure substances, closed and open systems, the first and second laws of thermodynamics. Entropy, vapor power cycles and vapor compression refrigeration. (Formerly 4600:300)

**MECE:301 Thermodynamics II (2 Credits)**

Prerequisites: MATH 335, MECE 300 and admission to an engineering major within the College of Engineering and Polymer Science. Absorption refrigeration. Gas cycles. Thermodynamics of state, gas mixtures and gas-vapor mixtures. Combustion. (Formerly 4600:301)

**MECE:305 Thermal Science (2 Credits)**

Prerequisite: MATH 223 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: PHYS 292. Credit not allowed for both 300 and 305. Introduction to first and second laws of thermodynamics, perfect gas relationships, equations of state, cycle analysis. Introduction to conduction, convection and radiation heat transfer. (Formerly 4600:305)

**MECE:310 Fluid Mechanics I (2 Credits)**

Prerequisites: MATH 223, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. Properties and behavior of gases and liquids at rest and in motion. Energy equation. Flow in conduits. Forces on body submerged in moving fluid. Dimensional analysis and similitude. (Formerly 4600:310)

**MECE:311 Fluid Mechanics II (3 Credits)**

Prerequisites: MATH 335, MECE 310 and admission to an engineering major within the College of Engineering and Polymer Science. Navier-Stokes equations. The boundary layer. External viscous flows and potential flow. Fundamentals of compressible flow. Concepts of computational fluid dynamics. (Formerly 4600:311)

**MECE:315 Heat Transfer (3 Credits)**

Prerequisites: MECE 300, [MECE 310 or BMEN 360], [MECE 360 or BMEN 220] and admission to an engineering major within the College of Engineering and Polymer Science. Fundamentals of heat transfer by conduction, convection and radiation. (Formerly 4600:315)

**MECE:321 Kinematics of Machines (2 Credits)**

Prerequisites: MECE 165, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. Displacements, velocities, accelerations and introduction to plan motion mechanisms. Introduction to design of gears, gear trains and cams. (Formerly 4600:321)

**MECE:336 Analysis of Mechanical Components (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: MATH 335. Analysis of stress and strain at a point. Mohr's circles, shear centers, elastic instability. Stresses in thick and thin cylinders. Fatigue analysis. (Formerly 4600:336)

**MECE:337 Design of Mechanical Components (3 Credits)**

Prerequisites: [MECE 336 or AESE 336] and admission to an engineering major within the College of Engineering and Polymer Science. Application of stress analysis to design of fasteners, welds, springs, ball bearings and gears. Introduction to journal bearings and lubrication. Component design projects. (Formerly 4600:337)

**MECE:340 Systems Dynamics & Response (3 Credits)**

Prerequisites: MATH 335, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. A unified approach to modeling, analysis, response and stability of engineering systems: analog, digital and hybrid computer simulation of interdisciplinary engineering problems are included. (Formerly 4600:340)

**MECE:360 Engineering Analysis II (2 Credits)**

Prerequisites: MATH 335, MECE 260 and admission to an engineering major within the College of Engineering and Polymer Science. Numerical methods of solution of mechanical engineering problems. (Formerly 4600:360)

**MECE:380 Introduction to Materials Science and Engineering (2 Credits)**

Prerequisites: CHEM 153 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CIVE 202. Introduction to metallurgy and advanced engineering materials including polymers, composites and ceramics. Topics include structure of materials, macroscopic mechanical behavior, phase change and heat treatment of metals, and theories of failure. (Formerly 4600:380)

**MECE:400 Thermal System Components (3 Credits)**

Prerequisites: MECE 315, [MECE 311 or MECE 411], and full admission to an engineering program in the College of Engineering and Polymer Science. Performance analysis and design of basic components of thermal energy exchange and conversion systems. Components studied include heat exchangers, pumps, compressors, turbines and expansion engines. (Formerly 4600:400)

**MECE:402 Senior Seminar (1 Credit)**

Prerequisite: Admission to the College of Engineering. Corequisites: MECE 400, MECE 441, MECE 460 and MECE 461. Students need further education in ethics, codes and standards, intellectual property, product liability, safety issues, technical writing, diversity, and job opportunities. (Formerly 4600:402)

**MECE:410 Heating & Air Conditioning (3 Credits)**

Prerequisite: MECE 301 or permission. Corequisite: MECE 315 or permission. Thermodynamics of gas mixtures. Design and selection of air conditioning equipment. Control of gas mixtures, heating, cooling and humidity. (Formerly 4600:410)

**MECE:411 Compressible Fluid Mechanics (3 Credits)**

Prerequisites: MECE 300, MECE 310 and full admission to an engineering program in the College of Engineering and Polymer Science. Subsonic and supersonic flow in nozzles, diffusers and ducts. One-dimensional reactive gas dynamics. Prandtl-Myer theory. Applications to design and analysis of compressors, turbines and propulsion devices. (Formerly 4600:411)

**MECE:412 Fundamentals of Flight (3 Credits)**

Prerequisites: [MECE 311 or MECE 411], MECE 413 and full admission to an engineering program in the College of Engineering and Polymer Science. Introduction to basic aerodynamics, airplane performance, stability and control, astronautics and propulsion. Design considerations are emphasized. (Formerly 4600:412)

**MECE:413 Introduction to Aerodynamics (3 Credits)**

Prerequisites: MECE 300, MECE 310, and full admission to an engineering program in the College of Engineering and Polymer Science. Introduction of aerodynamic concepts; includes conformal transformations, theory of thin airfoils, two-dimensional airfoil theory, wings of finite span, lifting line theories, lumped vortex, vortex lattice, and panel methods. (Formerly 4600:413)

**MECE:414 Introduction to Aerospace Propulsion (3 Credits)**

Prerequisites: [MECE 311 or MECE 411] and full admission to an engineering program in the College of Engineering and Polymer Science. Introduction to propulsion systems currently used in aerospace fields; propulsion principles for turbojets, turbopumps, ramjets, chemical rockets, and electrical rocket propulsion. (Formerly 4600:414)

**MECE:415 Energy Conversion (3 Credits)**

Prerequisites: MECE 301 or permission. Corequisite: MECE 315 or permission. Topics from fields of internal combustion engines, cycle analysis, modern conversion devices. (Formerly 4600:415)

**MECE:416 Heat Transfer Processes (3 Credits)**

Prerequisite: MECE 315 or permission. Analysis, design of extended surfaces. Natural convection and mixed convection, combined modes of heat transfer and heat transfer with phase changes. (Formerly 4600:416)

**MECE:420 Introduction to Finite Element Method (3 Credits)**

Prerequisites: CIVE 202, [MECE 315 or BMEN 362], and admission to an engineering major within the College of Engineering and Polymer Science. Introduction to matrix and finite element methods. Stiffness and flexibility formulations in solid mechanics and thermal sciences. Basic finite element methods and its implementation. (Formerly 4600:420)

**MECE:422 Experimental Stress Analysis I (3 Credits)**

Prerequisite: MECE 336 or permission. Experimental methods of determining stress or strain: brittle lacquer, strain gages, photoelasticity, full field techniques. (Formerly 4600:422)

**MECE:430 Machine Dynamics (3 Credits)**

Prerequisite: MECE 321 or permission. Static and dynamic forces in machines, products of inertia, dynamic equivalence, flywheels. Balancing of rotating, reciprocating, cyclic plane motion. Computer simulation of transient mechanism dynamics, other topics in advanced dynamics. (Formerly 4600:430)

**MECE:431 Fundamentals of Mechanical Vibrations (3 Credits)**

Prerequisites: MATH 335, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Undamped and forced vibrations of systems having one or two degrees of freedom. (Formerly 4600:431)

**MECE:432 Vehicle Dynamics (3 Credits)**

Prerequisites: MECE 203 and MATH 335 or permission. Application of dynamic systems analysis techniques to road vehicles. Newtonian and Lagrangian methods. Tire/road interface. Ride characteristics, handling and stability. Digital simulation. (Formerly 4600:432)

**MECE:440 System Dynamics & Control (4 Credits)**

See department for course description. (Formerly 4600:440)

**MECE:441 Control Systems Design (3 Credits)**

Prerequisites: MECE 340 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Methods of feedback control design such as minimized error, root-locus, frequency domain. Compensation techniques. Multivariable and nonlinear design methods and computer-aided control design. (Formerly 4600:441)

**MECE:442 Industrial Automatic Control (3 Credits)**

Prerequisite: MECE 441 or permission. Operation of basic control mechanisms. Study of mechanical, hydraulic, pneumatic, fluidic control systems, including application areas. Tuning of control devices for optimum performance of system. Case studies on control applications from industry, e.g. boilers, furnaces, process heaters. (Formerly 4600:442)

**MECE:443 Optimization Methods in Mechanical Engineering (3 Credits)**

Prerequisite: MECE 360 or permission. Development and method of solution of optimization problems in mechanical engineering. The use of dynamic programming and operational research methods for optimization including computer utilization and applications. (Formerly 4600:443)

**MECE:444 Robot Design, Control & Application (3 Credits)**

Prerequisites: MECE 321, MECE 441 and admission to a degree-granting program in the College of Engineering and Polymer Science. Robot design and control. Kinematic transformations, velocities and accelerations, path trajectories and dynamics, control and sensing in robotics. The automated factory with robot applications. (Formerly 4600:444)

**MECE:450 Introduction to Computational Fluid Flow & Convection (3 Credits)**

Prerequisites: MECE 315 and MECE 360 or permission. Numerical modeling of fluid/thermal systems; numerical solution of the momentum and thermal boundary layer equations; flow simulation using advanced heat transfer/fluid/graphics packages. (Formerly 4600:450)

**MECE:460 Concepts of Design (3 Credits)**

Prerequisites: MECE 337 and admission to an engineering major within the College of Engineering and Polymer Science. Design process. Creativity and inventiveness. Tools of decision making, engineering economics, reliability, optimization. Case studies. (Formerly 4600:460)

**MECE:461 ME Senior Design Project I (2 Credits)**

Prerequisite: Admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: MECE 301, MECE 340 and MECE 337. Detailed senior design project. Design, feasibility, and cost analysis. (Formerly 4600:461)

**Gen Ed:** - Capstone

**MECE:462 Pressure Vessel Design (3 Credits)**

Prerequisite: MECE 336 or permission. Introduction to modern pressure vessel technology. Topics include basic structural considerations, materials and their environment and design-construction features. (Formerly 4600:462)

**MECE:463 Computer Aided Design & Manufacturing (3 Credits)**

Prerequisites: MECE 165 and MECE 360 or permission. The use of computer systems to assist in the creation, modification, analysis, or optimization of engineering designs, and to plan, manage, and control manufacturing plants. (Formerly 4600:463)

**MECE:465 Technology Based Startups: Ideate, Invent and Innovate (3 Credits)**

Prerequisite: Permission of the department. This course will provide students with the opportunity to extend their fundamental knowledge of entrepreneurship within the specific interdisciplinary context of technology commercialization. Working in interdisciplinary groups the student teams/groups will be taught design thinking approaches that put the customer at the center of the creative process. Brainstorming exercises will be held to solve open ended problems on special topics (e.g. biomimicry, software, medical devices, sensors etc.) so that teams can ideate and conceptualize product, process or service based ideas that solve real problems. In some cases, students can be assigned known research technologies and learn how to come up with applications that have commercialization potential. The evaluation will include, but not be limited to, evaluation of the underlying technology, determination of potential customer value proposition(s), determination of market feasibility, examination of licensing/spin-off options, identification of potential licensees, estimation of potential market size and value, and development of recommendations for further funding, growth (or abandonment). By working in teams, students will learn how to create/invent a product prototype, learn how to listen to potential customers and come back to describe the value proposition that will make the startup successful. (Formerly 4600:465)

**MECE:471 ME Senior Design Project II (2 Credits)**

Prerequisites: MECE 461 and admission to an engineering major within the College of Engineering and Polymer Science. Detailed senior design project. Final design and implementation. (Formerly 4600:471)

**MECE:480 Materials Selection in Design (3 Credits)**

Prerequisites: [CHEE 305 or MECE 380] and admission to an engineering major within the College of Engineering and Polymer Science or permission. Materials selection from the perspective of design including material properties, processing approaches, shape considerations, hybrid materials, and tradeoffs including environmental and cost. (Formerly 4600:480)

**MECE:482 Fundamentals of Composite Processing and Mechanics (3 Credits)**

Prerequisites: MATH 335, CIVE 202, and admission to an engineering major within the College of Engineering and Polymer Science. Polymer-matrix composite processing, manufacturing, and mechanics. The emphasis is on discontinuous fiber reinforcements. (Formerly 4600:482)

**MECE:483 Measurements Laboratory (2 Credits)**

Prerequisites: MECE 300, MECE 310, and full admission to an engineering program in the College of Engineering and Polymer Science. Development of methods to measure temperature, pressure, flow rate, viscosity and motion. Includes both lecture and laboratory experience and emphasizes calibration and accuracy of appropriate instruments. (Formerly 4600:483)

**MECE:484 Mechanical Engineering Laboratory (2 Credits)**

Prerequisites: MECE 301, MECE 311, MECE 315, MECE 380, MECE 431, MECE 483, and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: MECE 441. Laboratory experiments in area of dynamics, vibrations, thermodynamics, fluids, heat transfer and controls. (Formerly 4600:484)

**MECE:485 3D Printing and Additive Manufacturing (3 Credits)**

Prerequisites: MECE 165, MECE 360, and junior or greater standing or permission. Introduction to 3D Printing and Additive Manufacturing including various processes, materials, and applications; Hands-on practice and design/manufacturing project; State of the art of 3D Printing. (Formerly 4600:485)

**MECE:486 Special Topics: Mechanical Engineering (1-3 Credits)**

Prerequisite: Permission. Brief description of current content to be announced in schedule of classes. (Formerly 4600:486)

**MECE:497 Honors Project in Mechanical Engineering (2 Credits)**

Prerequisites: MECE 461 and admission to an engineering major in the College of Engineering and Polymer Science. Capstone design project in thermal science, mechanics or a research topic relevant to mechanical engineering, supervised by faculty member of the department. (Formerly 4600:497)

**MECE:498 Experimental Investigation in Mechanical Engineering (1-2 Credits)**

Individual independent laboratory investigations in areas relevant to mechanical engineering. Student suggests a project and makes appropriate arrangements with faculty for supervision. (Formerly 4600:498)

## Aerospace Systems Engineering (AESE)

**AESE:165 Tools for Aerospace Systems Engineering (2 Credits)**

Pre/Corequisite: MATH 149. Computer applications, solid modeling, introduction to programming, and introduction to aerospace engineering program and curriculum; outside speakers; project involving design and construction of small RC aircraft. (Formerly 4900:165)

**AESE:166 Aerospace Systems Project Management (1 Credit)**

Prerequisite: AESE 165. Teamwork and project planning; semester project involving continuation of design and construction of small RC aircraft in conjunction with SAE Aero Design. (Formerly 4900:166)

**AESE:240 Aerospace Systems Engineering I (3 Credits)**

Prerequisite: MATH 223. An introductory systems course focusing on systems thinking, systems engineering tools, reliability, life-cycle analysis and statistics. (Formerly 4900:240)

**AESE:320 Aerospace Systems Engineering II (3 Credits)**

Prerequisites: MECE 360, AESE 240 and full admission to an engineering program in the College of Engineering and Polymer Science. An extended study of systems topics including linear programming, optimization, decision making, critical path scheduling, and verification. (Formerly 4900:320)

**AESE:336 Aerospace Structures (3 Credits)**

Prerequisites: CIVE 202, MATH 335. Basic theory and methods for analysis and design of aerostructures are covered. Topics include torsion, shear flow, buckling, fracture, and fatigue of beams and plates. (Formerly 4900:336)

**AESE:340 Avionics I (3 Credits)**

Prerequisites: ELEN 307 and admission to an engineering major within the College of Engineering and Polymer Science. Electronics for aircraft applications. Amplifiers, filters, regulators, current sources, buffers, sensor and actuator circuits, transmitters, and receivers. (Formerly 4900:340)

**AESE:380 Aerospace Materials (3 Credits)**

Prerequisites: CHEM 151, CHEM 152, CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Theory in science and application of materials for aerospace structures, macroscopic behavior of materials, order and disorder in mechanical behavior, evaluating and quantifying mechanical response. (Formerly 4900:380)

**AESE:420 Object Oriented Design & Management (3 Credits)**

Prerequisites: AESE 320 and admission to an engineering major within the College of Engineering and Polymer Science. An introduction to the area of object-oriented design and management of systems, including abstraction, inheritance, polymorphism, dynamic interactions, hierarchies, patterns, reflection, and distributed objects. (Formerly 4900:420)

**AESE:440 Avionics II (3 Credits)**

Prerequisites: AESE 340 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: MECE 412. Communication and control for aircraft applications. Fourier analysis, AM and FM principles, modulators demodulators, communication systems. aircraft system dynamics, classical control system principles and applications. (Formerly 4900:440)

**AESE:450 Aerospace Computations (3 Credits)**

Prerequisites: CIVE 202, MECE 315, MECE 360, MECE 411 and admission to an engineering major within the College of Engineering and Polymer Science or permission of instructor. Introduction to finite element and finite volume methods in aerospace engineering; fundamental principles of FEM and FVM discussed and illustrated through structural, and aerodynamic applications. (Formerly 4900:450)

**AESE:460 Aerospace Systems Manufacturing (3 Credits)**

Prerequisites: MECE 360 or equivalent and admission to an engineering major within the College of Engineering and Polymer Science or permission of instructor. Using computer systems to assist in creation, modification, analysis, or optimization of engineering designs, planning, management and control of manufacturing, CAD software with manufacturing applications. (Formerly 4900:460)

**AESE:490 Aerospace Design Project (2 Credits)**

Prerequisites: Senior standing and admission to an engineering major within the College of Engineering and Polymer Science or permission. Detailed senior design project. Design, feasibility and cost analysis, final design and implementation; engine, airframe and aerodynamic testing. (Formerly 4900:490)

**Gen Ed:** - Complex Issues Facing Society

**AESE:491 Aerospace Design Project I (1 Credit)**

Prerequisites: Senior standing and admission into the Aerospace Systems Engineering program. Preliminary senior design project including the design proposal, feasibility, cost analysis and preliminary design. (Formerly 4900:491)

**Gen Ed:** - Capstone

**AESE:492 Aerospace Design Project II (2 Credits)**

Prerequisite: AESE 491. Detailed senior design project. Final design, testing and implementation (Formerly 4900:492)

**AESE:497 Aerospace Honors Project (2 Credits)**

Prerequisite: Senior standing in Honors College or permission. Individual creative project in Aerospace Systems, supervised by faculty member of the department. Includes design, feasibility and cost analysis, final design and implementation. (Formerly 4900:497)

**Gen Ed:** - Complex Issues Facing Society

## Advanced Manufacturing Engineering Technology, AAS

### Associate of Applied Science in Advanced Manufacturing Engineering Technology (288006AAS)

More on the Advanced and Automated Manufacturing Engineering Technology programs (<https://www.uakron.edu/engineering/me/undergraduate/manufacturing-tech/>)

### Program Information

Advanced Manufacturing Engineering Technology is concerned with the analysis, design, and management of all the resources, facilities, and people involved in manufacturing processes. Advanced Manufacturing Engineering Technology requires a background in basic technical subjects, management techniques, work measurement, safety procedures, plant layout, quality control, maintenance, production control, economics, and computer applications such as CAD, CNC, and CAM.

### Career Information

A graduate of this program finds employment in manufacturing supervision and control. Duties involve the design, modification, installation, and operation of advanced manufacturing systems, materials, machines, and methods used to produce a product at a profit. Specific career opportunities may be found in the following functional areas:

- Manufacturing Engineering Technician
- Manufacturing Supervision
- Methods – production, planning, methods and engineering
- Work Measurements – time study, motion study, and standards
- Wage Payment – wage incentives, job evaluation
- Controls – production control, quality control, inventory control

- Plant Facilities and Design – plant layout, material handling, product design, storage facilities, and maintenance of plant equipment
- Industrial Relations – management-union relations, workers' compensation
- Purchasing
- Safety and Industrial Hygiene
- Estimating
- Profit and Cost Analysis
- Quality Control and Assurance

## Cooperative Education

Cooperative education work experiences are available on an optional basis in this academic program.

## Bachelor Degree Programs

Upon completion of the Advanced Manufacturing Engineering Technology Associate of Applied Science Degree, a student may proceed to the Automated Manufacturing Engineering Technology Bachelor of Science Degree (p. 561). Please refer to the Automated Manufacturing Engineering Technology Bachelor of Science Degree Curriculum Guide for further information. An additional degree option is to proceed to the Bachelor of Organizational Supervision Degree (p. 108).

The following information has official approval of **The Department of Mechanical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements Summary

Code	Title	Hours
	Major Courses for General Education	15
	Other Discipline Specific Courses	11
	Math and Physical/Natural Science Courses	11
	Required Courses	25
	Total Hours	62

## Major Courses for General Education

Code	Title	Hours
ENGL:111	English Composition I	3
ENGL:222	Technical Report Writing	3
COMM:263	Professional Communications and Presentations	3
	Social Science Requirement	6
	Total Hours	15

## Other Discipline Specific Courses

Code	Title	Hours
MCET:130	Introduction to Hydraulics and Pneumatics <sup>1,2</sup>	3
MCET:142	Introduction to Material Technology	3
MCET:121	Fundamentals of Engineering Drawing	3
EEET:210	Industrial Control Panel Fabrication	2
	Total Hours	11

## Math and Physical/Natural Science Courses

Code	Title	Hours
MATH:152	Technical Mathematics II	2
MATH:153	Technical Mathematics III	2
MATH:154	Technical Mathematics IV	3
PHYS:261	Physics for Life Sciences I	4
	Total Hours	11

## Required Courses

Code	Title	Hours
AMET:101	Introduction to Advanced Manufacturing <sup>1,3</sup>	2
AMET:110	Manufacturing Processes <sup>1,3</sup>	3
AMET:151	Industrial Safety & Environmental Protection <sup>3</sup>	2
AMET:248	Introduction to CNC and Additive Manufacturing	3
AMET:130	Work Measurement & Cost Estimating	3
AMET:211	Manufacturing Operations <sup>1</sup>	3
AMET:241	Introduction to Quality Assurance	3
AMET:201	Robotics & Automated Manufacturing	3
AMET:225	Computer Aided Tool Design	3
	Total Hours	25

<sup>1</sup> Traditionally Fall only (See Program Director).

<sup>2</sup> Traditionally Spring only (See Program Director).

<sup>3</sup> Students completing NTMA Journeyman's Machinist Program receive block credit for these courses. Students who have not completed the entire program or who have completed the program prior to 1/1/96, see an advisor.

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
MATH:152 Technical Mathematics II <sup>3</sup>	2
MATH:153 Technical Mathematics III <sup>3</sup>	2
MCET:130 Introduction to Hydraulics and Pneumatics <sup>1,3</sup>	3
AMET:101 Introduction to Advanced Manufacturing <sup>1,3</sup>	2
AMET:110 Manufacturing Processes <sup>1,3</sup>	3
Hours	15

### Spring Semester

AMET:151 Industrial Safety & Environmental Protection <sup>2,3</sup>	2
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AMET:248	Introduction to CNC and Additive Manufacturing	3
MATH:154	Technical Mathematics IV	3
MCET:121	Fundamentals of Engineering Drawing	3
	Social Science Requirement	3
	Hours	14
<b>Summer Semester</b>		
	Cooperative Education	
	Hours	0
<b>2nd Year</b>		
<b>Fall Semester</b>		
COMM:263	Professional Communications and Presentations	3
AMET:130	Work Measurement & Cost Estimating <sup>1</sup>	3
AMET:211	Manufacturing Operations <sup>1</sup>	3
PHYS:261	Physics for Life Sciences I	4
ENGL:222	Technical Report Writing	3
	Hours	16
<b>Spring Semester</b>		
AMET:241	Introduction to Quality Assurance (Sch. Lab)	3
AMET:201	Robotics & Automated Manufacturing (Sch. Lab) <sup>2</sup>	3
EEET:210	Industrial Control Panel Fabrication	2
AMET:225	Computer Aided Tool Design	3
MCET:142	Introduction to Material Technology	3
	Social Science Requirement	3
	Hours	17
	Total Hours	62

<sup>1</sup> Traditionally Fall only (See Program Director).

<sup>2</sup> Traditionally Spring only (See Program Director).

<sup>3</sup> Students completing NTMA Journeyman's Machinist Program receive block credit for these courses. Students who have not completed the entire program or who have completed the program prior to 1/1/96, see an advisor.

## Aerospace Systems Engineering, BS

### Bachelor of Science in Aerospace Systems Engineering (490005BS)

Completion of degree requirements for the Aerospace Systems Engineering program requires that students complete several required semester-long cooperative education assignments with corporations or governmental entities in the aerospace industry. Based on aerospace industry requirements for full-time and cooperative education placement, full admission to the Aerospace Systems Engineering program is limited to citizens or permanent resident aliens of the United States.

The Bachelor of Science in Aerospace Systems Engineering degree program is intended to produce engineers who possess both a broad, interdisciplinary knowledge of aerospace engineering fundamentals and who will be able to move quickly into the role of project managers, the precursor position to program managers and ultimately, senior managers. These engineers can lead multidisciplinary teams and bring about the integration of components in a variety of systems. The

program includes basic engineering and aerospace courses and will also include specific non-engineering courses, selected to meet the goal of developing future senior technical leaders for our aerospace industries. The program features a mandatory co-op component that begins following the sophomore year. The co-op requirement is expected to fill out the student's technical background as well as provide a basis for broad personal growth that is part of the aim of the General Education requirement. Three fewer hours of General Education courses are required for Aerospace Systems Engineering due to the mandatory co-op.

## Requirements for Admission

All students gain access to 300 and 400 level engineering classes once you:

- Have a cumulative GPA at UA of 3.0
- Complete Calculus 2 with a C- or higher
- Have a 2.3 grade point average in *at least* three of the following categories:
  - in all coursework
  - in all *required* mathematics coursework
  - in all *required* science coursework (Chemistry, Physics, Computer Science, Biology)
  - in all engineering coursework

The Aerospace Systems Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org/>). The program educational objectives (PEOs) for the Aerospace Systems Engineering program are that, within a few years after graduation, our Aerospace Systems Engineering graduates:

- Practice the aerospace systems engineering disciplines successfully within community accepted standards
- Acquire teamwork and communications skills to develop a successful career in aerospace systems engineering
- Fulfill professional and ethical responsibilities in the practice of aerospace systems engineering, including social, environmental, and economical considerations
- Engage in professional service, such as participation in professional society and community service
- Engage in life-long learning activities, such as graduate studies or professional workshops
- Develop a professional career in the prevailing market that meets personal goals, objectives and desires

To meet those program educational objectives as well as the curricular requirements specified by the American Institute of Aeronautics and Astronautics, the Aerospace Systems Engineering program identifies student outcomes, which are what students to achieve by the time of graduation. They are:

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

(3) an ability to communicate effectively with a range of audiences

(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Accelerated BS/MS program

The department offers B.S. Aerospace Systems Engineering students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Mechanical Engineering with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of the **Department of Mechanical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	21
	Math and Science Requirements	27
	Accounting and Economics Requirements	6
	Tools and Project Management	3
	Fundamental Engineering Courses	18
	Upper Level Requirements	64
	Co-op Courses	0
	<b>Total Hours</b>	<b>139</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
	<b>Academic Foundations</b>	<b>12</b>

*Mathematics, Statistics and Logic: 3 credit hours*

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

**Breadth of Knowledge** **22**

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

**Total Hours** **34**

## Math and Science Requirements

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
	<b>Total Hours</b>	<b>27</b>

## Accounting and Economics Requirements

Code	Title	Hours
ECON:244	Introduction to Economic Analysis	3
ACCT:201	Accounting Principles I	3
	<b>Total Hours</b>	<b>6</b>

## Tools and Project Management

Code	Title	Hours
AESE:165	Tools for Aerospace Systems Engineering	2
AESE:166	Aerospace Systems Project Management	1
	<b>Total Hours</b>	<b>3</b>

## Fundamental Engineering Courses

Code	Title	Hours
CIVE:201	Statics	3
CIVE:202	Introduction to Mechanics of Solids	3
MECE:203	Dynamics	3
MECE:260	Engineering Analysis I	2
MECE:300	Thermodynamics I	3
ELEN:307	Basic Electrical Engineering	4
	<b>Total Hours</b>	<b>18</b>

## Upper Level Requirements

Code	Title	Hours
MECE:310	Fluid Mechanics I	2
MECE:360	Engineering Analysis II	2
MECE:402	Senior Seminar	1
MECE:315	Heat Transfer	3
MECE:337	Design of Mechanical Components	3
MECE:400	Thermal System Components	3
MECE:411	Compressible Fluid Mechanics	3
MECE:413	Introduction to Aerodynamics	3
MECE:412	Fundamentals of Flight	3
MECE:414	Introduction to Aerospace Propulsion	3
MECE:460	Concepts of Design	3
MECE:483	Measurements Laboratory	2
AESE:240	Aerospace Systems Engineering I	3
AESE:336	Aerospace Structures	3
AESE:340	Avionics I	3
AESE:380	Aerospace Materials	3
AESE:320	Aerospace Systems Engineering II	3
AESE:420	Object Oriented Design & Management	3
AESE:440	Avionics II	3
AESE:450	Aerospace Computations	3
AESE:460	Aerospace Systems Manufacturing	3
AESE:491	Aerospace Design Project I	1
AESE:492	Aerospace Design Project II	2
BMEN:470	Human Factors Engineering	3
Total Hours		64

## Co-op Courses

Code	Title	Hours
GGEN:301	Cooperative Education Work Period	0
GGEN:302	Cooperative Education Work Period	0
GGEN:403	Cooperative Education Work Period	0

## Recommended Sequence

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
AESE:165	Tools for Aerospace Systems Engineering	2
General Education or Honors Distribution <sup>4</sup>		3
Hours		16

### Spring Semester

MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
AESE:166	Aerospace Systems Project Management	1
Second Writing Course <sup>1,3</sup>		3
General Education or Honors Distribution <sup>4</sup>		3
Hours		15

### 2nd Year

#### Fall Semester

ECON:244	Introduction to Economic Analysis	3
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
General Education or Honors Distribution <sup>4</sup>		3
Hours		17

#### Spring Semester

MATH:335	Introduction to Ordinary Differential Equations	3
CIVE:202	Introduction to Mechanics of Solids	3
ELEN:307	Basic Electrical Engineering	4
MECE:203	Dynamics <sup>1</sup>	3
MECE:260	Engineering Analysis I	2
Hours		15

### 3rd Year

#### Fall Semester

MECE:300	Thermodynamics I	3
MECE:310	Fluid Mechanics I	2
MECE:360	Engineering Analysis II	2
AESE:240	Aerospace Systems Engineering I	3
AESE:336	Aerospace Structures	3
ACCT:201	Accounting Principles I	3
Hours		16

#### Spring Semester

GGEN:301	Cooperative Education Work Period	0
Hours		0

#### Summer Semester

MECE:337	Design of Mechanical Components	3
AESE:340	Avionics I	3
AESE:380	Aerospace Materials	3
Hours		9

### 4th Year

#### Fall Semester

GGEN:302	Cooperative Education Work Period	0
Hours		0

#### Spring Semester

MECE:315	Heat Transfer	3
MECE:411	Compressible Fluid Mechanics	3
MECE:483	Measurements Laboratory	2
BMEN:470	Human Factors Engineering	3
AESE:460	Aerospace Systems Manufacturing	3
General Education or Honors Distribution <sup>4</sup>		3
Hours		17

#### Summer Semester

GGEN:403	Cooperative Education Work Period	0
Hours		0

### 5th Year

#### Fall Semester

MECE:402	Senior Seminar	1
MECE:413	Introduction to Aerodynamics	3



MECE:414	Introduction to Aerospace Propulsion	3
MECE:460	Concepts of Design	3
AESE:320	Aerospace Systems Engineering II	3
AESE:491	Aerospace Design Project I	1
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	17
<b>Spring Semester</b>		
MECE:412	Fundamentals of Flight	3
MECE:400	Thermal System Components	3
AESE:420	Object Oriented Design & Management	3
AESE:440	Avionics II	3
AESE:450	Aerospace Computations	3
AESE:492	Aerospace Design Project II	2
	Hours	17
	Total Hours	139

<sup>1</sup> Honors sections may be available; check the schedule of classes.

<sup>2</sup> The Mechanical Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.

<sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

<sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

## Automated Manufacturing Engineering Technology, BS Bachelor of Science in Automated Manufacturing Engineering Technology (287103BS)

More on the Advanced and Automated Manufacturing Engineering Technology programs (<https://www.uakron.edu/engineering/me/undergraduate/manufacturing-tech/>)

### Program Information

Graduates of the Automated Manufacturing Engineering Technology degree will possess knowledge in robotics, computer integrated manufacturing, computer numerical control, manufacturing processes, manufacturing operations management, and quality control techniques to enter technologist level careers in process and system design, manufacturing operations, maintenance, and technical sales or service.

The first two years can be completed as the AAS degree in Advanced Manufacturing Engineering Technology (p. 556) (288006AAS). Students holding a different relevant associate degree or having completed the first two years of a relevant bachelor degree program can bridge to the final two years of the BS in Automated Manufacturing Engineering Technology using the bridgework shown.

### Required Bridgework

1. Completion of a relevant associate degree program in engineering, science, or business technology (or related) or the first two years of a relevant bachelor degree program with a minimum grade point average of 2.0.
2. Completion of AMET:241 Introduction to Quality Assurance or equivalent with a minimum grade of C.
3. Completion of AMET:110 Manufacturing Processes or equivalent with a minimum grade of C.
4. Completion of AMET:248 Introduction to CNC and Additive Manufacturing or equivalent with a minimum grade of C.

### Cooperative Education

Cooperative education work experiences are available on an optional basis in this academic program.

The following information has official approval of the **Department of Mechanical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		
	Major Courses for General Education	27
	Other Discipline Specific Courses	38
	Math and Physical/Natural Science Courses	18
	Required Courses	48
	Total Hours	131

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

### General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	

*Social Sciences: 6 credit hours*

Diversity	
Domestic Diversity	
Global Diversity	
Integrated and Applied Learning	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
Total Hours	34

## Major Courses for General Education

Code	Title	Hours
ENGL:111	English Composition I	3
COMM:263	Professional Communications and Presentations	3
ENGL:222	Technical Report Writing	3
	Social Science Requirement	6
	Arts and Humanities Requirement	9
	Complex Issues Requirement	3
Total Hours		27

## Other Discipline Specific Courses

Code	Title	Hours
MCET:130	Introduction to Hydraulics and Pneumatics <sup>1,2</sup>	3
MCET:142	Introduction to Material Technology	3
MCET:121	Fundamentals of Engineering Drawing	3
MCET:405	Introduction to Industrial Machine Control	3
MCET:310	Economics of Technology	3
MCET:101	Introduction to Mechanical Design <sup>1</sup>	3
MCET:370	Plastics Design & Process <sup>1</sup>	3
MCET:347	Production Machinery & Processes <sup>5</sup>	3
EEET:210	Industrial Control Panel Fabrication	2
EEET:242	Machinery & Controls	3
EEET:370	Survey of Electronics I <sup>1</sup>	3
	Technical Elective <sup>4</sup>	6
Total Hours		38

## Math and Physical/Natural Science Courses

Code	Title	Hours
MATH:152	Technical Mathematics II <sup>3</sup>	2
MATH:153	Technical Mathematics III <sup>3</sup>	2
MATH:154	Technical Mathematics IV	3
MATH:255	Technical Calculus I	3
PHYS:261	Physics for Life Sciences I	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
Total Hours		18

## Required Courses

Code	Title	Hours
AMET:101	Introduction to Advanced Manufacturing <sup>1,3</sup>	2
AMET:110	Manufacturing Processes <sup>1,3</sup>	3
AMET:151	Industrial Safety & Environmental Protection <sup>3</sup>	2
AMET:248	Introduction to CNC and Additive Manufacturing	3
AMET:130	Work Measurement & Cost Estimating	3
AMET:211	Manufacturing Operations <sup>1</sup>	3
AMET:241	Introduction to Quality Assurance	3
AMET:201	Robotics & Automated Manufacturing <sup>3</sup>	3
AMET:311	Facilities Planning <sup>2</sup>	3
AMET:225	Computer Aided Tool Design	3
AMET:332	Management of Technology Based Operations	3
AMET:348	CNC Programming I (Sch. lab) <sup>1</sup>	3
AMET:230	3-D Modeling & Design	3
AMET:441	Advanced Quality Practices <sup>1</sup>	3
AMET:448	CNC Programming II <sup>1</sup>	3
AMET:480	Automated Production <sup>2</sup>	3
AMET:485	SME Manufacturing Technologist Certification Preparation <sup>2</sup>	2
Total Hours		48

<sup>1</sup> Traditionally Fall course.

<sup>2</sup> Traditionally Spring course.

<sup>3</sup> Students completing NTMA Journeyman's Machinist Program receive block credit for these courses. Students who have not completed the entire program or who have completed the program prior to 1/1/96, see an advisor.

<sup>4</sup> Automated Manufacturing Engineering Technology Approved Technical Electives: Availability dependent on enrollment demands and classroom availability.

<sup>5</sup> Course must be part of the Ohio Transfer Module

## List of Technical Electives

Code	Title	Hours
MATH:345	Technical Data Analysis	2
MATH:356	Technical Calculus II	3
MCET:251	Fluid Power	2
MCET:310	Economics of Technology	3
MCET:470	Plastics Processing & Testing	2
STAT:261	Introductory Statistics I	2
STAT:262	Introductory Statistics II	2
COET:125	Statics	3
COET:225	Strength of Materials	3
COET:462	Mechanical Service Systems	3
COET:463	Electrical Service Systems	3
EEET:121	Introduction to Electronics and Computers	2
EEET:237	Digital Circuits	4
EEET:310	National Electrical Code and Electrical System Design	3

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
MATH:152	Technical Mathematics II <sup>3</sup>	2
MATH:153	Technical Mathematics III <sup>3</sup>	2
MCET:130	Introduction to Hydraulics and Pneumatics <sup>1,3</sup>	3
AMET:101	Introduction to Advanced Manufacturing <sup>1,3</sup>	2
AMET:110	Manufacturing Processes <sup>1,3</sup>	3
Hours		15

### Spring Semester

MCET:121	Fundamentals of Engineering Drawing	3
AMET:151	Industrial Safety & Environmental Protection <sup>2,3</sup>	2
AMET:248	Introduction to CNC and Additive Manufacturing	3
MATH:154	Technical Mathematics IV	3
	Social Science Requirement <sup>6</sup>	3
Hours		14

### Summer Semester

	Cooperative Education	
Hours		0

### 2nd Year

#### Fall Semester

AMET:130	Work Measurement & Cost Estimating <sup>1</sup>	3
AMET:211	Manufacturing Operations <sup>1</sup>	3
PHYS:261	Physics for Life Sciences I	4
COMM:263	Professional Communications and Presentations	3
ENGL:222	Technical Report Writing	3
Hours		16

#### Spring Semester

MCET:142	Introduction to Material Technology <sup>2</sup>	3
AMET:201	Robotics & Automated Manufacturing <sup>2</sup>	3
AMET:225	Computer Aided Tool Design <sup>2</sup>	3
AMET:241	Introduction to Quality Assurance	3
EEET:210	Industrial Control Panel Fabrication	2
	Social Science Requirement <sup>7</sup>	3
Hours		17

### 3rd Year

#### Fall Semester

CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
AMET:348	CNC Programming I (Sch. lab) <sup>1</sup>	3
EEET:370	Survey of Electronics I <sup>1</sup>	3
AMET:230	3-D Modeling & Design (Lecture) <sup>1</sup>	3
	Humanities Requirement	3
Hours		16

#### Spring Semester

MATH:255	Technical Calculus I	3
MCET:310	Economics of Technology	3

EEET:242	Machinery & Controls <sup>2</sup>	3
AMET:311	Facilities Planning <sup>2</sup>	3
AMET:332	Management of Technology Based Operations	3
	Arts and Humanities Requirement	3
Hours		18

### 4th Year

#### Fall Semester

MCET:101	Introduction to Mechanical Design <sup>1</sup>	3
MCET:405	Introduction to Industrial Machine Control <sup>1</sup>	3
MCET:370	Plastics Design & Process <sup>1</sup>	3
AMET:448	CNC Programming II <sup>1</sup>	3
AMET:441	Advanced Quality Practices <sup>1</sup>	3
	Fine Arts Requirement	3
Hours		18

#### Spring Semester

AMET:480	Automated Production (Sch. lab) <sup>2</sup>	3
AMET:485	SME Manufacturing Technologist Certification Preparation <sup>2</sup>	2
MCET:347	Production Machinery & Processes <sup>2</sup>	3
	Technical Elective <sup>4</sup>	3
	Technical Elective <sup>4</sup>	3
	Complex Issues Requirement	3
Hours		17
Total Hours		131

<sup>1</sup> Traditionally Fall course.

<sup>2</sup> Traditionally Spring course.

<sup>3</sup> Students completing NTMA Journeyman's Machinist Program receive block credit for these courses. Students who have not completed the entire program or who have completed the program prior to 1/1/96, see an advisor.

<sup>4</sup> Automated Manufacturing Engineering Technology Approved Technical Electives: Availability dependent on enrollment demands and classroom availability.

<sup>5</sup> Course must be part of the Ohio Transfer Module

<sup>6</sup> Students should choose a course that also meets the requirements for the Domestic Diversity requirement.

<sup>7</sup> Students should choose a course that also meets the requirements for the Global Diversity requirement.

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

**You must have a minimum cumulative GPA of a 2.0 to graduate with this degree.**

## Drafting and Computer Drafting, Certificate

### Certificate in Drafting and Computer Drafting (294001C)

The following information has official approval of **The Department of Mechanical Engineering** and **The College of Engineering and Polymer**

**Science**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Drafting and Computer Drafting" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		17
Total Hours		17

## Required Courses

Code	Title	Hours
AMET:140	Computer Aided Drawing	3
AMET:230	3-D Modeling & Design	3
COET:150	Plan Reading	2
MCET:121	Fundamentals of Engineering Drawing	3
SURV:170	Surveying Drafting	3
SURV:105	Introduction to Geographic & Land Information Systems	3
Total Hours		17

Note:

- Students must achieve a grade of C or better in their technical courses.

# Mechanical Engineering Technology, AAS

## Associate of Applied Science in Mechanical Engineering Technology (292001AAS)

More on the Mechanical Engineering Technology programs (<https://www.uakron.edu/engineering/ME/>)

## Program Information

Mechanical Engineering Technology is concerned with the design of products and the machines required to manufacture them. Mechanical technicians are needed in all industries, from steelmaking to consumer products such as tires, cars, and home appliances. Mechanical technicians work along with engineers in design, testing, manufacturing, and servicing of the mechanical components and systems found everywhere in industry. The associate degree holder is well qualified to begin working in the various areas of mechanical technology.

## Career Information

The demand by industry for mechanical technicians is now and will continue to be great. It is estimated that thousands of new mechanical technicians will be required each year. Mechanical technicians find

employment in many areas of the mechanical field; some of the specific career opportunities include:

- Junior or Assistant Designer – Designs machine elements and/or systems.
- Engineering Aid - Assists the mechanical engineer, a good beginning for the inexperienced graduate.
- Laboratory Technician – Primarily responsible for evaluation of product or process diagnosis. May do field testing (tires, cars, etc.). Specifying materials from the design and processing standpoints.
- Customer Service Technician – Installs and maintains equipment on site. May also serve as sales representative in recommending a machine for a particular application.
- Plant Engineer – Establishes maintenance schedules and applies tool and machine design production process.

## Cooperative Education

Co-op work experiences are available on an optional basis in this academic program.

## Bachelor Degree Programs

Upon completion of the Associate of Applied Science in Mechanical Engineering Technology, a student may proceed to the Bachelor of Science in Mechanical Engineering Technology (p. 565) (292104BS).

The following information has official approval of **The Department of Mechanical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
MATH:154	Technical Mathematics IV	3
MCET:100	Survey of Mechanical Engineering Technology <sup>1</sup>	2
MCET:121	Fundamentals of Engineering Drawing (Sch. lab)	3
PHYS:261	Physics for Life Sciences I	4
Hours		15

### Spring Semester

COMM:263	Professional Communications and Presentations	3
MCET:131	Software Applications for Technology (Sch. lab)	1
COET:125	Statics	3
ENGL:222	Technical Report Writing	3
PHYS:262	Physics for Life Sciences II	4
Hours		14

**2nd Year****Fall Semester**

MATH:255	Technical Calculus I	3
AMET:248	Introduction to CNC and Additive Manufacturing	3
MCET:101	Introduction to Mechanical Design (Sch. lab) <sup>1</sup>	3
MCET:243	Kinematics <sup>1</sup>	3
MCET:251	Fluid Power <sup>1</sup>	2
COET:225	Strength of Materials	3
Hours		17

**Spring Semester**

MCET:142	Introduction to Material Technology (Sch. lab) <sup>2</sup>	3
MCET:245	Mechanical Design II (Sch. lab) <sup>2</sup>	5
MCET:249	Applied Thermal Energy I <sup>2</sup>	2
MCET:252	Thermo-Fluids Laboratory <sup>2</sup>	1
PAFS:256 or SOCIO:100 or SOWK:244	Diversity in American Society or Introduction to Sociology or Death & Dying	3
SOCIO:243	Contemporary Global Issues	3
Hours		17
Total Hours		63

<sup>1</sup> Traditionally Fall only (See Program Contact).

<sup>2</sup> Traditionally Spring only (See Program Contact).

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.

## Mechanical Engineering Technology, BS

### Bachelor of Science in Mechanical Engineering Technology (292104BS)

More on the Mechanical Engineering Technology programs (<https://www.uakron.edu/engineering/ME/>)

### Program Information

Mechanical Engineering Technology is concerned with product testing, the design of products, and the machines required to manufacture them. Our students include: recent high school graduates, transfers from other colleges and institutions, and those students currently employed who are looking for a degree in mechanical engineering technology. As our mission statement states: "We provide high quality educational opportunities necessary to assist a diverse student population to achieve its career goals in the field of mechanical engineering technology." The Mechanical Engineering Technology, BS Degree is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

### Program Educational Objectives

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years after graduation. Program educational objectives are based on the needs of the program's

constituencies (i.e., students, alumni, employers of our students, and faculty of the program), including being able to:

1. be successfully employed in a mechanical engineering technology related field capable of earning promotions, professional registration/licensing, certification, other recognition;
2. be effective in the understanding and application of mechanical engineering technology principles;
3. effectively communicate, work, and lead cross functional teams;
4. expand their technical knowledge through professional development, continuing education, or the pursuit of a graduate degree;
5. conduct their work within the accepted standards of professional integrity and ethics; and
6. serve in technical societies and other community service areas.

### Student Outcomes

Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the knowledge, skills, and behaviors that students acquire as they progress through the program, including:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes;
5. an ability to function effectively as a member as well as a leader on technical teams.

### Cooperative Education

Co-op work experiences are available on an optional basis in this academic program.

The following information has official approval of **The Department of Mechanical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade

in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	27
	Required Courses	51
	Discipline Specific Courses	23
	Math and Physical/Natural Science Courses	26
	<b>Total Hours</b>	<b>127</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:255	Technical Calculus I	
PHIL:170	Introduction to Logic	
<i>Speaking: 3 credit hours</i>		
COMM:263	Professional Communications and Presentations	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:222	Technical Report Writing	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
HIST:200	Empires of the Ancient World	
MUSIC:201	Exploring Music: Bach to Rock	
<i>Natural Sciences: 7 credit hours</i>		
PHYS:164	Technical Physics: Heat & Light	
<i>Social Sciences: 6 credit hours</i>		
PAFS:256	Diversity in American Society	
SOCIO:243	Contemporary Global Issues	
<b>Diversity</b>		
Domestic Diversity		
PAFS:256	Diversity in American Society	
Global Diversity		
SOCIO:243	Contemporary Global Issues	
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		

PHIL:241 Technology & Human Values

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## Required Courses

Code	Title	Hours
MCET:100	Survey of Mechanical Engineering Technology <sup>1</sup>	2
MCET:101	Introduction to Mechanical Design (Sch lab.) <sup>1</sup>	3
MCET:121	Fundamentals of Engineering Drawing (Sch lab.)	3
MCET:142	Introduction to Material Technology (Sch lab.) <sup>2</sup>	3
MCET:243	Kinematics (Sch lab.) <sup>1</sup>	3
MCET:245	Mechanical Design II (Sch lab.) <sup>2</sup>	5
MCET:249	Applied Thermal Energy I <sup>2</sup>	2
MCET:251	Fluid Power <sup>1</sup>	2
MCET:252	Thermo-Fluids Laboratory <sup>2</sup>	1
MCET:310	Economics of Technology	3
MCET:344	Dynamics <sup>1</sup>	3
MCET:346	Mechanical Design III (Sch lab.) <sup>2</sup>	4
MCET:347	Production Machinery & Processes <sup>2</sup>	3
MCET:365	Applied Thermal Energy II <sup>1</sup>	3
MCET:370	Plastics Design & Process <sup>1</sup>	3
MCET:402	Mechanical Projects <sup>2</sup>	2
MCET:405	Introduction to Industrial Machine Control (Sch lab.) <sup>1</sup>	3
MCET:470	Plastics Processing & Testing (Sch lab.) <sup>2</sup>	2
MCET:490	Mechanical Engineering Technology Senior Seminar <sup>1</sup>	1
	<b>Total Hours</b>	<b>51</b>

## Discipline Specific Courses

Code	Title	Hours
EEET:242	Machinery & Controls <sup>2</sup>	3
EEET:370	Survey of Electronics I (Sch. lab) <sup>1</sup>	3
AMET:241	Introduction to Quality Assurance (Sch. lab)	3
AMET:248	Introduction to CNC and Additive Manufacturing	3
COET:125	Statics	3
COET:225	Strength of Materials	3
	Technical Electives <sup>3</sup>	5
	<b>Total Hours</b>	<b>23</b>

## Math and Physical/Natural Science Courses

Code	Title	Hours
MATH:154	Technical Mathematics IV	3
MATH:255	Technical Calculus I	3
MATH:356	Technical Calculus II	3
2820:111	Introductory Chemistry	3
2820:112	Introductory & Analytical Chemistry	3
MCET:131	Software Applications for Technology (Sch. lab)	1
MCET:312	Programming for Technologists	2

PHYS:160	Technical Physics: Mechanics	4
PHYS:163	Technical Physics: Electricity & Magnetism	2
PHYS:164	Technical Physics: Heat & Light	2
Total Hours		26

## Technical Electives

Code	Title	Hours
<b>Complete 5 credits</b>		<b>5</b>
MATH:345	Technical Data Analysis	
EEET:121	Introduction to Electronics and Computers	
EEET:237	Digital Circuits	
EEET:238	Microprocessor Applications	
EEET:360	Virtual Instrumentation and Data Acquisition	
AMET:311	Facilities Planning	
AMET:332	Management of Technology Based Operations	
AMET:441	Advanced Quality Practices	
AMET:448	CNC Programming II	
AMET:480	Automated Production	
AMET:130	Work Measurement & Cost Estimating	
AMET:201	Robotics & Automated Manufacturing	
AMET:211	Manufacturing Operations	
AMET:230	3-D Modeling & Design	
MCET:130	Introduction to Hydraulics and Pneumatics	
MCET:290	Special Topics: Mechanical Engineering Technology	
MCET:498	Independent Study in Mechanical Engineering Technology	
SURV:101	Basic Surveying	
COET:462	Mechanical Service Systems	
COET:463	Electrical Service Systems	

## Discipline Specific General Education Courses

Code	Title	Hours
ENGL:111	English Composition I	
ENGL:222	Technical Report Writing	
COMM:263	Professional Communications and Presentations	
PHIL:241	Technology & Human Values	
SOCIO:243	Contemporary Global Issues	
<i>Select one of the following:</i>		
PAFS:256	Diversity in American Society	
SOCIO:100	Introduction to Sociology	
SOWK:244	Death & Dying	
<i>Select one of the following:</i>		
PHIL:101	Introduction to Philosophy	
PHIL:120	Introduction to Ethics	
PHIL:170	Introduction to Logic	
	Arts or Humanities Requirement <sup>5</sup>	
<i>Select one of the following:</i>		
ART:210	Visual Arts Awareness	
MUSIC:201	Exploring Music: Bach to Rock	
DNCE:265	Viewing Dance	

Arts Requirement <sup>5</sup>

Humanities Requirement <sup>5</sup>

- Traditionally Fall course (See Program Contact).
- Traditionally Spring course (See Program Contact).
- Mechanical Engineering Technology Approved Technical Electives: Availability dependent on enrollment demands and classroom availability.
- The student must take both the Introduction and Advanced Corrosion Technology courses to receive the Corrosion Technology Certificate. Other requirements may be required in addition. Please check with the student advisor to be sure.
- Must be a course in the Ohio Transfer 36.

## Recommended Sequence

Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
ENGL:111	English Composition I	3
MATH:154	Technical Mathematics IV	3
MCET:100	Survey of Mechanical Engineering Technology <sup>1</sup>	2
MCET:121	Fundamentals of Engineering Drawing (Sch. lab)	3
PHYS:160	Technical Physics: Mechanics (Sch. lab)	4
Hours		15
<b>Spring Semester</b>		
COMM:263	Professional Communications and Presentations	3
MCET:131	Software Applications for Technology (Sch. lab)	1
COET:125	Statics	3
ENGL:222	Technical Report Writing	3
PHYS:163	Technical Physics: Electricity & Magnetism (Sch. lab)	2
PHYS:164	Technical Physics: Heat & Light (Sch. lab)	2
Hours		14
<b>2nd Year</b>		
<b>Fall Semester</b>		
MATH:255	Technical Calculus I	3
AMET:248	Introduction to CNC and Additive Manufacturing	3
MCET:101	Introduction to Mechanical Design (Sch. lab) <sup>1</sup>	3
MCET:243	Kinematics (Sch. lab) <sup>1</sup>	3
MCET:251	Fluid Power <sup>1</sup>	2
COET:225	Strength of Materials	3
Hours		17
<b>Spring Semester</b>		
SOCIO:243	Contemporary Global Issues	3
MCET:142	Introduction to Material Technology (Sch. lab) <sup>2</sup>	3
MCET:245	Mechanical Design II (Sch. lab) <sup>2</sup>	5
MCET:249	Applied Thermal Energy I <sup>2</sup>	2

MCET:252	Thermo-Fluids Laboratory <sup>2</sup>	1
Select one of the following:		3
PAFS:256	Diversity in American Society	
SOCIO:100	Introduction to Sociology	
SOWK:244	Death & Dying	
Hours		17

**3rd Year****Fall Semester**

MATH:356	Technical Calculus II	3
MCET:312	Programming for Technologists	2
MCET:344	Dynamics <sup>1</sup>	3
2820:111	Introductory Chemistry	3
EEET:370	Survey of Electronics I (Sch. lab) <sup>1</sup>	3
	Technical Elective <sup>3</sup>	2
Hours		16

**Spring Semester**

2820:112	Introductory & Analytical Chemistry	3
EEET:242	Machinery & Controls <sup>2</sup>	3
MCET:346	Mechanical Design III (Sch. lab) <sup>2</sup>	4
MCET:347	Production Machinery & Processes <sup>2</sup>	3
	Technical Elective <sup>3</sup>	3
Select one of the following:		3
PHIL:101	Introduction to Philosophy	
PHIL:120	Introduction to Ethics	
PHIL:170	Introduction to Logic	
Hours		19

**4th Year****Fall Semester**

MCET:310	Economics of Technology	3
MCET:365	Applied Thermal Energy II <sup>1</sup>	3
MCET:370	Plastics Design & Process <sup>1</sup>	3
MCET:405	Introduction to Industrial Machine Control (Sch. lab) <sup>1</sup>	3
MCET:490	Mechanical Engineering Technology Senior Seminar <sup>1</sup>	1
	Humanities Requirement <sup>5</sup>	3
Hours		16

**Spring Semester**

MCET:402	Mechanical Projects <sup>2</sup>	2
MCET:470	Plastics Processing & Testing (Sch. lab) <sup>2</sup>	2
AMET:241	Introduction to Quality Assurance (Sch. lab)	3
PHIL:241	Technology & Human Values	3
Select one of the following:		3
ART:210	Visual Arts Awareness	
MUSIC:201	Exploring Music: Bach to Rock	
DNCE:265	Viewing Dance	
	Arts Requirement <sup>5</sup>	
Hours		13
Total Hours		127

<sup>1</sup> Traditionally Fall course (See Program Contact).<sup>2</sup> Traditionally Spring course (See Program Contact).<sup>3</sup> Mechanical Engineering Technology Approved Technical Electives: Availability dependent on enrollment demands and classroom availability.<sup>4</sup> The student must take both the Introduction and Advanced Corrosion Technology courses to receive the Corrosion Technology Certificate. Other requirements may be required in addition. Please check with the student advisor to be sure.<sup>5</sup> Must be a course in the Ohio Transfer 36.

## Mechanical Engineering, BS

### Bachelor of Science in Mechanical Engineering (460000BS)

The undergraduate mechanical engineering program is designed to provide a student with comprehensive knowledge of the fundamental principles of Mechanical Engineering. This includes fluid-thermal systems and mechanical sciences, and the application of these principles to engineering problems.

The undergraduate curriculum can be divided into four main areas: general education (or Honors) requirements, mathematics and science requirements, engineering requirements, and ME program electives (Design, ME, and Tech Electives).

**Cooperative Education:** The Mechanical Engineering program has an optional cooperative education component. The coop program shows students the relationship between engineering practice and engineering education. The student gets real-world experience in an industry directly related to their studies. At graduation, the typical coop student already has one year of engineering experience. Not only do our students have opportunities nationwide, but we also have a wealth of opportunities right in our own area of northeast Ohio.

**Student Design Teams:** Whether it's rockets, race cars, bicycles, airplanes, or robots, our students compete with engineering schools from across the nation (and in some cases across the world!). The design competitions are sanctioned by professional engineering societies like SAE, the American Society of Mechanical Engineers (ASME), and the American Institute of Aeronautics and Astronautics (AIAA). Students from incoming freshmen to seniors are encouraged to participate.

Mechanical engineers design and analyze physical systems and are employed in a variety of industries in different capacities. Mechanical engineers play important roles in many types of companies, including automotive, petroleum, energy generation and conversion, aerospace, tire, consulting, chemical, electronic, and manufacturing.

The Mechanical Engineering curriculum at The University of Akron is designed to give the student knowledge of fundamental principles of the

1. thermal/fluids stem,
2. structures and motion stem, and
3. controls stem of mechanical engineering, as well as the application of these principles to pertinent problems.

A significant measure of the mechanical engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career that is characterized by continued professional growth.

The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://>



www.abet.org/). The program educational objectives (PEOs) for the Mechanical Engineering program are that, within a few years after graduation, our Mechanical Engineering graduates:

- Practice the mechanical engineering discipline successfully within community accepted standards
- Acquire teamwork and communications skills to develop a successful career in mechanical engineering
- Fulfill professional and ethical responsibilities in the practice of mechanical engineering, including social, environmental and economic considerations
- Engage in professional service, such as participation in professional society and community service
- Engage in life-long learning activities, such as graduate studies or professional workshops
- Develop a professional career in the prevailing market that meets personal goals, objectives and desires

To meet those program educational objectives as well as the curricular requirements specified by the American Society of Mechanical Engineers (ASME) for accreditation, the Mechanical Engineering program identifies student outcomes, which are what students are expected to achieve by the time of graduation. They are:

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

(3) an ability to communicate effectively with a range of audiences

(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

## Cooperative Education

The Bachelor of Science in Mechanical Engineering can be combined with the Cooperative Education, College of Engineering and Polymer Science (p. 451) certificate, for a nominal five-year plan of study that includes four total years of coursework and one full year of relevant work experience. Alternatively, the Bachelor of Science in Mechanical Engineering can be earned without the certificate, with a nominal four-year plan of study.

## Accelerated BS/MS program

The department offers B.S. Mechanical Engineering students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Mechanical Engineering with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of the **Department of Mechanical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	25
	Math and Science Requirements	30
	Mechanical Engineering Tools Requirement	3
	Probability and Statistics Requirement	2
	Economics Requirement	3
	Fundamental Engineering Requirement	15
	Mechanical Engineering Upper Level Requirement	45
	Mechanical Engineering Program Electives	9
	Capstone Design	4
	<b>Total Hours</b>	<b>136</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	

<b>Breadth of Knowledge</b>	<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>	
<i>Natural Sciences: 7 credit hours</i>	
<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
<i>Select one class from one of the following subcategories:</i>	
Complex Issues Facing Society	
Capstone	
<i>Review the General Education Requirements page for detailed course listings.</i>	
<b>Total Hours</b>	<b>34</b>

## Math and Science Requirements

Code	Title	Hours
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
<b>Total Hours</b>		<b>30</b>

## Mechanical Engineering Tools Requirement

Code	Title	Hours
MECE:165	Tools for Mechanical Engineering	3
<b>Total Hours</b>		<b>3</b>

## Probability and Statistics Requirement

Code	Title	Hours
STAT:401	Probability and Statistics for Engineers	2-4
or STAT:461	Applied Statistics	
<b>Total Hours</b>		<b>2-4</b>

## Economics Requirement

Code	Title	Hours
ECON:244	Introduction to Economic Analysis <sup>1</sup>	3
<b>Total Hours</b>		<b>3</b>

<sup>1</sup> While ECON:244 is preferred, students who have both taken both ECON:200 Principles of Microeconomics and ECON:201 Principles of Macroeconomics also meet the Economics requirement for the degree.

## Fundamental Engineering Requirement

Code	Title	Hours
CIVE:201	Statics	3
CIVE:202	Introduction to Mechanics of Solids	3
MECE:203	Dynamics	3
MECE:260	Engineering Analysis I	2
ELEN:307	Basic Electrical Engineering	4
<b>Total Hours</b>		<b>15</b>

## Mechanical Engineering Upper Level Requirement

Code	Title	Hours
MECE:300	Thermodynamics I	3
MECE:301	Thermodynamics II	2
MECE:310	Fluid Mechanics I	2
MECE:311	Fluid Mechanics II	3
MECE:315	Heat Transfer	3
MECE:321	Kinematics of Machines	2
MECE:336	Analysis of Mechanical Components	3
MECE:337	Design of Mechanical Components	3
MECE:340	Systems Dynamics & Response	3
MECE:360	Engineering Analysis II	2
MECE:380	Introduction to Materials Science and Engineering	2
MECE:400	Thermal System Components	3
MECE:402	Senior Seminar	1
MECE:431	Fundamentals of Mechanical Vibrations	3
MECE:441	Control Systems Design	3
MECE:460	Concepts of Design	3
MECE:483	Measurements Laboratory	2
MECE:484	Mechanical Engineering Laboratory	2
<b>Total Hours</b>		<b>45</b>

## Mechanical Engineering Program Electives

Code	Title	Hours
	Design Elective	3
	ME Elective	3
	Technical Elective	3
<b>Total Hours</b>		<b>9</b>

## Capstone Design

Code	Title	Hours
MECE:461	ME Senior Design Project I	2
MECE:471	ME Senior Design Project II	2
or MECE:497	Honors Project in Mechanical Engineering	
<b>Total Hours</b>		<b>4</b>

## Recommended Sequence

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2,3</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4
MECE:165	Tools for Mechanical Engineering	3
Hours		14

### Spring Semester

CHEM:153	Principles of Chemistry II <sup>1</sup>	3
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
Hours		16

### 2nd Year

#### Fall Semester

ECON:244	Introduction to Economic Analysis	3
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
Hours		17

#### Spring Semester

MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:202	Introduction to Mechanics of Solids	3
MECE:203	Dynamics <sup>1</sup>	3
MECE:260	Engineering Analysis I	2
Hours		15

#### Summer Semester

GGEN:200	CEPS Internship <sup>7</sup>	0
Hours		0

### 3rd Year

#### Fall Semester

STAT:401	Probability and Statistics for Engineers	2
MECE:300	Thermodynamics I	3
MECE:310	Fluid Mechanics I	2
MECE:321	Kinematics of Machines	2
MECE:336	Analysis of Mechanical Components	3
MECE:360	Engineering Analysis II	2
Hours		14

#### Spring Semester

GGEN:301	Cooperative Education Work Period <sup>7</sup>	0
Hours		0

#### Summer Semester

MECE:311	Fluid Mechanics II	3
MECE:380	Introduction to Materials Science and Engineering	2

MECE:431	Fundamentals of Mechanical Vibrations	3
Hours		8

### 4th Year

#### Fall Semester

GGEN:302	Cooperative Education Work Period <sup>7</sup>	0
Hours		0

#### Spring Semester

MECE:301	Thermodynamics II	2
MECE:315	Heat Transfer	3
MECE:337	Design of Mechanical Components	3
MECE:340	Systems Dynamics & Response	3
MECE:483	Measurements Laboratory	2
General Education or Honors Distribution		3
Hours		16

#### Summer Semester

GGEN:403	Cooperative Education Work Period <sup>7</sup>	0
Hours		0

### 5th Year

#### Fall Semester

MECE:400	Thermal System Components	3
MECE:402	Senior Seminar	1
MECE:441	Control Systems Design	3
MECE:460	Concepts of Design	3
MECE:461	ME Senior Design Project I	2
MECE:484	Mechanical Engineering Laboratory	2
	Mechanical Engineering Elective <sup>5</sup>	3
Hours		17

#### Spring Semester

ELEN:307	Basic Electrical Engineering	4
MECE:471	ME Senior Design Project II <sup>6</sup>	2
	Mechanical Engineering Elective <sup>5</sup>	3
	Mechanical Engineering Elective <sup>5</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	General Electives	4
Hours		19
Total Hours		136

- <sup>1</sup> Honors sections may be available; check the schedule of classes.
- <sup>2</sup> The Mechanical Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.
- <sup>3</sup> Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
- <sup>4</sup> Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.
- <sup>5</sup> Mechanical Engineering Electives must include three credits Mechanical Engineering design elective, three credits Technical elective, and three credits Mechanical Engineering technical elective.

- <sup>6</sup> Students following the Honors Track will complete MECE:497 Honors Project in Mechanical Engineering instead of MECE:471.
- <sup>7</sup> Students not earning the CEPS Cooperative Education certificate can complete their B.S. program in four years, by taking the classes shown in the fourth and fifth year one year earlier than shown.

## Mechanical Engineering, Co-op Option, BS

### Bachelor of Science in Mechanical Engineering with Co-op (460005BS)

This option of the undergraduate program in Mechanical Engineering includes a cooperative education component.

Mechanical engineers design and analyze physical systems and are employed in a variety of industries in different capacities. Mechanical engineers play important roles in many types of companies, including automotive, petroleum, energy generation and conversion, aerospace, tire, consulting, chemical, electronic, and manufacturing.

The Mechanical Engineering curriculum at The University of Akron is designed to give the student knowledge of fundamental principles of the

1. thermal/fluids stem,
2. structures and motion stem, and
3. controls stem of mechanical engineering, as well as the application of these principles to pertinent problems.

A significant measure of the mechanical engineering education is the degree to which it has prepared the graduate to pursue a productive engineering career that is characterized by continued professional growth.

The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org) (<http://www.abet.org/>). The program educational objectives (PEOs) for the Mechanical Engineering program are that, within a few years after graduation, our Mechanical Engineering graduates:

- Practice the mechanical engineering discipline successfully within community accepted standards
- Acquire teamwork and communications skills to develop a successful career in mechanical engineering
- Fulfill professional and ethical responsibilities in the practice of mechanical engineering, including social, environmental and economic considerations
- Engage in professional service, such as participation in professional society and community service
- Engage in life-long learning activities, such as graduate studies or professional workshops
- Develop a professional career in the prevailing market that meets personal goals, objectives and desires

To meet those program educational objectives as well as the curricular requirements specified by the American Society of Mechanical Engineers (ASME) for accreditation, the Mechanical Engineering program identifies student outcomes, which are what students are expected to achieve by the time of graduation. They are:

(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

(3) an ability to communicate effectively with a range of audiences

(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

## Accelerated BS/MS program

The department offers B.S. Mechanical Engineering students at The University of Akron a BS/MS program that allows them to earn the Master of Science in Mechanical Engineering with one additional year of study. Applications are accepted in the Spring before the senior year.

The following information has official approval of the **Department of Mechanical Engineering and The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### 1st Year

Fall Semester		Hours
CHEM:151	Principles of Chemistry I <sup>1</sup>	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I <sup>1,2,3</sup>	3
MATH:221	Analytic Geometry-Calculus I <sup>1</sup>	4

MECE:165	Tools for Mechanical Engineering	3
	Hours	14
<b>Spring Semester</b>		
CHEM:153	Principles of Chemistry II <sup>1</sup>	3
MATH:222	Analytic Geometry-Calculus II <sup>1</sup>	4
	Second Writing Course <sup>1,3</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	16
<b>2nd Year</b>		
<b>Fall Semester</b>		
ECON:244	Introduction to Economic Analysis	3
MATH:223	Analytic Geometry-Calculus III <sup>1</sup>	4
PHYS:291	Elementary Classical Physics I <sup>1</sup>	4
CIVE:201	Statics <sup>1</sup>	3
	General Education or Honors Distribution <sup>4</sup>	3
	Hours	17
<b>Spring Semester</b>		
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:292	Elementary Classical Physics II <sup>1</sup>	4
CIVE:202	Introduction to Mechanics of Solids	3
MECE:203	Dynamics <sup>1</sup>	3
MECE:260	Engineering Analysis I	2
	Hours	15
<b>Summer Semester</b>		
GNEN:300	Cooperative Education Work Period (Possible)	0
	Hours	0
<b>3rd Year</b>		
<b>Fall Semester</b>		
STAT:401	Probability and Statistics for Engineers	2
MECE:300	Thermodynamics I	3
MECE:310	Fluid Mechanics I	2
MECE:321	Kinematics of Machines	2
MECE:336	Analysis of Mechanical Components	3
MECE:360	Engineering Analysis II	2
	Hours	14
<b>Spring Semester</b>		
GNEN:301	Cooperative Education Work Period	0
	Hours	0
<b>Summer Semester</b>		
MECE:311	Fluid Mechanics II	3
MECE:380	Introduction to Materials Science and Engineering	2
MECE:431	Fundamentals of Mechanical Vibrations	3
	Hours	8
<b>4th Year</b>		
<b>Fall Semester</b>		
GNEN:302	Cooperative Education Work Period	0
	Hours	0

<b>Spring Semester</b>		
ELEN:307	Basic Electrical Engineering	4
MECE:301	Thermodynamics II	2
MECE:315	Heat Transfer	3
MECE:337	Design of Mechanical Components	3
MECE:340	Systems Dynamics & Response	3
MECE:483	Measurements Laboratory	2
	Hours	17
<b>Summer Semester</b>		
GNEN:403	Cooperative Education Work Period	0
	Hours	0
<b>5th Year</b>		
<b>Fall Semester</b>		
MECE:400	Thermal System Components	3
MECE:402	Senior Seminar	1
MECE:441	Control Systems Design	3
MECE:460	Concepts of Design	3
MECE:461	ME Senior Design Project I (Non Honors Track) <sup>6</sup>	2
MECE:484	Mechanical Engineering Laboratory	2
	Mechanical Engineering Elective <sup>5</sup>	3
	Hours	17
<b>Spring Semester</b>		
MECE:471	ME Senior Design Project II <sup>7</sup>	2
	Mechanical Engineering Elective <sup>5</sup>	3
	Mechanical Engineering Elective <sup>5</sup>	3
	General Education Course (Non Honors Track) <sup>4,8</sup>	3
	General Education Course (Non Honors Track) <sup>4,8</sup>	3
	General Electives	4
	Hours	18
	Total Hours	136

- Honors sections may be available; check the schedule of classes.
- The Mechanical Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.
- Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.
- Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.
- Mechanical Engineering Electives must include three credits Mechanical Engineering design elective, three credits Technical elective, and three credits Mechanical Engineering technical elective.
- Students following the Honors Track will complete part of the Honors Distribution instead of MECE:461.
- Students following the Honors Track will complete the 4-credit Honors Project instead of MECE:471.

<sup>8</sup> Students following the Honors Track will complete part of the Honors Distribution instead of General Education. Course credits hours vary between General Education and Honors Distribution.

## Polymer Science and Polymer Engineering

An undergraduate minor in Polymer Science and Polymer Engineering is available for undergraduate science and engineering majors. Research experiences for one to three credits per semester are also offered, starting at the freshman level.

- Polymer Science and Polymer Engineering, BS (p. 576)
- Polymer Science and Polymer Engineering, Minor (p. 579)

## Interdisciplinary - Polymer Science & Engineering (PSPE)

### PSPE:100 Introduction to Polymers (3 Credits)

Polymers are ubiquitous in modern society. They are in everything from everyday products (tires, paint, and milk jugs) to specialty items (bullet proof vests, lithium batteries, and graphite shaft golf clubs) to the human body (DNA and proteins). This undergraduate course introduces students to unique properties of polymers starting from their early history and discovery to modern day efforts in advanced materials, recycling and sustainability. (Formerly 9821:100)

### PSPE:201 Introduction to Polymer Science (3 Credits)

Prerequisites: CHEM 151 and MATH 221. Introduction to the field of polymer science including molecular weight distributions, polymerization, chain statistics, polymer mixtures, rubber elasticity, polymer glasses, semi-crystalline polymers and viscoelasticity. (Formerly 9821:201)

### PSPE:202 Introduction to Polymer Engineering (3 Credits)

Prerequisites: MATH 222 and PHYS 291. Introduction to the field of polymer engineering including classification of polymer materials, mechanical properties, fundamentals of polymer melt flow, polymer processing operations and compounding. (Formerly 9821:202)

### PSPE:281 Polymer Science for Engineers (2 Credits)

Prerequisites: CHEM 151 and CHEM 152. Chemical bonds and structure of organic molecules, polymer chain structure, amorphous and crystalline morphology and structural characterization, polymerization and copolymerization, experimental demonstrations, typical solid-state and flow properties. (Formerly 9821:281)

### PSPE:301 Polymer Materials Science and Engineering (3 Credits)

Corequisites: CHEM 313 or PHYS 340 or MECE 300 or permission. Materials science and engineering of polymers. Topics covered are the phase behavior and morphology of polymer solutions and blends, glassy polymers, polymer crystallization, materials characterization and multi-component polymer materials. (Formerly 9821:301)

### PSPE:310 Impacts of Polymers on Modern Life (3 Credits)

Prerequisite: High school chemistry of equivalent. Qualitative introduction to plastics and polymers, intended for non-science majors. Course explores the history and use of polymers in commercial products including food, cosmetics, and medicine. The course will also explore the socioeconomic trade-offs in the use of polymers, where quality of life, food safety, lifesaving technologies are weighed against environmental and health impacts. (Formerly 9821:310)

**Gen Ed:** - Complex Issues Facing Society

### PSPE:381 Polymer Morphology for Engineers (3 Credits)

Prerequisites: PSPE 281, CHEM 151, and PHYS 292. Fundamental understanding of solid structure, crystallography and morphology, processed polymers, co-polymers and their blends. (Formerly 9821:381)

### PSPE:411 Special Topics in Polymer Science and Polymer Engineering (3 Credits)

Prerequisite: Permission of instructor. Special topics in polymer science and polymer engineering is an elective course focused on advancing students' knowledge in specialized topics in polymers. (Formerly 9821:411)

### PSPE:605 Polymer Physical Chemistry (4 Credits)

Fundamentals of polymer chain characteristics, common polymerization types, and overview of polymer physical chemical behavior. (Formerly 9801:605)

### PSPE:615 Polymer Characterization (4 Credits)

Prerequisite: PSPE 605. Introduction to widely used polymer characterization techniques (3cr) with accompanying experiments (1cr). (Formerly 9801:615)

### PSPE:635 Rheology, Processing and Evaluation of Polymeric Materials (4 Credits)

Prerequisite: PSPE 605. Introduction to several types of polymer processing and several tests of properties (3cr) with accompanying lab environments (1cr). (Formerly 9801:635)

### PSPE:645 Research, Problem Solving and Communication of Technical Information (3 Credits)

Prerequisite: PSPE 605. Introduction to the research and development enterprise, problem solving, and the communication of technical information to various audiences. (Formerly 9801:645)

### PSPE:665 Emerging Markets & Technologies (3 Credits)

Prerequisites: PSPE 605, PSPE 615, and PSPE 635. Overview of emerging markets and technologies involving polymers as well as analyses of these technologies with respect to life cycle, carbon footprint, and sustainability. (Formerly 9801:665)

## Polymer Engineering (PLYE)

### PLYE:101 Tools for Polymer Science and Polymer Engineering (2 Credits)

This is an introductory course for Polymer Science and Polymer Engineering (PSPE) undergraduate major. Students will learn the use of spreadsheet generating software for data analysis and graphing and MATLAB to perform mathematical computation. Engineering drawing and graphics using SOLIDWORKS software and elements of engineering ethics will be covered in this course. (Formerly 9841:101)

### PLYE:321 Polymer Fluid Mechanics (3 Credits)

Prerequisites: CHEE 321, senior standing, and full admission to an engineering major in the College of Engineering and Polymer Science. This undergraduate course introduces the rheological properties and flow characteristics of polymer fluid systems. It covers non-Newtonian viscosity of polymer melts and solutions, viscoelasticity of polymer melts and solids, measurement methods, and interpretation of rheological properties. (Formerly 9841:321)

**PLYE:324 Quantitative Polymer Analysis (3 Credits)**

Prerequisites: MATH 223, MATH 335, and full admission to an engineering major in the College of Engineering and Polymer Science.

This is an undergraduate course on quantitative analysis problems in polymer engineering. This course will allow the students to learn and use necessary analytical methods in designing and optimizing processes in the field of the polymer. The solution to the linear and nonlinear first and higher-order differential equations are provided by analytical methods. Students will be exposed to various concepts in linear algebra and will use dimensional analysis tools, such as the Buckingham theorem to identify key parameters that govern the physics of the problem. Furthermore, different techniques, such as separation of variables, similarity transformation, and Fourier transform, to solve partial differential equations will be covered. (Formerly 9841:324)

**PLYE:330 Polymer Thermodynamics (3 Credits)**

Prerequisites: MATH 223 and full admission to an engineering major in the College of Engineering and Polymer Science. This undergraduate course provides an introduction to thermodynamics including the fundamental laws, equations of state, phase equilibria, binary blends, and their corresponding phase diagrams. Polymeric materials are emphasized in the implementation of thermodynamics. (Formerly 9841:330)

**PLYE:333 Polymer Thermodynamics Laboratory (2 Credits)**

Prerequisite: Full admission to an engineering major in the College of Engineering and Polymer Science. Corequisite: PLYE 330. Laboratory course providing hands-on experiments in polymer thermodynamics. (Formerly 9841:333)

**PLYE:422 Polymer Processing (3 Credits)**

Prerequisite: Full admission to an engineering major in the College of Engineering and Polymer Science. Pre/Corequisite: CHEE 321 or MECE 310. Polymer processing technology. Basic studies of flow in extrusion, molding, and other processing methods. (Formerly 9841:422)

**PLYE:423 Injection Molding and Mold Design (3 Credits)**

Prerequisites: PLYE 321, PLYE 422, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This course presents an in-depth analysis of injection molding processes for manufacturing of an array of polymer-based articles used in consumer, automotive, and aerospace industries. The knowledge garnered in PLYE 321 Polymer Fluid Mechanics and PLYE 422 Polymer Processing will form the basis for elaborating the influence of polymer melt flow in the mold, heat transfer out of the mold, polymer chain orientation, and polymer chain crystallization on the quality of injection molded products and their properties. (Formerly 9841:423)

**PLYE:424 Additive Manufacturing with Polymers (3 Credits)**

Prerequisites: PLYE 321, PLYE 422, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This course presents the essence of additive manufacturing technology of polymers to keep senior undergraduate students abreast on the paradigm shift in manufacturing of products that vary widely in dimensions, e.g., from a few millimeters to almost a meter with minimal wastes. Cases of additive manufacturing with thermoplastic and thermosetting polymers are discussed. Product designs, machines, and materials selection are covered. (Formerly 9841:424)

**PLYE:425 Introduction to Blending & Compounding Polymers (3 Credits)**

Prerequisites: CHEE 321 or MECE 310 or permission. Nature of polymer blends and compounds and their applications. Preparation and technology using batch and continuous mixers, mixing mechanisms. (Formerly 9841:425)

**PLYE:427 Mold Design (3 Credits)**

Prerequisites: CHEE 321 or MECE 310 or permission. Molding methods to manufacture polymeric products. Machinery, materials, molds, equipment, computer-aided design. (Formerly 9841:427)

**PLYE:450 Engineering Properties of Polymers (3 Credits)**

Prerequisites: CHEE 408 or CIVE 202 or PSPE 301. Mechanical behavior of solid polymers including elastic and plastic deformation, viscoelasticity, fatigue and failure. (Formerly 9841:450)

**PLYE:451 Polymer Engineering Laboratory (3 Credits)**

Prerequisites: PLYE 321, PLYE 422, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This course teaches students how to conduct laboratory experiments on rheological characterization of polymer melts, rubber and plastics extrusion, extrudate swell, injection and compression molding, 3-D printing, and impact and tensile testing. (Formerly 9841:451)

**PLYE:496 Senior Design Project I (3 Credits)**

Prerequisites: PLYE 324, PLYE 330, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. Corequisite: PLYE 422. This is a design course in which the students will be actively involved in implementing design principles to synthesize new materials, to evaluate the performance of polymer materials, to design a processing scheme, or manufacture polymer products. The students will acquire skills in identification and ranking of factors, identification of materials systems, development of design of experiments, and evaluation of factors. The learning outcomes will be documented in detailed project reports. (Formerly 9841:496)

**PLYE:497 Honors Project (3 Credits)**

Prerequisites: Senior standing in the Honors Program and full admission to an engineering major in the College of Engineering and Polymer Science. This is a design course in which the students will be actively involved in implementing design principles to synthesize new materials, to evaluate the performance of polymer materials, to design a processing scheme, or manufacture polymer products. The students will acquire skills in identification and ranking of factors, identification of materials systems, development of design of experiments, and evaluation of factors. The learning outcomes will be documented in detailed project reports. (Formerly 9841:497)

**PLYE:498 Research Problems in Polymer Engineering (1-9 Credits)**

Prerequisite: Permission of Department Chair. Faculty-supervised undergraduate research problems in polymer engineering culminating in a written report. (Formerly 9841:498)

**PLYE:499 Senior Design Project II (3 Credits)**

Prerequisites: PLYE 321, PLYE 496, PLYS 405, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This is a capstone course in which the students demonstrate mastery of the learning outcomes of this undergraduate degree program by completing challenging projects that have societal value. (Formerly 9841:499)

**Gen Ed:** - Capstone

## Polymer Science (PLYS)

**PLYS:265 Organic Polymer Chemistry Laboratory (2 Credits)**

Prerequisites: CHEM 153 and CHEM 152. Pre/Corequisite: CHEM 263. This undergraduate course provides an introduction to the lab techniques essential to organic chemistry through the context of polymer science. Techniques including extraction, chromatography, crystallization, and structure analysis are covered. (Formerly 9871:265)

**PLYS:313 Physics of Living Systems (3 Credits)**

Introduction to the interdisciplinary study of biological systems through the lens of the physical sciences. Learn how discovery-driven research between biology and physics leads to biomimetic advances and applications. (Formerly 9871:313)

**PLYS:340 Polymer Characterization Fundamentals (3 Credits)**

Prerequisites: PSPE 201 and PLYE 330. Pre/Corequisite: PLYS 404. This undergraduate course provides an understanding of the most common methods of characterization of polymer molecular structure, solid morphology, and physical properties. (Formerly 9871:340)

**PLYS:350 Sustainable Polymers (3 Credits)**

Pre/Corequisite: CHEM 263. This undergraduate course introduces students to sustainable plastic technologies, challenges, and the principals of the circular economy. Students will be able to understand the how different kinds of plastics are recovered, sorted, and recycled (or not). Topics covered include polymer recycling, composting, bio-based plastics, and life cycle analysis. (Formerly 9871:350)

**Gen Ed:** - Complex Issues Facing Society

**PLYS:401 Introduction to Elastomers (3 Credits)**

Prerequisites: CHEM 314 (or equivalent) or permission. An introduction to the science and technology of elastomeric materials and gels, including hydrogels. Lecture and laboratory. (Formerly 9871:401)

**PLYS:402 Introduction to Plastics (3 Credits)**

Prerequisite: CHEM 314 (or equivalent) or permission. An introduction to the science and technology of plastic materials. Lecture and laboratory. (Formerly 9871:402)

**PLYS:403 Polymer Chemistry (3 Credits)**

Prerequisites: CHEM 151, CHEM 153, and CHEM 263, or permission. Corequisite: PLYE 330. This undergraduate course provides the fundamental bases for understanding and comprehending the basic principles associated with the synthesis of polymers using a number of traditional and contemporary polymerization techniques with an emphasis on the mechanisms, kinetics, stereochemistry and resulting properties of the polymers. Students are expected to have a strong foundation in mathematics, physics and chemistry. (Formerly 9871:403)

**PLYS:404 Polymer Physics (3 Credits)**

Prerequisites: MATH 222 and PHYS 291. Advanced overview of polymer physics including scaling theories, chain dynamics, rubber elasticity, glassy polymers and crystallization. (Formerly 9871:404)

**PLYS:405 Polymer Science Laboratory (3 Credits)**

Prerequisites: CHEE 408 or PSPE 301 or PLYS 403 or permission. Laboratory course with experiments on the synthesis and characterization of polymers. (Formerly 9871:405)

**PLYS:407 Polymer Science (4 Credits)**

Prerequisite: CHEM 314 or PHYS 301 or permission. Principles of polymerization processes and relationships between molecular structures and physical behavior of polymers. Molecular weight distributions of macromolecules discussed and methods of determining molecular weights utilized. (Formerly 9871:407)

**PLYS:460 Polymeric Biomaterials (3 Credits)**

Prerequisites: PLYS 403 and junior or greater standing. Pre/Corequisites: PLYS 340 and PLYS 404. This course will teach students the fundamentals of polymeric biomaterials. The course will cover the synthesis, characterization, processing and applications of polymeric biomaterials in medicine. (Formerly 9871:460)

**PLYS:497 Honors Project in Polymer Science (1-3 Credits)**

Prerequisites: Sophomore, junior, or senior standing in Honors College and permission of honors preceptor in the home department. Independent research leading to completion of honors thesis under guidance of project adviser. May be repeated for a total of 10 credits. (Formerly 9871:497)

**PLYS:499 Research Problems in Polymer Science (1-9 Credits)**

Prerequisite: Permission. Faculty-supervised undergraduate research problems in polymer science, culminating in a written report. (Formerly 9871:499)

## Polymer Science and Polymer Engineering, BS

### Bachelor of Science in Polymer Science and Polymer Engineering (987001BS)

Polymer Science and Engineering is a versatile field of study. Polymers are used in industries ranging from aerospace to medicine, plastics, and rubber. Polymer scientists and engineers work at the intersection of chemistry, physics, biology and engineering to develop material solutions to some of the world's most challenging problems. They invent new materials, optimize processes, and model the physical behavior of macromolecules.

The undergraduate program in Polymer Science and Polymer Engineering teaches students fundamental problem-solving skills, analytical techniques and design, and provides hands-on laboratory experience. The curriculum builds a strong foundation in polymer science, polymer physics, and polymer engineering with opportunities to specialize in sustainability, processing, or biomaterials.

Akron is the "Rubber Capital of the World" and has a more than a 100-year history in the development of rubber, tires, and other polymeric materials.

Students in Polymer Science and Polymer Engineering benefit from industrial collaborations with local polymer-focused companies, state-of-the-art processing facilities, and a wealth of research opportunities. Students interested in technical solutions to sustainability, materials science, processing, soft-matter physics, and biomaterials will find this an exciting program.

## Requirements for Admission

All students who meet the minimum requirements for admittance into The University of Akron and intend to major in engineering or engineering technology are accepted into the College of Engineering and Polymer Science and welcome to begin study towards their intended major. Students must show success in key classes early in the program curriculum before they gain full admission to the program and approval to take classes in the third year of the curriculum and beyond.

The following information has official approval of **The School of Polymer Science & Polymer Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites,*



among others. The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		15
Required General Education Courses		9
Math and Science Requirements		33
Required Courses in Major		60
Electives		9
Total Hours		126

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Required General Education Courses

Code	Title	Hours
<b>Specific courses that must be taken for the speaking and writing General Education requirements</b>		
ENGL:111	English Composition I	3
ENGL:222	Technical Report Writing	3
<b>And one of the following two courses to fulfill the requirement in oral communication</b>		
COMM:105	Introduction to Public Speaking	3

or COMM:106 Effective Oral Communication

Total Hours 9

## Math and Science Requirements

Code	Title	Hours
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
MATH:223	Analytic Geometry-Calculus III	4
MATH:335	Introduction to Ordinary Differential Equations	3
PHYS:291	Elementary Classical Physics I	4
PHYS:292	Elementary Classical Physics II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:263	Organic Chemistry Lecture I	3
Total Hours		33

## Required Courses in Major

Code	Title	Hours
PSPE:100	Introduction to Polymers	3
PSPE:201	Introduction to Polymer Science	3
PSPE:202	Introduction to Polymer Engineering	3
PLYS:265	Organic Polymer Chemistry Laboratory	2
PLYS:340	Polymer Characterization Fundamentals	3
PLYS:403	Polymer Chemistry	3
PLYS:404	Polymer Physics	3
PLYS:405	Polymer Science Laboratory	3
PLYE:101	Tools for Polymer Science and Polymer Engineering	2
PLYE:321	Polymer Fluid Mechanics	3
PLYE:324	Quantitative Polymer Analysis	3
PLYE:330	Polymer Thermodynamics	3
PLYE:333	Polymer Thermodynamics Laboratory	2
PLYE:451	Polymer Engineering Laboratory	3
PLYE:422	Polymer Processing	3
PLYE:496	Senior Design Project I	3
PLYE:499	Senior Design Project II	3
CIVE:201	Statics	3
CHEE:121	Chemical Engineering Computations	2
or CORE:105	Corrosion Engineering Computations	
CHEE:200	Material & Energy Balances	4
CHEE:321	Transport Phenomena	3
Total Hours		60

## Electives

Code	Title	Hours
<b>9 credits of polymer and technical electives are required. At least 3 of these 9 credits must be from polymer electives.</b>		
Polymer Electives		
PSPE:411	Special Topics in Polymer Science and Polymer Engineering	3
PLYE:423	Injection Molding and Mold Design	3

PLYE:424	Additive Manufacturing with Polymers
PLYE:425	Introduction to Blending & Compounding Polymers
PLYE:450	Engineering Properties of Polymers
PLYE:497	Honors Project
PLYE:498	Research Problems in Polymer Engineering
PLYS:350	Sustainable Polymers
PLYS:460	Polymeric Biomaterials
PLYS:497	Honors Project in Polymer Science
PLYS:499	Research Problems in Polymer Science
Allowed Technical Electives	
CHEM:264	Organic Chemistry Lecture II
CHEM:154	Qualitative Analysis
ECON:244	Introduction to Economic Analysis
MATH:312	Linear Algebra
STAT:401	Probability and Statistics for Engineers
CPSC:200	Programming for Data Science
CPSC:209	Computer Science I
CIVE:202	Introduction to Mechanics of Solids
CIVE:321	Introduction to Environmental Engineering
ELEN:231	Circuits I
& ELEN:230	and Circuits I Laboratory
ELEN:307	Basic Electrical Engineering
BMEN:300	Biomaterials
BMEN:440	Advanced Biomaterials
<i>For no specialization, the electives taken do not need to include specific electives.</i>	
<i>For a specialization in Sustainability the electives taken must include the following:</i>	
PLYS:350	Sustainable Polymers
PSPE:411	Special Topics in Polymer Science and Polymer Engineering
CIVE:321	Introduction to Environmental Engineering
<i>For a specialization in Processing the electives taken must include the following:</i>	
PLYE:423	Injection Molding and Mold Design
PLYE:424	Additive Manufacturing with Polymers
PLYE:425	Introduction to Blending & Compounding Polymers
<i>For a specialization in Biomaterials the electives taken must include the following:</i>	
CIVE:202	Introduction to Mechanics of Solids
BMEN:300	Biomaterials
PLYS:460	Polymeric Biomaterials
Total Hours	9

## Recommended Sequence

### 1st Year

Fall Semester		Hours
MATH:221	Analytic Geometry-Calculus I	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
ENGL:111	English Composition I	3
PSPE:100	Introduction to Polymers	3

PLYE:101	Tools for Polymer Science and Polymer Engineering	2
Hours		16

### Spring Semester

MATH:222	Analytic Geometry-Calculus II	4
CHEM:153	Principles of Chemistry II	3
ENGL:222	Technical Report Writing	3
Social Sciences Requirement		3
Speaking Requirement		3
Hours		16

### 2nd Year

#### Fall Semester

PHYS:291	Elementary Classical Physics I	4
CHEM:263	Organic Chemistry Lecture I	3
CIVE:201	Statics	3
PSPE:201	Introduction to Polymer Science	3
MATH:223	Analytic Geometry-Calculus III	4
Hours		17

#### Spring Semester

PHYS:292	Elementary Classical Physics II	4
PLYS:265	Organic Polymer Chemistry Laboratory	2
PSPE:202	Introduction to Polymer Engineering	3
MATH:335	Introduction to Ordinary Differential Equations	3
CHEE:121	Chemical Engineering Computations	2
Select one of the following:		0-3
Social Science Requirement (For Sustainability Specialization)		
CIVE:202	Introduction to Mechanics of Solids (For Biomaterials Specialization)	
No Course (For Processing Specialization or No Specialization)		
Hours		14-17

### 3rd Year

#### Fall Semester

PLYE:330	Polymer Thermodynamics	3
CHEE:200	Material & Energy Balances	4
PLYS:403	Polymer Chemistry	3
PLYE:333	Polymer Thermodynamics Laboratory	2
PLYE:324	Quantitative Polymer Analysis	3
Hours		15

#### Spring Semester

CHEE:321	Transport Phenomena	3
PLYS:404	Polymer Physics	3
PLYS:340	Polymer Characterization Fundamentals	3
Arts/Humanities Requirement		3
Select one of following:		3
PSPE:411	Special Topics in Polymer Science and Polymer Engineering (For Sustainability Specialization)	
Art/Humanities Requirement (For Processing Specialization)		

BMEN:300	Biomaterials (For Biomaterials Specialization)	
	Social Science Requirement (For No Specialization)	
Select one of the following:		3
PLYS:350	Sustainable Polymers (For Sustainability Specialization)	
PLYS:460	Polymeric Biomaterials (For Biomaterials Specialization)	
	Social Science Requirement (For Processing Specialization)	
	Technical Elective (For No Specialization)	

Hours	18
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#### 4th Year

##### Fall Semester

PLYE:496	Senior Design Project I	3
PLYE:321	Polymer Fluid Mechanics	3
PLYE:422	Polymer Processing	3
PLYS:405	Polymer Science Laboratory	3
Select one of the following:		3

	Arts/Humanities Requirement (For Sustainability Specialization or No Specialization)	
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PLYE:425	Introduction to Blending & Compounding Polymers (For Processing Specialization)	
	Social Science Requirement (For Biomaterials Specialization)	
Hours	15	

##### Spring Semester

PLYE:499	Senior Design Project II	3
PLYE:451	Polymer Engineering Laboratory	3
	Art/Humanities Requirement	3
Select one of the following three choices:		3-0

	No Course (For Sustainability or Biomaterials Specialization)	
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PLYE:423	Injection Molding and Mold Design (For Processing Specialization)	
	Technical Elective (For No Specialization)	

Select one of the following:		3
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CIVE:321	Introduction to Environmental Engineering (For Sustainability Specialization)	
PLYE:424	Additive Manufacturing with Polymers (For Processing Specialization)	
	Arts/Humanities Requirement (For Biomaterials Specialization)	
	Polymer Elective (For No Specialization)	

Hours	15-12
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Total Hours	126
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## Polymer Science and Polymer Engineering, Minor

### Minor in Polymer Science and Polymer Engineering (982100M)

This minor consists of a three course core curriculum covering the fundamentals of the field followed by three electives allowing the student to tailor their study in Polymer Science and Polymer Engineering. One elective is a practical experience as either a research experience or laboratory course. The other two electives are upper level courses in polymer science and polymer engineering.

A Minor in Polymer Science and Polymer Engineering provides a broad foundation in the synthesis, characterization, processing and design of polymers. Polymers are large molecules (i.e. macromolecules) that are ubiquitous in the world, ranging from plastics and rubber to protein and DNA.

The following information has official approval of **The School of Polymer Science & Polymer Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Polymer Science and Polymer Engineering" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Core		9
Laboratory Experience		3
Electives		6
Total Hours		18

## Core

Code	Title	Hours
PSPE:201	Introduction to Polymer Science	3
PSPE:202	Introduction to Polymer Engineering	3
PSPE:301	Polymer Materials Science and Engineering	3
Total Hours		9

## Laboratory Experience

Code	Title	Hours
<b>Complete three credits</b>		<b>3</b>
PLYE:451	Polymer Engineering Laboratory	
PLYE:497	Honors Project	
PLYE:498	Research Problems in Polymer Engineering <sup>1</sup>	
PLYE:499	Senior Design Project II	
PLYS:405	Polymer Science Laboratory	
PLYS:497	Honors Project in Polymer Science <sup>1</sup>	

PLYS:499	Research Problems in Polymer Science <sup>1</sup>	
Total Hours		3

<sup>1</sup> May be taken multiple semesters to satisfy 3 credit requirement

## Electives <sup>2</sup>

Code	Title	Hours
<b>Complete six credits</b>		<b>6</b>
CHEE:408	Polymer Engineering	
BMEN:300	Biomaterials	
PLYE:422	Polymer Processing	
PLYE:450	Engineering Properties of Polymers	
PLYS:403	Polymer Chemistry	
PLYS:404	Polymer Physics	
Total Hours		6

<sup>2</sup> Elective courses in other departments (e.g. Biomedical Engineering, Chemical and Biomolecular Engineering, Chemistry, Physics) may be taken as elective courses with permission

## College of Health and Human Sciences

The College of Health and Human Sciences brings together undergraduate programs in the School of Allied Health, the Department of Child and Family Development, the School of Disaster Science and Emergency Services, the School of Nursing, the School of Exercise and Nutrition Sciences, the School of Social Work and Family Sciences, and the School of Speech-Language Pathology and Audiology, for interprofessional real-world health education. Learn more about the schools and their admissions requirements:

- School of Allied Health (<https://www.uakron.edu/allied-health/>)
- Department of Child and Family Development (<https://www.uakron.edu/child-family/>)
- School of Disaster Science and Emergency Services (<https://www.uakron.edu/dses/>)
- School of Nursing (<https://www.uakron.edu/nursing/>)
- School of Exercise and Nutrition Sciences (<https://www.uakron.edu/sswe/>)
- School of Social Work and Family Sciences (<https://www.uakron.edu/socialwork/>)
- School of Speech-Language Pathology and Audiology (<https://www.uakron.edu/sslpa/>)
- Allied Health (p. 581)
  - Allied Health Care Administration, BS (p. 583)
  - Health Care Services Coding and Reimbursement, Certificate (p. 585)
  - Respiratory Therapy, BS (p. 586)
- Child and Family Development (p. 588)
  - Case Management for Children and Families, Certificate (p. 590)
  - Child and Family Development, BAT (p. 591)
  - Child Development, Minor (p. 594)
  - Early Childhood Programs, Certificate (p. 595)
  - Family Development, Minor (p. 595)
- Home Based Intervention Therapy, Certificate (p. 596)
- Parent and Family Education, Certificate (p. 596)
- Disaster Science and Emergency Services (p. 597)
  - Computer Forensics, Certificate (p. 602)
  - Computer Forensics, Minor (p. 602)
  - Cyber Disaster Management, Certificate (p. 603)
  - Cyber Forensics, BS (p. 603)
- Emergency Management and Homeland Security, 4-Year Option, BS (p. 605)
- Emergency Management and Homeland Security, Certificate (p. 606)
- Emergency Management and Homeland Security, Minor (p. 607)
- Emergency Management and Homeland Security, Step-up Option, BS (p. 608)
- Emergency Medical Services Technology, EMT/Paramedic Option, AAS (p. 609)
- Emergency Medical Services Technology, Fire/Medic Option, AAS (p. 611)
- Fire Protection Technology, AAS (p. 612)
- Fire Protection Technology, Certificate (p. 613)
- Fire Protection Technology, Minor (p. 614)
- Exercise and Nutrition Sciences (p. 614)
  - Dietetics, Coordinated BST (p. 626)
  - Exercise Science, Applied Exercise Physiology, BS (p. 629)
  - Exercise Science, Coaching and Conditioning, BS (p. 631)
  - Exercise Science, Fitness Management, BS (p. 632)
  - Exercise Science, Pre-Professional Concentration, BS (p. 634)
  - Food & Environmental Nutrition, BST (p. 636)
  - Nutrition, Minor (p. 638)
  - Sport and Exercise Science Sport Coaching & Strength Training, Certificate (p. 639)
  - Sport and Exercise Science Sport Management, Certificate (p. 639)
  - Sport Studies Coach Education, Minor (p. 640)
  - Sport Studies, Coaching Education, BS (p. 640)
  - Sport Studies, Sport Management, BS (p. 642)
  - Sport Studies, Sport Management, Minor (p. 644)
- Nursing (p. 645)
  - Nursing, BSN (p. 647)
  - Nursing, BSN Accelerated (p. 649)
  - Nursing, LPN/BSN (p. 652)
  - Nursing, RN/BSN (p. 654)
- Social Work (p. 656)
  - Addiction Services, Basic, Certificate (p. 659)
  - Addiction Services, Minor (p. 660)
  - Social Work, BA (p. 660)
  - Social Work, BAT (p. 663)
- Speech-Language Pathology and Audiology (p. 666)
  - Manual Communication, Certificate (p. 668)
  - Speech Language Pathology & Audiology, B.A. (p. 668)
  - Speech Language Pathology & Audiology, B.A.T. (p. 671)

## Allied Health

### Bachelor of Science in Allied Health Care Administration (275002BS)

More on the Allied Healthcare Administration (<https://www.uakron.edu/allied-health/baha/>)

#### Contact Information

Dr. Kristine Kraft  
Polsky 265  
330-972-6516  
knk@uakron.edu

### Bachelor of Science in Respiratory Therapy (279002BS)

More on the Respiratory Therapy (<https://www.uakron.edu/allied-health/respiratory-care/>)

#### Contact Information

Stacia Biddle, R.R.T.  
Associate Professor and Program Director of Respiratory Therapy  
330-972-7906  
stacia@uakron.edu

### Certificate in Healthcare Services Coding and Reimbursement (275003C)

#### Contact Information

Dr. Kristine Kraft  
Polsky 265  
330-972-6516  
knk@uakron.edu

- Allied Health Care Administration, BS (p. 583)
- Health Care Services Coding and Reimbursement, Certificate (p. 585)
- Respiratory Therapy, BS (p. 586)

## Allied Healthcare Administration (BAHA)

#### BAHA:120 Medical Terminology (3 Credits)

Medical Terminology includes the study of medical prefixes, suffixes, word roots, combining forms, and with an emphasis on pronunciation, spelling, and abbreviations. Medical Terminology related to the body systems will be emphasized. The purpose of the course is to equip the student with a basic understanding of the tools needed to learn medical terminology as it relates to the body systems with an emphasis on spelling and pronunciation. (Formerly 2750:120)

#### BAHA:121 Study of Disease Processes (3 Credits)

This course studies human disease and the disease process including treatments, causes, incidence, signs and symptoms, and diagnosis. (Formerly 2750:121)

#### BAHA:122 Emergency Responder I (1 Credit)

Theory and practice in recognition and response to emergencies by the medical professional including but not limited to: breathing difficulty, cardiac arrest, heart attack, stroke, bleeding, wound care, musculoskeletal injuries, burns, poisonings, heat and cold exposure, and diabetic care. (Formerly 2750:122)

#### BAHA:200 Health Record Content (3 Credits)

Introduction to the contents and design of health records (paper and electronic) and discussion of how clinical documentation facilitates the function of the delivery system. (Formerly 2750:200)

#### BAHA:226 Healthcare Statistics and Registries (3 Credits)

Prerequisites: 2030:130 and CISS 105. This course covers computations of routine healthcare institutional statistics, the presentation and interpretation of healthcare data, and the use of disease and procedural registries. (Formerly 2750:226)

#### BAHA:227 Basic Procedural Coding (3 Credits)

Prerequisite: BAHA 120. Class focuses on converting the procedural language into industry standard character strings for purposes of reimbursement CPT and HCPCS codes; learning how to convert procedural statements into CPT and HCPCS codes; learning how to apply carrier rules for reimbursement. (Formerly 2750:227)

#### BAHA:229 Basic Diagnostic Coding (3 Credits)

Prerequisite: BAHA 120. This class focuses on converting the diagnostic language into industry standard character strings ICD-10-CM for purposes of reporting, research, and reimbursement. (Formerly 2750:229)

#### BAHA:230 Basic Pharmacology (3 Credits)

This course is an introduction to pharmacology, organized and presented by therapeutic classification. Topics will include pharmacokinetics, factors which influence drug actions, routes or administration, and adverse effects. (Formerly 2750:230)

#### BAHA:302 Clinical Information Systems (3 Credits)

Discussion of clinical systems including history of EHR and EMR, the theories behind systems, implementation, evaluation pathways, "Meaningful Use" and the architecture in different settings. (Formerly 2750:302)

#### BAHA:303 Advanced Coding II (3 Credits)

Prerequisites: BAHA 227 and BAHA 229. Through case studies, the class is intended to prepare the student for either the AAPC CPC or the AHIMA CCS-P certification exam. (Formerly 2750:303)

#### BAHA:304 Healthcare Management Foundations (3 Credits)

This course focuses on the circumstances unique to the health care industry management as manifested by patient privacy, outsourcing, and telecommunications. (Formerly 2750:304)

#### BAHA:328 Medical Insurance (3 Credits)

Prerequisites: BAHA 120, BAHA 227, and BAHA 229. This course examines the nature of medical insurance reimbursement for medical services. Students will be equipped with an understanding of insurance and reimbursement methodologies. (Formerly 2750:328)

#### BAHA:331 Advanced Coding I (3 Credits)

Prerequisites: BAHA 120, BAHA 227, and BAHA 229. An advanced coding course that builds on the CPT and HCPCS codes sets and the ICD-10-CM code set and introduces a series of detailed management topics related to coding. (Formerly 2750:331)

#### BAHA:336 Legal Concepts of Healthcare (3 Credits)

Study of legal principles related to patient care and patient records. (Formerly 2750:336)

#### BAHA:350 Coding Practicum (3 Credits)

Prerequisites: BAHA 227, BAHA 229, BAHA 303, and BAHA 331. The coding practicum course provides professional experience in an approved site under the direction of a coding or HIM faculty member and an onsite coordinator. (Formerly 2750:350)

**BAHA:401 Management Information Systems (3 Credits)**

This senior level course focuses on the management of HIM through case studies and textbook work. (Formerly 2750:401)

**BAHA:402 Quality Management in Healthcare (3 Credits)**

Prerequisites: BAHA 200 and BAHA 328 or permission. An introduction of the methods used to define, implement, and monitor total quality management in health care. (Formerly 2750:402)

**BAHA:410 Healthcare Research (3 Credits)**

Prerequisites: ENGL 222 and STAT 260. Through review of research, HIM students in this class will learn how to support clinicians' data needs while research is conducted. (Formerly 2750:410)

**BAHA:411 Healthcare Finance (3 Credits)**

Prerequisites: [COMM 211 or ACCT 201], BAHA 227, BAHA 229 and BAHA 328. Integration of principles learned in accounting, coding, and insurance prerequisites into an exploration of financial management in the sector of the economy that is healthcare. (Formerly 2750:411)

**BAHA:412 Current Topics in HIM (3 Credits)**

Prerequisites: BAHA 200, BAHA 302, BAHA 303, BAHA 304, BAHA 331, BAHA 336, BAHA 402, and BAHA 411. Concepts of HIM are integrated and applied through the analysis of case studies and the completion of a capstone project. (Formerly 2750:412)

**BAHA:420 HIM Capstone (4 Credits)**

Prerequisites: BAHA 200, BAHA 226, BAHA 302, BAHA 303, BAHA 304, BAHA 331, BAHA 336, BAHA 402, and BAHA 411. This course prepares senior HIM students for the Registered Health Information Administrator (RHIA) national certification examination. (Formerly 2750:420)

**BAHA:450 HIM Practicum (3 Credits)**

Prerequisites: BAHA 200, BAHA 302, BAHA 303, BAHA 304, BAHA 331, BAHA 336, BAHA 402, and BAHA:411. The HIM practicum course provides professional experience in an approved site under the direction of a coding or HIM faculty member and an onsite coordinator. (Formerly 2750:450)

## Allied Health (ANAT)

**ANAT:206 Applied Human Anatomy & Physiology I (3 Credits)**

This course is designed to familiarize students to the structure, function, and physiology of the human body. Topics covered include organization of the body, chemistry, cells, tissues, integumentary system, the skeletal, articulations, muscular system, respiratory system, blood, and cardiovascular system. (Formerly 2780:206)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**ANAT:207 Applied Human Anatomy & Physiology II (3 Credits)**

This course is designed to familiarize students the structure, function, and physiology of the human body. This course is the second portion of a two part course. Topics covered include the following body systems: nervous system, senses, endocrine system, lymphatic system, immune system, digestive system, urinary system, male reproductive system, female reproductive, and life span development. (Formerly 2780:207)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**ANAT:210 Applied Human Anatomy & Physiology Lab I (1 Credit)**

Pre/Corequisite: ANAT 206. This course is an adjunct to the lecture of the structure and function of the human body. This course will be hands on learning to assist in the understanding of anatomy and physiology. Topics covered include organization of the body, chemistry, cells, tissues, skeletal system, muscular system, hematology, cardiovascular, and respiratory systems (Formerly 2780:210)

**Gen Ed:** - Natural Science w/LAB

**ANAT:211 Applied Human Anatomy & Physiology Lab II (1 Credit)**

Pre/Corequisite: ANAT 207. This course is an adjunct course of an introduction to the structure and function of the human body. This course will be hands on learning to assist in the learning of anatomy and physiology. Topics covered include the following body systems; nervous, senses, endocrine, digestive, urinary, reproductive, lymphatic, and human development. (Formerly 2780:211)

**Gen Ed:** - Natural Science w/LAB

**ANAT:290 Special Topics: Allied Health (1-2 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in allied health. (May be repeated for a total of four credits) (Formerly 2780:290)

## Respiratory Care (RESP)

**RESP:100 Concepts in Respiratory Therapy (3 Credits)**

Prerequisites: MATH 152 and MATH 153. Introductory concepts regarding the practice and application of the theories employed in respiratory therapy, including career information, equipment (lecture/discussion) (Formerly 2790:100)

**RESP:210 Respiratory Therapy Procedures I (3 Credits)**

Prerequisites: [RESP 100, BAHA 120, and ANAT 206] or [BIOL 200 and BIOL 201]. Application of oxygen and aerosol therapy equipment. Lecture/laboratory. (Formerly 2790:210)

**RESP:215 Respiratory Therapy Pharmacology (3 Credits)**

Prerequisites: RESP 100, CHEM 110, and CHEM 111. Pharmacologic actions and effects of medications delivered by respiratory therapists, and routes of administration. (Formerly 2790:215)

**RESP:290 Special Topics: Respiratory Care (1-3 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in respiratory therapy technology. (May be repeated for a maximum of three credits) (Formerly 2790:290)

**RESP:301 Cardiopulmonary Assessment Techniques (2 Credits)**

Prerequisite: ANAT 207 or [BIOL 202 and BIOL 203]. Overall patient assessment, with concentration on the cardiopulmonary systems. Overview of common illness and related clinical manifestations. Lecture/laboratory. (Formerly 2790:301)

**RESP:302 Cardiopulmonary Anatomy and Physiology (3 Credits)**

Prerequisites: [RESP 210 and ANAT 207] or [BIOL 202 and BIOL 203]. Corequisite: RESP 301. Study of normal anatomy and physiology of cardiopulmonary systems. (Formerly 2790:302)

**RESP:303 Cardiopulmonary Pathology (4 Credits)**

Prerequisites: RESP 301 and RESP 302. Discussion of diseases of the heart and lungs, and their relationship to the role of the respiratory therapist. (Formerly 2790:303)

**RESP:311 Respiratory Therapy Procedures II (3 Credits)**

Prerequisites: [RESP 210 and ANAT 207] or [BIOL 202 and BIOL 203]. Airway Care and Lung Inflation Techniques. Lecture/laboratory. (Formerly 2790:311)

**RESP:312 Diagnostics I (3 Credits)**

Prerequisite: RESP 210. Corequisites: RESP 301, RESP 302, and RESP 311. Bedside screening studies for the evaluation of cardiopulmonary diseases. Lecture/laboratory. (Formerly 2790:312)

**RESP:313 Diagnostics II (3 Credits)**

Prerequisites: RESP 311 and RESP 312. Corequisite: RESP 303. Laboratory diagnostic studies for the evaluation of cardiopulmonary diseases. Lecture/laboratory. (Formerly 2790:313)

**RESP:315 Advanced Pharmacology for Respiratory Therapy (3 Credits)**

Prerequisite: RESP 215. Pharmacologic actions and effects of Cardiopulmonary Medications. (Formerly 2790:315)

**RESP:320 Neonatal/Pediatrics for Respiratory Therapy I (3 Credits)**

Prerequisite: RESP 301. In depth coverage of neonatal & pediatric respiratory care concepts. Emphasis placed on anatomy and physiology, assessment, and therapeutics. (Formerly 2790:320)

**RESP:325 Mechanical Ventilation (4 Credits)**

Prerequisites: RESP 303, RESP 312, RESP 315, RESP 320, and RESP 341. Introduction to mechanical ventilation and equipment. Lecture/lab. (Formerly 2790:325)

**RESP:340 Application of Clinical Concepts (2 Credits)**

Prerequisite: RESP 210. Corequisite: RESP 301. Introduction to basic respiratory therapy in a hospital setting, and hands-on practice with respiratory therapy equipment, including CPR for the professional. Lecture/clinical. (Formerly 2790:340)

**RESP:341 RT Clinical Experience I (3 Credits)**

Prerequisites: RESP 215, RESP 311, and RESP 340. Application of clinical procedures in a hospital setting, with emphasis on basic therapeutic interventions. Clinical. 225 clinical hours. (Formerly 2790:341)

**RESP:342 RT Clinical Experience II (2 Credits)**

Prerequisites: RESP 315, RESP 325, and RESP 341. Application of clinical procedures in a hospital setting, with emphasis on mechanical ventilation techniques. 150 clinical hours. (Formerly 2790:342)

**RESP:413 Respiratory Therapy in Alternate Settings (3 Credits)**

Prerequisite: RESP 313. Pulmonary rehabilitation and home care, as well as care in alternate settings. Lecture/lab. (Formerly 2790:413)

**RESP:420 Neonatal/Pediatrics for Respiratory Therapy II (3 Credits)**

Prerequisite: RESP 320. Detailed study of airway management, pathophysiology and treatment modalities as they relate to neonatal/pediatrics. (Formerly 2790:420)

**RESP:421 Advanced Critical Care (3 Credits)**

Prerequisites: RESP 303, RESP 315, RESP 320, and RESP 340. This course will provide an in-depth overview of advanced mechanical ventilator modes, advanced mechanical ventilator management strategies, complex disease processes and disease management which includes critical care pharmacology. Advanced Cardiovascular Life Support (ACLS), including advanced ECG interpretation, and Pediatric Advanced Life Support (PALS) introductory concepts will also be discussed. (Formerly 2790:421)

**RESP:430 Problems in Respiratory Therapy (4 Credits)**

Prerequisites: RESP 313, RESP 420, and RESP 443. Capstone course, applies the concepts from clinical situations, using computer simulations and cases and evaluates research in Respiratory therapy. (Formerly 2790:430)

**RESP:443 RT Clinical Experience III (4 Credits)**

Prerequisite: RESP 342. Rotation to a variety of Health care facilities to practice specialty procedures in each institution. 300 clinical hours (Formerly 2790:443)

**RESP:444 RT Clinical Experience IV (4 Credits)**

Prerequisite: RESP 443. Rotation to a variety of health care facilities to practice specialty procedures from each institution. Clinical (total of 300 hours). (Formerly 2790:444)

## Allied Health Care Administration, BS Bachelor of Science in Allied Health Care Administration (275002BS)

M (<https://www.uakron.edu/allied-health/allied-health-administration/>)ore on the Allied Health Care Administration major (<https://www.uakron.edu/allied-health/baha/>)

### Contact Information

Dr. Kristine Kraft  
Polsky 265  
330-972-6516  
knk@uakron.edu

### Program Description

Allied Health Care Administration managers work closely with clinical and administrative staff as they process, analyze and report information vital to the delivery of health care. Through our program, you will gain knowledge and experience in both the clinical and business sides of health care.

The Bachelor of Allied Health Care Administration degree allows new students and those holding an Associate of Applied Science degree to earn a bachelor's degree, often a requirement to move into supervisory or management roles.

This degree can also put you on a path toward master's and doctoral-level work in many health-care related professions.

The following information has official approval of **The Department of Allied Health** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	27
	Core Courses	53
	Other Required Courses	21
	Electives	19
	<b>Total Hours</b>	<b>120</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Recommended General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

### Academic Foundations 12

*Mathematics, Statistics and Logic: 3 credit hours*

MATH:145 Algebra for Calculus

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

### Breadth of Knowledge 22

*Arts/Humanities: 9 credit hours*

PHIL:120 Introduction to Ethics

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Diversity

Domestic Diversity

Global Diversity

### Integrated and Applied Learning

*Select one class from one of the following subcategories:*

Complex Issues Facing Society

PHIL:360

PSYC:425 Psychology of Hate

SOCIO:320 Social Inequalities

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

## Core Courses

Code	Title	Hours
BAHA:120	Medical Terminology	3
BAHA:121	Study of Disease Processes	3
BAHA:200	Health Record Content	3
BAHA:227	Basic Procedural Coding	3
BAHA:229	Basic Diagnostic Coding	3
BAHA:230	Basic Pharmacology	3
BAHA:302	Clinical Information Systems	3
BAHA:303	Advanced Coding II	3
BAHA:304	Healthcare Management Foundations	3
BAHA:328	Medical Insurance	3
BAHA:331	Advanced Coding I	3
BAHA:336	Legal Concepts of Healthcare	3
BAHA:401	Management Information Systems	3

BAHA:402	Quality Management in Healthcare	3
BAHA:411	Healthcare Finance	3
ANAT:206	Applied Human Anatomy & Physiology I <sup>1</sup>	3
ANAT:207	Applied Human Anatomy & Physiology II <sup>1</sup>	3
ANAT:210	Applied Human Anatomy & Physiology Lab I	1
ANAT:211	Applied Human Anatomy & Physiology Lab II	1
Total Hours		53

## Other Required Courses

Code	Title	Hours
ENGL:111	English Composition I <sup>1</sup>	3
COMM:211	Essentials of Financial Accounting	3
COMM:213	Essentials of Management Accounting	3
COMM:270	Business Software Applications	3
CISS:105	Introduction to Computers and Application Software	3
ENGL:222	Technical Report Writing <sup>1</sup>	3
PHIL:120	Introduction to Ethics <sup>1</sup>	3
Total Hours		21

## Electives

Code	Title	Hours
<b>Select 19 credits:</b>		<b>19</b>
EMHS:305	Principals of Emergency Management and Homeland Security	
EMHS:401	Crisis Leadership	
COMM:331	Information Design	
COMM:334	Leadership Principles & Practices	
BAHA:350	Coding Practicum	
BAHA:450	HIM Practicum	
AMET:332	Management of Technology Based Operations	
HIST:487	Science and Technology in World History	
PHIL:361	Biomedical Ethics <sup>2</sup>	
POLIT:203	Introduction to Political Thought	
PSYC:380	Industrial/Organizational Psychology	
PSYC:425	Psychology of Hate <sup>2</sup>	
CHFD:301	Consumer Education	
SOCIO:320	Social Inequalities <sup>2</sup>	
PAUS:416	Personnel Management in the Public Sector	
PAUS:417	Leadership and Decision-Making	
NUTR:316	Science of Nutrition	
Total Hours		19

<sup>1</sup> This course is required for the degree program. It also satisfies a General Education requirement.

<sup>2</sup> One of these courses will also satisfy the Complex Issues General Education requirement.

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
BAHA:120 Medical Terminology	3



CISS:105	Introduction to Computers and Application Software	3
ANAT:206	Applied Human Anatomy & Physiology I	3
ANAT:210	Applied Human Anatomy & Physiology Lab I	1
	Mathematics, Statistics and Logic Requirement	3
	Hours	16

**Spring Semester**

COMM:211	Essentials of Financial Accounting	3
ANAT:207	Applied Human Anatomy & Physiology II	3
ANAT:211	Applied Human Anatomy & Physiology Lab II	1
ENGL:222	Technical Report Writing	3
PHIL:120	Introduction to Ethics	3
	Speaking Requirement	3
	Hours	16

**2nd Year****Fall Semester**

BAHA:230	Basic Pharmacology	3
COMM:270	Business Software Applications	3
	Domestic Diversity Requirement	3
	Arts/Humanities Requirement	4
	Social Science Requirement	3
	Hours	16

**Spring Semester**

BAHA:121	Study of Disease Processes	3
COMM:213	Essentials of Management Accounting	3
	Electives	3
	Complex Issues Requirement	3
	Arts/Humanities Requirement	3
	Hours	15

**3rd Year****Fall Semester**

BAHA:200	Health Record Content	3
BAHA:227	Basic Procedural Coding	3
BAHA:229	Basic Diagnostic Coding	3
xxxx:3xx/4xx	Elective <sup>1</sup>	3
	Social Science/Domestic Diversity Requirement	3
	Hours	15

**Spring Semester**

BAHA:302	Clinical Information Systems	3
BAHA:328	Medical Insurance	3
BAHA:331	Advanced Coding I	3
BAHA:402	Quality Management in Healthcare	3
xxxx:3xx/4xx	Elective	3
	Hours	15

**4th Year****Fall Semester**

BAHA:304	Healthcare Management Foundations	3
BAHA:303	Advanced Coding II	3
BAHA:401	Management Information Systems	3

xxxx:3xx/4xx	Elective <sup>1</sup>	3
	Global Diversity Requirement	3
	Hours	15

**Spring Semester**

BAHA:336	Legal Concepts of Healthcare	3
BAHA:411	Healthcare Finance	3
xxxx:3xx/4xx	Elective <sup>1</sup>	3
xxxx:3xx/4xx	Elective <sup>1</sup>	3
	Elective	2
	Hours	14
	Total Hours	122

<sup>1</sup> Recommended 3xx/4xx Elective List:

- EMHS:305 Principals of Emergency Management and Homeland Security
- EMHS:305 Principals of Emergency Management and Homeland Security
- COMM:331 Information Design
- COMM:334 Leadership Principles & Practices
- COMM:334 Leadership Principles & Practices
- HIST:487 Science and Technology in World History
- PHIL:361 Biomedical Ethics
- POLIT:203 Introduction to Political Thought
- PSYC:380 Industrial/Organizational Psychology
- PSYC:425 Psychology of Hate
- CHFD:301 Consumer Education
- SOCIO:320 Social Inequalities
- PAUS:416 Personnel Management in the Public Sector
- PAUS:417 Leadership and Decision-Making
- NUTR:316 Science of Nutrition

## Health Care Services Coding and Reimbursement, Certificate

### Certificate in Health Care Services Coding and Reimbursement (275003C)

The Health Care Services Coding and Reimbursement certificate is designed to provide graduates an in-depth understanding of how healthcare services are reimbursed by insurance. In the case of those graduates who will bill for their services, that understanding will make them more attractive to healthcare system employers. In the case of graduates seeking to move into a managerial role in their department or operational setting, that understanding is fundamental to maximizing the department's revenue stream, again making the UA graduate a more attractive employee manager.

**Program Contact**

*Dr. Kristine Kraft*  
*Polsky 265*  
*330-972-6516*  
 knk@uakron.edu

The following information has official approval of **The School of Allied Health** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

## Summary

Code	Title	Hours
Required Courses		24
Total Hours		24

## Required Courses

Code	Title	Hours
BAHA:120	Medical Terminology	3
BAHA:227	Basic Procedural Coding	3
BAHA:229	Basic Diagnostic Coding	3
BAHA:303	Advanced Coding II	3
BAHA:328	Medical Insurance	3
ANAT:206	Applied Human Anatomy & Physiology I	3
ANAT:207	Applied Human Anatomy & Physiology II	3
NURS:217 or BAHA:121	Pathophysiology for Nurses Study of Disease Processes	3
Total Hours		24

# Respiratory Therapy, BS

## Bachelor of Science in Respiratory Therapy (279002BS)

More on the Respiratory Therapy major (<https://www.uakron.edu/allied-health/respiratory-care/>)

## Contact Information

Stacia Biddle, R.R.T.  
Associate Professor and Program Director of Respiratory Therapy  
330-972-7906  
stacia@uakron.edu

## Program Description

**Respiratory Therapists:** assess, treat and care for patients with breathing disorders. Primary responsibilities include initiation of and monitoring of therapeutic procedures, maintaining patient records, selecting, assembling, operating and maintaining respiratory and life-support equipment.

Respiratory Therapists may be employed by hospitals, clinics, long-term acute care facilities, physician offices, pulmonary rehabilitation centers, home-care agencies, sleep-labs, durable medical equipment sales companies, as well as participate in intra-facility transport at some hospitals. According to the United States Bureau of Labor Statistic 2010, Respiratory Therapists earn a median hourly wage of \$26.86 with the bottom 10% at \$39,990 and the top 10% earning greater than \$73,410. (Mean annual wage of \$52,700 in Ohio).

The job outlook for a Respiratory Therapist is good with faster than average growth projected. The increased demand will come from the therapist's expanding role and increase in number of older persons. Related occupations include: Athletic Trainers, Occupational Therapists, Physical Therapists, Radiation Therapists, and Registered Nurses.

**Accreditation:** The Bachelor of Science in Respiratory Therapy program at The University of Akron is accredited by the Commission on Accreditation

for Respiratory Care (CoARC); 777 Cannon Drive, P. O, Box 54876, Hurst, TX 76054-4876 USA.

### Requirements for Admission

The program requires the following prerequisite courses to be completed with a C or better: Math requirement, Medical Terminology, Concepts in Respiratory Therapy, Principles of Microbiology, Anatomy and Physiology I requirement, and Intro to General, Organic & Biochemistry.

**Application Deadline:** Application deadline is November 30th for those students who will complete all of the pre-admission courses<sup>1</sup> by the end of fall semester with a minimum 2.3 GPA or higher.

Application to the program is competitive but varies each year by applicant pool. Acceptance is based on overall grade point average as well as grades earned in required math and science courses. Application to the program requires a criminal background check (FBI and BCI). Twenty (20) students are selected each year. Applications will be administered to students while they are enrolled in RESP:100 Concepts in Respiratory Therapy, or may be picked up in the School of Allied Health, Polsky 265 at any time.

<sup>1</sup> Pre-admission coursework, students must apply by November 30th (see Application Deadline/Requirements).

The following information has official approval of **The Department of Allied Health** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		10
Prerequisite Courses		40
Core Courses		71
Total Hours		121

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:145	Algebra for Calculus	
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
PHIL:120	Introduction to Ethics	
<i>Natural Sciences: 7 credit hours</i>		
BIOL:100	Introduction to Botany	
BIOL:200	Human Anatomy & Physiology I	
BIOL:202	Human Anatomy & Physiology II	
BIOL:202	Human Anatomy & Physiology II	
CHEM:110	Introduction to General, Organic & Biochemistry I (Lecture)	
	or CHEM:151 Principles of Chemistry I	
CHEM:110	Introduction to General, Organic & Biochemistry I (Lecture)	
CHEM:111	Introduction to General, Organic & Biochemistry I (Laboratory)	
<i>Social Sciences: 6 credit hours</i>		
PSYC:100	Introduction to Psychology	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
PHIL:361	Biomedical Ethics	
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Prerequisite Courses

Code	Title	Hours
MATH:145	Algebra for Calculus <sup>1,2</sup>	4
PSYC:100	Introduction to Psychology	3

SOCIO:100	Introduction to Sociology	3
CHEM:110	Introduction to General, Organic & Biochemistry I (Lecture) <sup>1</sup>	3
	or CHEM:151 Principles of Chemistry I	
CHEM:111	Introduction to General, Organic & Biochemistry I (Laboratory) <sup>1</sup>	1
	or CHEM:152 Principles of Chemistry I Laboratory	
PHIL:120	Introduction to Ethics	3
PHIL:361	Biomedical Ethics	3
BIOL:130	Principles of Microbiology <sup>1</sup>	3
BIOL:200	Human Anatomy & Physiology I <sup>1</sup>	3
BIOL:202	Human Anatomy & Physiology II	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
BIOL:203	Human Anatomy & Physiology Laboratory II	1
BAHA:120	Medical Terminology <sup>1</sup>	3
COMM:105	Introduction to Public Speaking	3
COMM:330	Principles of Organizational Supervision	3
Total Hours		40

<sup>1</sup> Course required for application

<sup>2</sup> Completing 1) STAT:250 Statistics for Everyday Life or, 2) MATH:153 Technical Mathematics III and MATH:154 Technical Mathematics IV satisfies this requirement.

## Core Courses

Code	Title	Hours
RESP:100	Concepts in Respiratory Therapy <sup>1</sup>	3
RESP:210	Respiratory Therapy Procedures I	3
RESP:215	Respiratory Therapy Pharmacology	3
RESP:301	Cardiopulmonary Assessment Techniques	2
RESP:302	Cardiopulmonary Anatomy and Physiology	3
RESP:303	Cardiopulmonary Pathology	4
RESP:311	Respiratory Therapy Procedures II	3
RESP:312	Diagnostics I	3
RESP:313	Diagnostics II	3
RESP:315	Advanced Pharmacology for Respiratory Therapy	3
RESP:320	Neonatal/Pediatrics for Respiratory Therapy I	3
RESP:325	Mechanical Ventilation	4
RESP:340	Application of Clinical Concepts	2
RESP:341	RT Clinical Experience I	3
RESP:342	RT Clinical Experience II	2
RESP:413	Respiratory Therapy in Alternate Settings	3
RESP:420	Neonatal/Pediatrics for Respiratory Therapy II	3
RESP:421	Advanced Critical Care	3
RESP:430	Problems in Respiratory Therapy	4
RESP:443	RT Clinical Experience III	4
RESP:444	RT Clinical Experience IV	4
ENGL:111	English Composition I	3
ENGL:112	English Composition II	3
Total Hours		71

<sup>1</sup> Course required for application

## Recommended Sequence

### 1st Year

Fall Semester		Hours
CHEM:110	Introduction to General, Organic & Biochemistry I (Lecture) <sup>1,2</sup>	3
CHEM:111	Introduction to General, Organic & Biochemistry I (Laboratory) <sup>1,2</sup>	1
ENGL:111	English Composition I <sup>1</sup>	3
SOCIO:100	Introduction to Sociology <sup>1</sup>	3
	Mathematics, Statistics, and Logic Requirement <sup>1,3</sup>	3
Hours		13

### Spring Semester

BAHA:120	Medical Terminology <sup>1,2</sup>	3
RESP:100	Concepts in Respiratory Therapy (Currently available in Spring and Fall) <sup>1,2</sup>	3
ENGL:112	English Composition II <sup>1</sup>	3
PSYC:100	Introduction to Psychology <sup>1</sup>	3
COMM:105 or COMM:106	Introduction to Public Speaking <sup>1</sup> or Effective Oral Communication	3
Hours		15

### 2nd Year

Fall Semester		Hours
BIOL:130	Principles of Microbiology <sup>1,2</sup>	3
PHIL:120	Introduction to Ethics	3
	Arts Requirement	3
Select one of the following options:		3-4
ANAT:206	Applied Human Anatomy & Physiology I	
BIOL:200 & BIOL:201	Human Anatomy & Physiology I and Human Anatomy & Physiology Laboratory I <sup>1,2</sup>	
Hours		12-13

### Spring Semester

RESP:210	Respiratory Therapy Procedures I	3
RESP:215	Respiratory Therapy Pharmacology	3
	Arts/Humanities Requirement	3
Select one of the following options:		3-4
ANAT:207	Applied Human Anatomy & Physiology II	
BIOL:202 & BIOL:203	Human Anatomy & Physiology II and Human Anatomy & Physiology Laboratory II <sup>2</sup>	
Hours		12-13

### Summer Semester

RESP:301	Cardiopulmonary Assessment Techniques	2
Hours		2

### 3rd Year

Fall Semester		Hours
RESP:302	Cardiopulmonary Anatomy and Physiology	3
RESP:311	Respiratory Therapy Procedures II	3
RESP:312	Diagnostics I	3
RESP:340	Application of Clinical Concepts	2
PHIL:361	Biomedical Ethics	3
Hours		14

### Spring Semester

RESP:303	Cardiopulmonary Pathology	4
RESP:313	Diagnostics II	3
RESP:315	Advanced Pharmacology for Respiratory Therapy	3
RESP:320	Neonatal/Pediatrics for Respiratory Therapy I	3
RESP:341	RT Clinical Experience I	3
Hours		16

### Summer Semester

RESP:325	Mechanical Ventilation	4
RESP:342	RT Clinical Experience II	2
Hours		6

### 4th Year

#### Fall Semester

COMM:300	Newsriting Across the Media	3
RESP:421	Advanced Critical Care	3
RESP:420	Neonatal/Pediatrics for Respiratory Therapy II	3
RESP:443	RT Clinical Experience III	4
	Domestic Diversity Requirement	3
Hours		16

#### Spring Semester

RESP:413	Respiratory Therapy in Alternate Settings (lab)	3
RESP:430	Problems in Respiratory Therapy	4
RESP:444	RT Clinical Experience IV	4
	Global Diversity Requirement	3
Hours		14
Total Hours		120-122

<sup>1</sup> Pre-admission coursework, students must apply by November 30th (see Application Deadline/Requirements).

<sup>2</sup> All courses must be completed with a grade of C or better and may only be repeated one time.

<sup>3</sup> MATH:145 Algebra for Calculus is preferred.

**Policy Alert:** By the end of your first 48 credit hours attempted, you should have completed your *required* General Education English, Math, and Communications (Speech) requirements.

## Child and Family Development

Students in the Child and Family Development program complete coursework in human development, family dynamics, health and nutrition, diversity, consumer issues, early childhood programming, applied skills, and much more. Faculty members advise every student and help them maximize their degree by incorporating possible minors and certificates into their program. Students complete a capstone experience which gives them the opportunity to work with professionals and apply their academic knowledge to real-world settings.

- Case Management for Children and Families, Certificate (p. 590)
- Child and Family Development, BAT (p. 591)
- Child Development, Minor (p. 594)
- Early Childhood Programs, Certificate (p. 595)

- Family Development, Minor (p. 595)
- Home Based Intervention Therapy, Certificate (p. 596)
- Parent and Family Education, Certificate (p. 596)

## Child and Family Development (CHFD)

### CHFD:147 Orientation to Child & Family Development (1 Credit)

Introduction to academic programs, careers, and professional skills related to Child & Family Development. Open to all majors. Online sections available. (Formerly 3760:147)

### CHFD:201 Intimate Relationships (3 Credits)

Love, intimacy, relationship development, sexuality, marriage, and parenting are studied in lifespan perspective. (Formerly 3760:201)

### CHFD:245 Infant/Toddler Care and Education Programs (3 Credits)

Prerequisite: CHFD 265. Survey of infant/toddler development. Principles of infant/toddler early care. Design of environment and curriculum based on child's needs. Online section available. (field hours required) (Formerly 3760:245)

### CHFD:246 Multicultural Issues in Child Care (3 Credits)

The study of cultural differences in child care and preschool settings to improve caregiving practices and enhance communication between caregivers and families. (Formerly 3760:246)

### CHFD:250 Observing & Recording Children's Behavior (3 Credits)

Prerequisite: CHFD 265. Develops observing and recording skills, evaluates multiple methods of assessment for children's development and behavior. (field hours required) (Formerly 3760:250)

### CHFD:255 Fatherhood: Parent Role (3 Credits)

Prerequisites: CHFD 201 or CHFD 265. Historic evolution of the father role, its changing social definition, and father's potential effects on a child's development—birth through adolescence. (Formerly 3760:255)

### CHFD:265 Child Development (3 Credits)

Physical, cognitive, language, social, emotional, and personality development of the child from prenatal through adolescence (field hours required). (Formerly 3760:265)

### CHFD:290 Special Topics: Child & Family Development (1-3 Credits)

Selected topics/workshops on subject areas of interest in early childhood development. May be repeated up to 4 credits. (Formerly 3760:290)

### CHFD:297 Independent Study (1-3 Credits)

(May be repeated for a total of six credits) Prerequisite: Permission. Selected topics and special areas of study under supervision and evaluation of selected faculty member with whom specific arrangements have been made. (Formerly 3760:297)

### CHFD:300 Legal Environment of Families (3 Credits)

Introduction to legal concepts and procedures with particular emphasis on how the legal system impacts families. (Formerly 3760:300)

### CHFD:301 Consumer Education (3 Credits)

Examines consumer needs vs. wants, short- and long-term consumer concerns, and problems experienced by individual consumers as they navigate through society. Online section available. (Formerly 3760:301)

### CHFD:360 Parent-Child Relations (3 Credits)

Prerequisite: PSYC 230 or CHFD 265. The study of interactive parent-child relations from infancy through adulthood and the internal and environmental forces which impact family dynamics. Online section available. (Formerly 3760:360)

### CHFD:362 Family Resource Management (3 Credits)

Introduction to the application and resulting impact of resource management theories, decision-making models, processes, and principles to individual and family well-being. (Formerly 3760:362)

### CHFD:365 Infant Development (3 Credits)

Prerequisite: PSYC 230 or CHFD 265. In depth examination of physical, cognitive, language, social, and emotional development beginning in prenatal development and throughout infancy. (field hours required) (Formerly 3760:365)

### CHFD:370 Teaching in the Early Childhood Classroom (2 Credits)

Prerequisite: CHFD 385. Corequisite: CHFD 375. Assists students with the integration of research and applied skills needed as a professional working with young children. (Formerly 3760:370)

### CHFD:375 Teaching in the Early Childhood Classroom Lab (2 Credits)

Prerequisite: CHFD 385. Corequisite: CHFD 370. An integrated practical experience in child development centers under the direction of experienced early childhood professionals (Formerly 3760:375)

### CHFD:380 Play and Human Development (3 Credits)

Prerequisite: CHFD 265 or PSYC 230 or SOWK 427. A study of play and its relationship to typical and atypical development in the physical, cognitive, language, moral, social, and emotional domains. Factors that influence play such as the environment, family, attitudes, and beliefs are discussed. The role of play for all people throughout the lifespan is examined. (field hours required). (Formerly 3760:380)

### CHFD:385 Early Childhood Curriculum Methods (3 Credits)

Prerequisite: CHFD 265. Planning, presenting, evaluating creative activities aligned with learning standards in art, music, movement, language arts, mathematics, and science. Adult-child interactions emphasized. (field hours required) (Formerly 3760:385)

### CHFD:401 American Families in Poverty (3 Credits)

Prerequisites: [PSYC 230 or CHFD 201 or CHFD 265 or SOCIO 340 or SOWK 427], and senior standing. Overview of the issues, trends and social policies affecting American families living in poverty. Online section available. (Formerly 3760:401)

**Gen Ed:** - Complex Issues Facing Society

### CHFD:403 Home-Based Intervention Theory (3 Credits)

Overview of home-based intervention to include philosophy and description of this programming as well as assessment of family, their home and community environment. (Formerly 1820:403)

### CHFD:404 Middle Childhood and Adolescence (3 Credits)

Prerequisites: CHFD 201 and [PSYC 230 or CHFD 265 or SOWK 427]. In depth examination of physical, cognitive, language, social, and emotional development in middle childhood and adolescence. Online section available. (Formerly 3760:404)

### CHFD:406 Family Financial Management (3 Credits)

Practical life skills in financial management such as budgeting strategies, how to save, invest, and plan for financial future. Online section available. (Formerly 3760:406)

### CHFD:410 Family Life Education Methods (3 Credits)

Prerequisites: [CHFD 201 or SOWK 427] and [CHFD 362 or CHFD 406] and admission to a Child and Family Development major. This is an upper division course intended to prepare students in increasing understanding about the general philosophy and broad principles of Family Life Education. Additionally, students will learn how to plan, implement, assess, and evaluate Family Life Education (FLE) programming across the programming phases, from planning through Implementation. Further, students will learn strategies for employing best practices in FLE across diverse groups. (Formerly 3760:410)

**CHFD:421 Special Problems in Child and Family Development (1-3 Credits)**

Additional study or apprentice experience in specialized field or preparation; group and individual experimentation. (Formerly 3760:421)

**CHFD:440 Family Crisis (3 Credits)**

Prerequisite: CHFD 201. Examines family stress and crisis, the influence of internal and external variables on disorganization, coping, and recovery. Includes theory, research, and application. Online section available. (Formerly 3760:440)

**CHFD:441 Family Relationships in Middle and Later Years (3 Credits)**

Prerequisite: CHFD 201 or SOWK 427 or SOCIO 340 or PSYC 230. Exploration of family and individual development of communication and education during the middle and later years of life. Emphasis on issues related to intimacy, economics, social policies, psychological and biological changes. (Formerly 3760:441)

**CHFD:442 Human Sexuality (3 Credits)**

Prerequisite: PSYC 230 or CHFD 201 or SOWK 427. An examination of human sexuality across the lifespan. (Formerly 3760:442)

**CHFD:446 Culture, Ethnicity & Family (3 Credits)**

Prerequisites: CHFD 201 or CHFD 265, and senior status. Study of the role of culture and ethnicity in adaptation of the family system to environment. Online section available. (Formerly 3760:446)

**CHFD:447 Senior Seminar: Critical Issues in FCS Professional Development (1 Credit)**

Prerequisites: FCS major & senior standing. Consideration of family and consumer sciences as a profession and its impact on the quality of life of individuals, families and their environments. Analysis of challenges facing the profession and all home economists. (Formerly 3760:447)

**CHFD:448 Programs for School-Aged (3 Credits)**

Study of the development, implementation and evaluation of school-age child-care programs for before and after school and vacation periods. (Formerly 3760:448)

**CHFD:450 Families, Individuals & Environments (3 Credits)**

Prerequisite: FCS major, senior standing or completion of 90 credits or permission of instructor. Integrative exploration of issues affecting the well-being of individuals, families, and communities in the multiple environments in which they function. (Formerly 3760:450)

**CHFD:460 Organization & Supervision of Child Care Centers (3 Credits)**

Theory, principles and procedures involved in establishing and operating centers for infants, toddlers, preschool and school-age children. (Formerly 3760:460)

**CHFD:461 Case Management for Children & Families I (3 Credits)**

Provides an overview of Case Management basics in a multi-systems collaborative context. Includes roles, values, principles, state and service systems, and service coordination. (Formerly 3760:461)

**CHFD:462 Case Management for Children & Families II (3 Credits)**

Prerequisite: CHFD 461 or CHFD 561. Provides in-depth exploration of Case Management principles and practice. Emphasis on process and functions, assessment, cross-system service planning and coordination, advocacy, and cultural diversity. (Formerly 3760:462)

**CHFD:464 Home-Based Intervention Techniques & Practice (3 Credits)**

Pre/Corequisite: CHFD 403. Provides intervention techniques and skill areas required for home-based intervention and learning opportunities for matching techniques with specific family problems. (Formerly 1820:404)

**CHFD:485 Seminar in Child and Family Development (1-3 Credits)**

Exploration and evaluation of current research on a selected contemporary topic. (May be repeated for a total of six credits) (Formerly 3760:485)

**CHFD:490 Workshop in Child & Family Development (1-3 Credits)**

Prerequisite: Junior or higher standing or permission of instructor. Investigation of an issue or topic in a selected area. May involve off-campus activity and/or on-campus group meeting. (Formerly 3760:490)

**CHFD:494 Internship: Child and Family Development (3 Credits)**

Prerequisite: Permission of the instructor. In depth field experience in business or community agencies relating to children and families (40 hours required per credit). (Formerly 3760:494)

**CHFD:496 Parent Education (3 Credits)**

Prerequisite: CHFD 265, SOWK 7750, or permission of instructor. Practical application that reviews and analyzes parent education methods with major emphasis on the evaluation of parent education programs. Online section available. (Formerly 3760:496)

**CHFD:499 Senior Honors Project in Child & Family Development (1-3 Credits)**

Prerequisites: senior standing in Honors Program and approval of honors preceptor. Individual study supervised by adviser. Student and preceptor develop goals, objectives and methodology. (May be repeated for a total of six credits) (Formerly 3760:499)

## Case Management for Children and Families, Certificate

### Certificate in Case Management for Children and Families (H40202C)

This certificate program is a special course of study that can be added to any degree program. It also may be completed by non-degree students with the permission of the Director of the Center for Family Studies. This certificate represents a concentration in theoretical and practical knowledge in collaborative cross-systems case management for children and families in the context of community-based services. This course of study promotes collaboration among disciplines and services.

**Program Contact**

*Dr. Pamela Schulze*

*Director, Center for Family Studies*

*Professor, Child & Family Development*

*330-972-7725*

*Email schulze@uakron.edu*

## Requirements for Admission

To participate in the program, the student must:

- Be formally admitted to The University of Akron as a degree or non-degree seeking student.
- Non-degree seeking students apply to the program and receive notification of admission from the Center for Family Studies.

The following information has official approval of **The Department of Child & Family Development** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances,

family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Case Management for Children and Families" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Core Courses		6
Electives		6
Total Hours		12

## Core Courses

Code	Title	Hours
CHFD:461	Case Management for Children & Families I	3
CHFD:462	Case Management for Children & Families II	3
Total Hours		6

## Electives

Code	Title	Hours
<b>Select a minimum of 6 credits of the following:</b>		
EMHS:305	Principals of Emergency Management and Homeland Security	6
CHFD:401	American Families in Poverty	
CHFD:440	Family Crisis	
CHFD:403	Home-Based Intervention Theory	
CHFD:464	Home-Based Intervention Techniques & Practice	
NURS:100	Introduction to Nursing	
NURS:211	Foundations of Nursing Practice I	
BAHA:200	Health Record Content	
BAHA:304	Healthcare Management Foundations	
SLPA:215	Introduction to Hearing and Speech Science	
SPLA:445		
PSYC:230	Developmental Psychology	
PSYC:430	Psychological Disorders of Children	
PSYC:475	Psychology of Adulthood & Aging	
SOCIO:310	Social Problems	
SOCIO:320	Social Inequalities	
SOCIO:340	The Family	
SOCIO:412	Socialization: Child to Adult	
SOCIO:455	Family Violence	
SOWK:230	Human Relations	
SOWK:244	Death & Dying	3
SOWK:344	Death & Dying	
SOWK:260	Introduction to Addiction	
SOWK:268	Co-Occurring Disorders	
SOWK:269	Criminal Justice & Addiction	
SOWK:270	Diversity and Social Work	
SOWK:275	Introduction to Social Work Practice	
SOWK:277	Case Management in Community Services	

SOWK:345	Death and Dying for Health Care Professionals	9
Total Hours		9

## Child and Family Development, BAT Bachelor of Arts in Child and Family Development (H40108BAT)

Students in the Child and Family Development program complete coursework in human development, diversity issues, family dynamics, ethics, law, and policy, family life education, financial and consumer issues, early childhood programming, and practical and/or research applications. Students are also required to pursue a certificate or minor and complete an internship at an agency that aligns with their career goals, making graduates are competitive in the job market as evidenced by over 90% of students surveyed pursuing careers in their chosen profession.

The following information has official approval of **The Department of Child and Family Development** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Students are encouraged to visit the Department of Child and Family Development their freshman year to obtain preliminary information regarding the program requirements and to learn more about on-campus opportunities available to students.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Core Courses		7
Human Development		18
Diversity Issues		6
Early Childhood Programming		3
Law and Policy		6
Family Life Education & Consumer Issues		12
Family Dynamics		6
Applications in Child and Family Development		6
Research Foundations		3
Internship Experience		3
CFD Electives and Certificate Courses *		16
Total Hours		120

\* Variable credits total

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Core Courses

Code	Title	Hours
CHFD:147	Orientation to Child & Family Development	1
CHFD:201	Intimate Relationships	3
CHFD:265	Child Development	3
Total Hours		7

## Human Development

Code	Title	Hours
CHFD:365	Infant Development	3
CHFD:380	Play and Human Development	3
CHFD:404	Middle Childhood and Adolescence	3
CHFD:441	Family Relationships in Middle and Later Years	3
CHFD:442	Human Sexuality	3
NUTR:132	Early Childhood Nutrition	3
Total Hours		18

## Diversity Issues

Code	Title	Hours
CHFD:401	American Families in Poverty	3
CHFD:446	Culture, Ethnicity & Family	3
Total Hours		6

## Early Childhood Programming

Code	Title	Hours
<b>Complete 3 credits:</b>		<b>3</b>
CHFD:245	Infant/Toddler Care and Education Programs	
CHFD:250	Observing & Recording Children's Behavior	
CHFD:370	Teaching in the Early Childhood Classroom	
CHFD:375	Teaching in the Early Childhood Classroom Lab	
CHFD:385	Early Childhood Curriculum Methods	
CHFD:448	Programs for School-Aged	
CHFD:460	Organization & Supervision of Child Care Centers	
Total Hours		3

## Law and Policy

Code	Title	Hours
CHFD:300	Legal Environment of Families	3
SOWK:445	Social Policy Analysis for Social Workers	3
Total Hours		6

## Family Life Education & Consumer Issues

Code	Title	Hours
CHFD:301	Consumer Education	3
CHFD:362	Family Resource Management	3
CHFD:410	Family Life Education Methods	3
SOWK:480	Special Topics: Social Work & Social Welfare (Family Financial Management)	3
Total Hours		12

## Family Dynamics

Code	Title	Hours
CHFD:360	Parent-Child Relations	3
CHFD:440	Family Crisis	3
Total Hours		6

## Applications in Child and Family Development

Code	Title	Hours
<b>Complete 6 credits:</b>		<b>6</b>
CHFD:461	Case Management for Children & Families I	
CHFD:462	Case Management for Children & Families II	
CHFD:485	Seminar in Child and Family Development	
CHFD:496	Parent Education	
Total Hours		6

## Research Foundations

Code	Title	Hours
SOWK:442	Social Work Research	3
Total Hours		3



## Internship Experience

Code	Title	Hours
CHFD:494	Internship: Child and Family Development	3
Total Hours		3

## CFD Electives and Certificate Courses (Variable credits total)

Code	Title	Hours
<b>CFD Electives and Certificate Courses (Variable credits total):</b>		<b>15+</b>

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
	Mathematics, Statistics and Logic Requirement <sup>2</sup>	3-4
CHFD:201	Intimate Relationships <sup>3</sup>	3
CHFD:265	Child Development <sup>3</sup>	3
PSYC:100	Introduction to Psychology <sup>4</sup>	3
Hours		15-16

### Spring Semester

ENGL:112	English Composition II <sup>1</sup>	3
CHFD:147	Orientation to Child & Family Development	1
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
	Natural Science Requirement	3
	CFD: Human Development Course <sup>5</sup>	3
	Social Science Requirement <sup>7</sup>	3
Hours		16

### 2nd Year

Fall Semester		Hours
	Natural Science Requirement with Lab <sup>8</sup>	4
	Arts Requirement	3
	CFD: Human Development Course <sup>5</sup>	3
	CFD: Early Childhood Programming Course <sup>6</sup>	3
	Humanities Requirement	3
Hours		16

### Spring Semester

	CFD: Family Financial and Consumer Issues Course <sup>9</sup>	3
	Arts or Humanities Requirement	3
	CFD: Family Dynamics Course <sup>10</sup>	3
	Elective, Minor, Certificate, or approved coursework requirement <sup>12</sup>	3
	Domestic Diversity or Global Diversity Requirement <sup>13</sup>	3
Hours		15

### 3rd Year

Fall Semester		Hours
	CFD: Family Financial and Consumer Issues Course <sup>9</sup>	3

	CFD: Family Dynamics course <sup>10</sup>	3
	CFD: Human Development course <sup>5</sup>	3
	CFD: Applications in Child and Family Development course <sup>11</sup>	3
	Minor, Certificate, or Approved coursework requirement <sup>12</sup>	3
Hours		15

### Spring Semester

	CFD: Applications in Child and Family Development course <sup>11</sup>	3
	CFD: Ethics, Law, & Policy Course <sup>15</sup>	3
	CFD: Family Dynamics course <sup>15</sup>	3
CHFD:485	Seminar in Child and Family Development	3
	CFD: Human Development Course <sup>5</sup>	3
Hours		15

### 4th Year

Fall Semester		Hours
	Elective, Minor, Certificate, or Approved coursework requirement <sup>12</sup>	3
	CFD: Human Development Course <sup>5</sup>	3
	CFD: Diversity Issues Course <sup>13</sup>	3
	CFD: Ethics, Law, and Policy Course <sup>14</sup>	3
	Elective, Minor, Certificate, or Approved coursework requirement <sup>12</sup>	3
Hours		15

### Spring Semester

	CFD: Diversity Issues <sup>13</sup>	3
CHFD:494	Internship: Child and Family Development <sup>14</sup>	3
	Minor, Certificate, or Approved coursework requirement <sup>12</sup>	4
	Minor, Certificate, or Approved coursework requirement <sup>12</sup>	3
Hours		13
Total Hours		120-121

<sup>1</sup> For English Composition II, ENGL:112 is the recommended course to meet the General Education Writing requirement. However, ENGL:222 Technical Report Writing also fulfills the English Composition II Writing requirement.

<sup>2</sup> The Child and Family Development recommends STAT:250 Statistics for Everyday Life or STAT:260 Basic Statistics to meet the General Education Mathematics, Statistics and Logic requirement.

<sup>3</sup> A grade of C or better is required in order to be accepted into the Child and Family Development program.

<sup>4</sup> PSYC:100 Introduction to Psychology is a required course Child and Family Development majors must take as one of their General Education Social Science requirements.

<sup>5</sup> 15 credits are required from Human Development:  
CHFD:380 Play and Human Development  
CHFD:365 Infant Development  
CHFD:404 Middle Childhood and Adolescence  
CHFD:442 Human Sexuality  
NUTR:132 Early Childhood Nutrition

- <sup>6</sup> 3 credits are required from Early Childhood Programming:  
 CHFD:245 Infant/Toddler Care and Education Programs  
 CHFD:250 Observing & Recording Children's Behavior  
 CHFD:385 Early Childhood Curriculum Methods  
 CHFD:460 Organization & Supervision of Child Care Centers  
 CHFD:370 Teaching in the Early Childhood Classroom  
 CHFD:375 Teaching in the Early Childhood Classroom Lab
- <sup>7</sup> Recommended: Domestic Diversity SOCIO:100 Introduction to Sociology; or Global Diversity ANTH:251 Human Diversity
- <sup>8</sup> Recommended: ANTH:105 Human Evolution
- <sup>9</sup> 6 credits are required from Family Financial and Consumer Issues:  
 CHFD:301 Consumer Education  
 CHFD:362 Family Resource Management  
 CHFD:406 Family Financial Management
- <sup>10</sup> 9 credits are required from Family Dynamics:  
 CHFD:360 Parent-Child Relations  
 CHFD:440 Family Crisis  
 CHFD:441 Family Relationships in Middle and Later Years
- <sup>11</sup> 9 credits are required from Applications in Child and Family Development:  
 SOWK:442 Social Work Research  
 CHFD:485 Seminar in Child and Family Development (revolving topic)  
 CHFD:496 Parent Education
- <sup>12</sup> All Child and Family Development majors are required to complete one of the following:  
 1) Minor  
 2) Certificate  
 3) \*12 credits of coursework in a single discipline outside of Child and Family Development  
 \*Child and Family Development majors may not minor in Child Development or Family Development.  
 Additionally, Child and Family Development majors must also complete electives coursework from any CHFD courses not elsewhere applied in the major in order to meet the minimum 120 credits for graduation. No more than 5 credits of CHFD:490 Workshop in Child & Family Development can be applied towards the elective requirement. Please check your DPR for course list (See "Child and Family Electives" section in DPR)
- <sup>13</sup> 6 credits are required from Diversity Issues:  
 CHFD:401 American Families in Poverty, CHFD:446 Culture, Ethnicity & Family
- <sup>14</sup> A grade of C or better must be earned in the Capstone Experience course for a total of 5 credits

## Child Development, Minor

### Minor in Child Development (H40207M)

Students who minor in Child Development learn about child development theories, research, and practice. The minor requires 18 credits of coursework in Child and Family Development.

### Requirements for Admission

All students outside the Child and Family Development program may pursue this minor.

The following information has official approval of **The Department of Child & Family Development** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor

is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Child Development" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. A minor in Child Development may only be awarded at the time a student receives a baccalaureate degree. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

### Required Courses

Code	Title	Hours
CHFD:201	Intimate Relationships	3
CHFD:265	Child Development	3
Total Hours		6

### Electives <sup>1</sup>

Code	Title	Hours
<b>Select 12 credits of the following (a minimum of six credits must be at 300/400 level):</b>		
CHFD:245	Infant/Toddler Care and Education Programs	
CHFD:246	Multicultural Issues in Child Care	
CHFD:250	Observing & Recording Children's Behavior	
CHFD:290	Special Topics: Child & Family Development	
CHFD:370	Teaching in the Early Childhood Classroom	
CHFD:375	Teaching in the Early Childhood Classroom Lab	
CHFD:421	Special Problems in Child and Family Development	
CHFD:442	Human Sexuality	
CHFD:448	Programs for School-Aged	
CHFD:461	Case Management for Children & Families I	
CHFD:462	Case Management for Children & Families II	
CHFD:485	Seminar in Child and Family Development	
CHFD:255	Fatherhood: Parent Role	
CHFD:380	Play and Human Development	
CHFD:385	Early Childhood Curriculum Methods	
CHFD:360	Parent-Child Relations	
CHFD:365	Infant Development	
CHFD:401	American Families in Poverty	
CHFD:404	Middle Childhood and Adolescence	
CHFD:446	Culture, Ethnicity & Family	
CHFD:460	Organization & Supervision of Child Care Centers	
CHFD:496	Parent Education	
Total Hours		12

<sup>1</sup> For the elective courses, 9 of the 12 elective credits must be courses not required in the student's major program.

## Early Childhood Programs, Certificate Certificate in Early Childhood Programs (520200C)

This certificate program provides basic vocational training for childcare practitioners. *This certificate may be attained independent of earning a degree.*

The following information has official approval of **The Department of Child & Family Development** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Early Childhood Programs Certificate" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. At least 9 credits throughout the certificate must be taken outside of the student's major coursework.

### Summary

Code	Title	Hours
Required Courses		10
Electives		6
Total Hours		16

### Required Courses

Code	Title	Hours
CHFD:265	Child Development	3
CHFD:385	Early Childhood Curriculum Methods	3
CHFD:370	Teaching in the Early Childhood Classroom <sup>1</sup>	2
CHFD:375	Teaching in the Early Childhood Classroom Lab <sup>1</sup>	2
Total Hours		10

<sup>1</sup> CHFD:370 and CHFD:375 are corequisites and students must have a C or higher to pass each.

### Electives

Code	Title	Hours
<b>Complete 6 credits from the following:</b>		<b>6</b>
CHFD:245	Infant/Toddler Care and Education Programs	
CHFD:246	Multicultural Issues in Child Care	
CHFD:250	Observing & Recording Children's Behavior	
CHFD:460	Organization & Supervision of Child Care Centers	
Total Hours		6

## Family Development, Minor Minor in Family Development (H40206M)

Students who minor in Family Development learn about family sciences theories, research, and practice. The minor requires 18 credits of coursework in Child and Family Development.

### Requirements for Admission

All students outside the Child and Family Development program may pursue this minor.

The following information has official approval of **The Department of Child & Family Development** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Family Development" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

### Summary

Code	Title	Hours
Required Courses		6
Electives		12
Total Hours		18

### Required Courses

Code	Title	Hours
CHFD:201	Intimate Relationships	3
CHFD:265	Child Development	3
Total Hours		6

### Electives <sup>1</sup>

Code	Title	Hours
<b>Select 12 credits of the following:</b>		<b>12</b>
CHFD:255	Fatherhood: Parent Role	
CHFD:290	Special Topics: Child & Family Development	
CHFD:301	Consumer Education	
CHFD:421	Special Problems in Child and Family Development	
CHFD:461	Case Management for Children & Families I	
CHFD:462	Case Management for Children & Families II	
CHFD:403	Home-Based Intervention Theory	
CHFD:464	Home-Based Intervention Techniques & Practice	
CHFD:300	Legal Environment of Families	
CHFD:360	Parent-Child Relations	
CHFD:362	Family Resource Management	
CHFD:401	American Families in Poverty	
CHFD:404	Middle Childhood and Adolescence	
CHFD:440	Family Crisis	
CHFD:441	Family Relationships in Middle and Later Years	

CHFD:442	Human Sexuality	
CHFD:446	Culture, Ethnicity & Family	
CHFD:496	Parent Education	
Total Hours		12

<sup>1</sup> A total of 9 of these 12 elective credits must be courses not required in the student's major program.

## Home Based Intervention Therapy, Certificate

### Certificate in Home Based Intervention Therapy (H40200C)

**\*Admission to program has been suspended\***

#### Program Contact

Dr. Pamela Schulze  
 Director, Center for Family Studies  
 Professor, Child & Family Development  
 330-972-7725  
 Email [schulze@uakron.edu](mailto:schulze@uakron.edu)

The following information has official approval of **The Department of Child & Family Development** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Home Based Intervention Therapy" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. This certificate will be placed on a student's record only at the time a baccalaureate degree is awarded and only if a graduation application is submitted.

## Summary

Code	Title	Hours
Core		9-11
Eligibility Courses		9
Electives		9
Total Hours		27-29

## Core

Code	Title	Hours
1820:403		3
1820:404		3
1820:405		3-5
Total Hours		9-11

## Eligibility Courses

Code	Title	Hours
Select one course from each of the following disciplines (min. 9 credits):		9
	<i>Psychology</i>	

3750:100		
3750:230		
3750:335		
<i>Child and Family Development</i>		
3760:265		
3760:360		
3760:362		
<i>Sociology/Social Work</i>		
3850:100		
3850:340		
7750:276		
7750:455		
Total Hours		9

## Electives

Code	Title	Hours
Select one course from three different disciplines outside major degree area (min. 9 credits):		
<i>Psychology</i>		
3750:400		
3750:420		
3750:430		
<i>Child and Family Development</i>		
3760:401		
3760:404		
3760:440		
3760:442		
<i>Sociology</i>		
3850:410		
3850:412		
3850:430		
3850:450		
<i>Special Education</i>		
5610:440		
5610:459		
<i>Social Work</i>		
7750:451		
7750:452		
7750:454		
Total Hours		9

## Parent and Family Education, Certificate

### Certificate in Parent and Family Education (H40203C)

#### Program Contact

Dr. Pamela Schulze  
 Director, Center for Family Studies  
 Professor, Child & Family Development  
 330-972-7725  
[schulze@uakron.edu](mailto:schulze@uakron.edu)

The following information has official approval of **The Department of Child & Family Development** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Parent and Family Certificate" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Core		9
Electives		6
Total Hours		15

## Core

Code	Title	Hours
3760:265	1	3
3760:360	1	3
3760:496	1	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 6 credits from the following:</b> <sup>2</sup>		<b>6</b>
<i>Child &amp; Family Development</i>		
3760:201		
3760:255		
3760:362		
3760:401		
3760:404		
3760:440		
3760:441		
3760:442		
3760:446		
<i>Social Work</i>		
7750:270		
7750:276		
7750:455		
<i>Psychology</i>		
3750:230		
3750:335		
3750:430		
<i>Sociology</i>		
3850:340		
3850:412		
<i>Special Education</i>		
5610:460		
Total Hours		6

<sup>1</sup> Grades of "C" or better must be earned in the three core courses

<sup>2</sup> Students must successfully complete six credits of coursework selected from the various departmental courses listed. These credits shall be chosen from departments outside the student's disciplines.

## Disaster Science and Emergency Services

The School of Disaster Science and Emergency Services offers programs for individuals seeking careers in three in-demand areas: Emergency Management and Homeland Security, Emergency Medical Services, and Fire Protection Technology. Courses are available online, in traditional classrooms, and in distance learning classes. Students gain hands-on, real-world experience through participation in internships, simulations, and field trips.

The School's programs in **Emergency Management and Homeland Security** (BS) and **Fire Protection Technology** (AAS) are nationally accredited. The **Fire/Medic** option in the **Emergency Medical Services** associate program is in response to a growing demand from emergency service providers.

### Training Center for Fire and Hazardous Materials

This training center brings the University, government agencies, and industries together into one comprehensive regional center to integrate educational programs, fire and hazardous materials training, and other related applications of fire and safety technology.

### The University of Akron / Summit County Sheriff's Office Police Academy

The University of Akron/Summit County Sheriff's Office OPOTA Certified Training Academy is a unique collaboration in law enforcement training. The instructors consist of both experienced law enforcement officers and well-respected University of Akron faculty members.

## Fire Protection Technology

This program prepares persons to serve governmental, industrial, and other fire protection agencies in firefighting and prevention, property protection, and handling emergency situations.

This program is accredited by:

International Fire Service Accreditation Congress (IFSAC)

Oklahoma State University,

1700 West Tyler,

Stillwater, OK 74078-8075

(405)744-8802

ifsac.org (<https://nam03.safelinks.protection.outlook.com/?url=https>

%3A%2F%2Fifsac.org%2F&data=02%7C01%7Csjj%40uakron.edu

%7Ccc73de4654a0492292ce08d6da19ff65%7Ce8575dedd7f94ecea4aa0b32991aee

%7C0%7C0%7C636936202523725337&sdata=8WyoUmmoyecWxB6eNaDHcc

%2FgSkWmtuUqTJ9pArS4TXM%3D&reserved=0)

## Emergency Management and Homeland Security

Emergency Management and Homeland Security studies events or threats, such as natural disasters, terrorist incidents, and technological hazards. Students will acquire specialized knowledge in disaster management through prevention/mitigation, preparedness, response, and recovery actions utilizing an All-Hazards focused approach. This dynamic

discipline prepares graduates for careers in the governmental, corporate, public health, and nonprofit sectors. Emergency Management and Homeland Security can be a career that makes a difference in people's lives.

The program offers a Bachelor of Science degree, along with a minor and certificate, which is accredited by the International Fire Service Accreditation Congress (IFSAC). Students can step-up from a responder-related associate degree, such as criminal justice or fire protection.

This program is accredited by:

International Fire Service Accreditation Congress (IFSAC)  
Oklahoma State University,

1700 West Tyler,

Stillwater, OK 74078-8075

(405)744-8802

ifsac.org (<https://nam03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fifsac.org%2F&data=02%7C01%7Csjj%40uakron.edu%7Ccc%73de4654a0492292ce08d6da19ff65%7Ce8575dedd7f94ecea4aa0b32901eadd%7C0%7C0%7C636936202523725337&sdata=8WyoUmmoyecWxB6eNaDHCQ%2FgSkWmtuUqTJ9pArS4TXM%3D&reserved=0>)

## Emergency Medical Services Technology

This program is for Certified National Registry Emergency Medical Technician-Paramedics seeking to better understand social values and to develop technical knowledge and skills.

- Computer Forensics, Certificate (p. 602)
- Computer Forensics, Minor (p. 602)
- Cyber Disaster Management, Certificate (p. 603)
- Cyber Forensics, BS (p. 603)
- Emergency Management and Homeland Security, 4-Year Option, BS (p. 605)
- Emergency Management and Homeland Security, Certificate (p. 606)
- Emergency Management and Homeland Security, Minor (p. 607)
- Emergency Management and Homeland Security, Step-up Option, BS (p. 608)
- Emergency Medical Services Technology, EMT/Paramedic Option, AAS (p. 609)
- Emergency Medical Services Technology, Fire/Medic Option, AAS (p. 611)
- Fire Protection Technology, AAS (p. 612)
- Fire Protection Technology, Certificate (p. 613)
- Fire Protection Technology, Minor (p. 614)

## Fire Protection Technology (FIRE)

### FIRE:100 Introduction to Fire Protection (4 Credits)

History and philosophy of fire protection; introduction to agencies involved; current legislative developments; discussion of current related problems, expanding future of fire protection and career orientation. (Formerly 2230:100)

### FIRE:102 Fire Safety in Building Design & Construction (3 Credits)

Exploration of building construction and design with emphasis on fire protection concerns; review of related statutory and suggested guidelines local, state and national scope. (Formerly 2230:102)

### FIRE:104 Fire Investigation Methods (4 Credits)

History of fire investigation; gathering of evidence and development of technical reports; fundamentals of arson investigation; processing of criminal evidence and procedures related to local and state statutes. (Formerly 2230:104)

### FIRE:202 Incident Management for Emergency Responders (4 Credits)

Efficient and effective use of human resources, equipment and systems. Emphasis on preplanning, incident management, problem solving related to emergency preparation and response. (Formerly 2230:202)

### FIRE:204 Fire and Life Safety Education (3 Credits)

Application and analysis necessary for the implementation of the Life Safety Code Handbook. (Formerly 2230:204)

### FIRE:205 Fire Detection & Suppression Systems (3 Credits)

Design, installation, maintenance and utilization of portable fire extinguishing appliances and pre-engineered automatic systems; fire detection and alarm signaling systems operational capabilities, requirements. (Formerly 2230:205)

### FIRE:206 Fire Sprinkler System Design (3 Credits)

Design, installation and operation of automatic fire suppression systems. Includes sprinkler, foam, carbon dioxide, dry chemical, halogenated agent systems. (Formerly 2230:206)

### FIRE:250 Hazardous Materials (4 Credits)

Prerequisite: FIRE 100. Study of chemical characteristics and reactions related to storage, transportation and handling of hazardous materials. Emphasis on emergency situations, firefighting and control. (Formerly 2230:250)

### FIRE:254 Fire Prevention (3 Credits)

Prerequisite: FIRE 100. Fire codes and standards relative to fire prevention, inspection, and code enforcement. (Formerly 2230:254)

### FIRE:257 Fire & Safety Issues for Business & Industry (3 Credits)

Industrial fire and safety issues related to specialized hazards, federal and state regulations. Emphasis on emergency response team preparedness, confined space entry, and rescue. (Formerly 2230:257)

### FIRE:260 Fundamentals of Firefighting (3 Credits)

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 261, FIRE 262, and FIRE 263. Course 1 of 4: Minimum training level to function as a firefighter in the State of Ohio, identified in the National Fire Protection Association standards, NFPA 1001. (Formerly 2230:260)

### FIRE:261 Firefighter I (4 Credits)

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 260, FIRE 262, and FIRE 263. Course 2 of 4: Minimum training level to function as a firefighter in the State of Ohio, identified in the National Fire Protection Association standards, NFPA 1001. (Formerly 2230:261)

### FIRE:262 Firefighter II (4 Credits)

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 260, FIRE 261, and FIRE 263. Course 3 of 4: Minimum training level to function as a firefighter in the State of Ohio, identified in the National Fire Protection Association standards, NFPA 1001. (Formerly 2230:262)

**FIRE:263 Emergency Vehicle Operations (1 Credit)**

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 260, FIRE 261, and FIRE 262. Course 4 of 4: Proper operation of an emergency vehicle is critical for fire service providers. The Ohio Emergency Vehicle Operations Course (EVOC) is designed to enhance safe vehicle operation by stressing theory and principles of defensive driving in both emergency and non-emergency situations. Students will learn safe driving practices, defensive driving principles, the responsibilities of an emergency vehicle driver, how to safely operate emergency vehicles during emergent responses, and the difficulties of driving fire apparatus. The course include hands-on driving exercises that will enhance the ability of a student to operate a vehicle during an emergency situation by teaching personal and vehicle control limitations. The course is a requirement to qualify for Ohio Firefighter I and Firefighter II certification. (Formerly 2230:263)

**FIRE:280 Fire Service Administration (4 Credits)**

Prerequisite: FIRE 100. Fire officer professional qualifications; federal, state regulations governing department operations-OSHA, EPA; emergency and non-emergency operations procedures-ICS, IMS, Emergency Operations Center are presented. (Formerly 2230:280)

**FIRE:290 Special Topics: Fire Science Technology (1-4 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission. Selected topics or subject areas of interest in fire protection technology. (Formerly 2230:290)

**FIRE:294 Advanced Fire Investigation Methods (3 Credits)**

Prerequisites: FIRE 100, FIRE 104, FIRE 205, and FIRE 206. Designed to meet student and in service fire investigators need to understand new/ updated technology and methodology in managing fire investigations. (Formerly 2230:294)

**FIRE:295 Field Experience I (2 Credits)**

Prerequisites: 30 credit hours of successfully completed course work in the Fire Protection Technology program which includes FIRE 100, FIRE 102, FIRE 104, FIRE 204, FIRE 205, and FIRE 280 and permission. Course designed to measure the knowledge, skills and abilities required to become a graduate of The University of Akron, Fire Protection Program. (Formerly 2230:295)

**FIRE:296 Field Experience II (2 Credits)**

Prerequisites: 30 credit hours of successfully completed course work in the Fire Protection Technology program which includes FIRE 100, FIRE 102, FIRE 104, FIRE 204, FIRE 205, and FIRE 280. If not currently an active fire fighter, you must take FIRE 295 first. Course designed to measure the knowledge, skills and abilities required to become a front line supervisor, work in hazmat bureau or beginning arson investigator. (Formerly 2230:296)

**FIRE:297 Independent Study: Fire Protection (1-3 Credits)**

Prerequisite: FIRE 100 and permission. Selected topics and special areas of study in fire protection technology under the supervision and evaluation of a selected faculty who assigns specific arrangements. (Formerly 2230:297)

## Emergency Management and Homeland Security (EMHS)

**EMHS:105 Introduction to Disaster, Hazards & Risk (3 Credits)**

Provides a research based and practitioner overview of how people perceive and react to extreme events before, during, and after disasters. (Formerly 2235:105)

**EMHS:201 Police Academy: Administration & Legal (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 202, EMHS 203, EMHS 204 and EMHS 205. Overview of the administration and legal issues of becoming an Ohio Peace Officer. (Formerly 2235:201)

**EMHS:202 Police Academy: Homeland Security (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 203, EMHS 204 and EMHS 205. Overview of human relations, civil disorders, investigation, and homeland security involved in becoming an Ohio Peace Officer. (Formerly 2235:202)

**EMHS:203 Police Academy: Traffic (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 202, EMHS 204 and EMHS 205. Overview of motor vehicle offenses, traffic crash investigation, speed measuring and sobriety testing required to pass the Ohio Peace Officer Training program. (Formerly 2235:203)

**EMHS:204 Police Academy: Practicals I (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 202, EMHS 203 and EMHS 205. Classroom and practical skills training in firearms, patrol, and driving to satisfy all state requirements for the Ohio Peace Officer Training Program. (Formerly 2235:204)

**EMHS:205 Police Academy: Practicals II (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 202, EMHS 203 and EMHS 204. Classroom and skills in defense tactics, physical fitness and First Aid/CPR/AED & WMD Awareness to satisfy requirements to become an Ohio Peace Officer. (Formerly 2235:205)

**EMHS:210 Occupational Safety & Risk (3 Credits)**

Introduction to the field of health and safety as related to business and industrial operations. Emphasis is placed on hazard/risk analysis and the regulatory environment. (Formerly 2235:210)

**EMHS:220 Environmental Law & Regulations (3 Credits)**

Introduction to the legal system and to the laws and regulations dealing with water, air, land, noise and other sources of pollution. (Formerly 2235:220)

**EMHS:221 Environmental Law & Regulations II (3 Credits)**

Prerequisite: EMHS 220 and permission. Designed to provide students the opportunity to apply common regulatory reporting mechanisms in a practical manner utilizing a variety of software programs recognized in the environmental field. (Formerly 2235:221)

**EMHS:230 Water & Atmospheric Pollution (3 Credits)**

Prerequisites: EMHS 105 and 3100:104. Basic concepts of aquatic and atmospheric systems and the processes which pollute them. Emphasis on control and monitoring of cultural, industrial, and agricultural pollution sources. Laboratory. (Formerly 2235:230)

**EMHS:232 Environmental Sampling Laboratory (2-3 Credits)**

Corequisite: EMHS 230. Field experience with a wide range of environmental sampling techniques and equipment. (Formerly 2235:232)

**EMHS:285 Disasters in Film and Media (3 Credits)**

Examines how contemporary culture perpetuates myths of natural and technological disasters. Students deconstruct and analyze reality from the myths in various types of media. (Formerly 2235:285)

**EMHS:305 Principals of Emergency Management and Homeland Security (3 Credits)**

An overview of emergency management and homeland security history, theory, terms, concepts, organization, and roles. Emphasizes natural and technological hazards, and risk assessment processes. (Formerly 2235:305)

**EMHS:340 Disaster Research Methods (3 Credits)**

Introduction to scientific method and processes, research ethics, and qualitative and quantitative methods. Use of research for appropriate decision making. (Formerly 2235:340)

**EMHS:350 Disaster Preparedness & Response (3 Credits)**

Prerequisite: EMHS 305. Legal requirement, planning formats, and response procedures are presented. Special focus community risk assessment: hazard analysis, vulnerability assessment, and community response capability assessment. (Formerly 2235:350)

**EMHS:360 Introduction to Terrorism (3 Credits)**

Corequisite: EMHS 305. Examines terrorism from historical, international, transnational, and domestic perspectives. Includes political and religious terrorism along with emergency management considerations. (Formerly 2235:360)

**EMHS:365 Disaster Mitigation (3 Credits)**

Prerequisite: EMHS 305. Examines disaster prevention and risk reduction. Focuses on such concepts as sustainability, resiliency, non-structural and structural mitigation and various sectors' responsibilities. (Formerly 2235:365)

**EMHS:367 Disaster Recovery (3 Credits)**

Prerequisite: EMHS 305. Provides foundations for disaster relief and recovery planning, stages of recovery, resources used, and formation of public/private partnerships for recovery action and resource allocation. (Formerly 2235:367)

**EMHS:368 Professionalism in Emergency Management and Homeland Security (3 Credits)**

Prepares students for career entry into Emergency Management and Homeland Security areas. Professionalism, resume building, interview techniques, and resource sites will be examined. (Formerly 2235:368)

**EMHS:370 Hazard Science and Management (3 Credits)**

Overview of hazards theory, the science of hazard development, and various hazard types. Emphasis on emergency management and homeland security perspectives in regard to various hazard management related topics. (Formerly 2235:370)

**EMHS:384 Intelligence: Cyber and Homeland Security (3 Credits)**

This course introduces students to the role and operation of the intelligence community within the homeland security framework: History, mission, structure, capabilities, and methods. (Formerly 2235:384)

**EMHS:401 Crisis Leadership (3 Credits)**

This course presents leadership research from an interdisciplinary perspective. Content is drawn the fields of business, training, simulation, organizational theory, government, and others. This course covers early leadership theory, horizontal theories, crisis training models and approaches, and crisis cognitive processing strategies. Students will examine the overall system of building better crisis leaders. (Formerly 2235:401)

**EMHS:406 Disaster Management Technology (3 Credits)**

Prerequisite: EMHS 305. Provides an overview of the various types of technology utilized in disasters, emergency management and homeland security. Topics include communications, watches, warnings, and operational challenges. (Formerly 2235:406)

**EMHS:407 Hazardous Weather Observations (3 Credits)**

Overview of meteorological variables and weather data useful to EM including meteorological instruments, forecasts, model, radar and satellite imagery, thunderstorms, tornadoes, winter storms and hurricanes. (Formerly 2235:407)

**EMHS:420 Disaster Vulnerability (3 Credits)**

Prerequisite: EMHS 305. Analysis of citizen actions regarding major disasters including perspectives of individuals and emergency managers using case studies, theories, and social problems. (Formerly 2235:420)

**EMHS:425 Private Sector Disaster Applications (3 Credits)**

Prerequisite: EMHS 305. Examines emergency management and homeland security business components in the private and public sectors. Emphasizes business continuity plans along with case studies in hazards and disasters. (Formerly 2235:425)

**EMHS:430 Contemporary Issues in Emergency Management and Homeland Security (3 Credits)**

Discussion of relevant issues impacting the field of emergency management and homeland security by analyzing various case studies. (Formerly 2235:430)

**EMHS:435 Cyber Issues in Emergency Management and Homeland Security (3 Credits)**

Prerequisite: EMHS 305. Discussion and analysis of cyber issues impacting the public, private, and nonprofit sectors of emergency management and homeland security. (Formerly 2235:435)

**EMHS:480 Emergency Management & Homeland Security Capstone (3 Credits)**

Prerequisite or Corequisite: EMHS 495. Ties together relevant concepts in emergency management and homeland security to help prepare graduates for professional careers integrating theory and applications. (Formerly 2235:480)

**EMHS:485 Cyber Forensics Capstone (4 Credits)**

Prerequisites: Senior standing in the Cyber Forensics program and placement by an advisor. This is the senior capstone course for the Cyber Forensics degree. This course is a culminating experience class in which issues in cyber forensics will be examined, applied, and analyzed into the broader application of societal contexts and issues. (Formerly 2235:485)  
**Gen Ed:** - Capstone

**EMHS:490 Current Topics in Emergency Management (1-4 Credits)**

Prerequisites: EMHS 305 and EMHS 350. A variety of course topics on current subjects related to emergency management and disaster preparedness. May be repeated for up to 12 credits. (Formerly 2235:490)

**EMHS:493 Cyber Forensics Internship (3 Credits)**

Prerequisites: Junior or greater standing in the Cyber Forensics program and placement by an advisor. This course provides the student with an experience in digital technology in the workplace. Each student is required to meet with an instructor to discuss and examine the workplace experience. (Formerly 2235:493)

**EMHS:495 Emergency Management & Homeland Security Internship (3 Credits)**

Prerequisite: 30 hours in program and permission from program director. Supervised work experience in emergency management and/or homeland security to increase student understanding by applying program education to an applied work experience. (Formerly 2235:495)



**EMHS:497 Independent Study in Emergency Management (1-4 Credits)**

Prerequisites: EMHS 305 and EMHS 350. Selected topics, special areas of study in emergency management, disaster preparedness under the supervision of a faculty member with whom specific arrangements have been made. (Formerly 2235:497)

**Emergency Medical Services (EMSP)****EMSP:100 Introduction to EMT Training (3 Credits)**

Corequisites: EMSP 101 and EMSP 102. Overview of the EMS System, safety/well being of an EMT, medical/legal and ethical issues in providing emergency care. (Formerly 2240:100)

**EMSP:101 EMT-B Fundamentals (2 Credits)**

Corequisite: EMSP 100. Develop skills required of EMT-Basic for Assessment, air way management, patient evaluation for shock, trauma/ special needs patient, learn appropriate interventions for all situations. (Formerly 2240:101)

**EMSP:102 EMT-B Fundamentals II (2 Credits)**

Corequisites: EMSP 100 and EMSP 101. Provide students with the tools to start the EMT-Basic course and will prepare students to achieve national certification as an EMT-Basic. (Formerly 2240:102)

**EMSP:201 Fundamentals of EMT-Paramedic I (3 Credits)**

Corequisites: EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Introduction to emergency medical care-paramedic, the well-being of the EMT-paramedic, and illness and injury prevention. (Formerly 2240:201)

**EMSP:202 Fundamentals of EMT-Paramedic II (3 Credits)**

Corequisites: EMSP 201, EMSP 203, EMSP 204, and EMSP 205. Instruction in medical/legal issues, ethics, and the paramedic, and general principles of anatomy and physiology. (Formerly 2240:202)

**EMSP:203 Fundamentals of EMT-Paramedic III (3 Credits)**

Corequisites: EMSP 201, EMSP 202, EMSP 204, and EMSP 205. Instruction in medical math, pharmacology, venous access, and medication administration. (Formerly 2240:203)

**EMSP:204 Fundamentals of EMT-Paramedic IV (3 Credits)**

Corequisites: EMSP 201, EMSP 202, EMSP 203, and EMSP 205. Instruction includes therapeutic communications, life span development, and airway management/ventilation. (Formerly 2240:204)

**EMSP:205 Fundamentals of EMT-Paramedic V (3 Credits)**

Corequisites: EMSP 201, EMSP 202, EMSP 203, and EMSP 204. Skill Session Practices, competency Testing from skills learned throughout the semester. (Formerly 2240:205)

**EMSP:206 Fundamentals of EMT-Paramedic VI (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 207, EMSP 208, EMSP 209, and EMSP 211. Instruction in respiratory emergencies and cardiovascular emergencies. (Formerly 2240:206)

**EMSP:207 Fundamentals of EMT-Paramedic VII (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 208, EMSP 209, and EMSP 211. Instruction in cardiovascular emergencies, diabetic emergencies, and allergic reactions. (Formerly 2240:207)

**EMSP:208 Fundamentals of EMT-Paramedic VIII (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 207, EMSP 209, and EMSP 211. Instruction in paramedic skills, practical trauma, and medical skills practical. (Formerly 2240:208)

**EMSP:209 Fundamentals of EMT-Paramedic IX (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 207, EMSP 208, and EMSP 211. Medical skills practical and skills testing. (Formerly 2240:209)

**EMSP:211 Fundamentals of EMT-Paramedic X (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 207, EMSP 208, and EMSP 209. Practical skills testing, client orientation, and written skills testing. (Formerly 2240:211)

**Digital Forensic Technology (DGFR)****DGFR:100 Introduction to Digital Forensics (3 Credits)**

An overview of digital forensics and computer-related issues facing government and businesses. Specific focus on forensic examinations and methodologies used in the field. (Formerly 2235:100)

**DGFR:280 Cybercrime (3 Credits)**

Examines crime and deviance in cyberspace. Particular focus is on the prevention of computer intrusion in the workplace. (Formerly 2235:280)

**DGFR:281 Computer Forensic Methods (3 Credits)**

Prerequisite: DGFR 100. Examination of computer forensic methods employed to identify, collect, recover, authenticate, preserve, analyze, and document electronic evidence for criminal or civil legal purposes. (Formerly 2235:281)

**DGFR:282 Digital Forensic Imaging (3 Credits)**

Prerequisite: DGFR 100 or CRJU 100. This course cover the general principles of photography and practical elements and advanced concepts of forensic photography. (Formerly 2235:282)

**DGFR:283 Cyber Warfare (3 Credits)**

Prerequisite: DGFR 280. Examines the participants, tools and techniques in digital conflicts and explores how to defend against espionage, hactivism, non-state actors and terrorists. (Formerly 2235:283)

**DGFR:284 Windows Forensics (3 Credits)**

Prerequisite: DGFR 281. An examination of the tools, methodology, and advanced digital forensic analysis of the Windows Registry and the Microsoft Windows operating systems. (Formerly 2235:284)

**DGFR:381 Computer Forensic Methods II (3 Credits)**

Prerequisite: DGFR 281. Obtaining and analyzing digital information from computer storage media to determine details of origin and content. (Formerly 2235:381)

**DGFR:382 File System Analysis (3 Credits)**

Prerequisite: DGFR 281. The analysis of volumes, partitions, and data files to understand the design of file systems and data structures. (Formerly 2235:382)

**DGFR:383 Ethical Hacking (3 Credits)**

Prerequisite: DGFR 283. An examination of the tools, methods, and structured approaches to conducting basic security testing to protect computer networks from attacks. (Formerly 2235:383)

**DGFR:440 Intrusion Detection (3 Credits)**

Prerequisites: DGFR 441 and CISS 388, both with a grade of C or better, and junior or greater standing. This course will introduce students to the various methods used to detect external and internal intrusion of computer systems. (Formerly 2235:440)

**DGFR:441 Network Forensics I (3 Credits)**

Prerequisites: DGFR 281 with a grade of C or better and junior or greater standing. This course will provide the student with basic knowledge of surveillance of networking devices, identifying and preventing attacks and incident response. (Formerly 2235:441)

**DGFR:442 Wireless Forensics (3 Credits)**

Prerequisite: DGFR 441 with a grade of C or better and junior or greater standing. The forensic identification and tracking of attacks on wireless networks and mobile communications devices. (Formerly 2235:442)

**DGFR:443 Network Forensics II (3 Credits)**

Prerequisite: DGFR 441 with a grade of C or better or junior or greater standing. Deployment, building and running an NSM operation using open source software and vendor neutral tools with the Linx Operating System (Formerly 2235:443)

**DGFR:480 Digital and Scientific Evidence (3 Credits)**

Prerequisite: CRJU 104. Examination of the role of scientific and digital evidence in the legal system. Courtroom admissibility and presentation rules are covered. (Formerly 2220:480)

## Computer Forensics, Certificate

### Certificate in Computer Forensics (225001C)

The Computer Forensics Certificate provides an educational foundation in both the legal and technical aspects of computer crime investigation. Students explore the criminology of high technology crime, criminal law as it applies to digital evidence, the investigative process, and professional communication. Students will gain hands-on experience with contemporary forensic tools and receive technical instruction in computer hardware, networks, and operating systems. Individuals working in the legal and investigative fields that seek to enhance their technical skills and beginners with a general interest in the subject area are welcome.

This certificate may be earned independent of earning a degree.

**Program Contact**

Stanley Smith  
Polsky 318  
330-972-6950  
shsmith@uakron.edu

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences** but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Computer Forensics" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		21
Total Hours		21

## Required Courses

Code	Title	Hours
DGFR:280	Cybercrime	3
DGFR:281	Computer Forensic Methods	3
CISS:145	Introduction to Unix/Linux	3

CISS:201	Networking Basics	3
CISS:247	Hardware Support	3
CRJU:100	Introduction to Criminal Justice	3
CRJU:286	Courtroom Communication	3
Total Hours		21

## Computer Forensics, Minor

### Minor in Computer Forensics (225001M)

The Computer Forensics Minor provides an educational foundation in both the legal and technical aspects of computer crime investigation. Students explore the criminology of high technology crime, criminal law as it applies to digital evidence, the investigative process, and professional communication. Students will gain hands-on experience with contemporary forensic tools and receive technical instruction in computer hardware, networks, and operating systems. Individuals working in the legal and investigative fields that seek to enhance their technical skills and beginners with a general interest in the subject area are welcome.

**Program Contact**

Stanley Smith  
Polsky 318  
330-972-6950  
shsmith@uakron.edu

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Computer Forensics" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		21
Total Hours		21

## Required Courses

Code	Title	Hours
DGFR:280	Cybercrime	3
DGFR:281	Computer Forensic Methods	3
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics	3
CISS:247	Hardware Support	3
CRJU:100	Introduction to Criminal Justice	3
CRJU:286	Courtroom Communication	3
Total Hours		21

# Cyber Disaster Management, Certificate

## Certificate in Cyber Disaster Management (223503C)

### Program Contact

Dr. Stacey Willett  
Polsky 314  
330-972-8317  
smuffet@uakron.edu

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Cyber Disaster Management" and must be completed with a minimum grade point average of 2.0 over-all for the certificate to be noted on the student's record. The granting of this certificate does not require completion of a degree.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
DGFR:100	Introduction to Digital Forensics	3
DGFR:283	Cyber Warfare	3
EMHS:305	Principals of Emergency Management and Homeland Security	3
EMHS:360	Introduction to Terrorism	3
EMHS:384	Intelligence: Cyber and Homeland Security	3
EMHS:435	Cyber Issues in Emergency Management and Homeland Security	3
Total Hours		18

# Cyber Forensics, BS

## Bachelor of Science in Cyber Forensics (244304BS)

### Program Contact

Dr. Stacey Willett  
Polsky 314  
330-972-8317  
smuffet@uakron.edu

## Program Description

The Cyber Forensics Bachelor's Degree housed in the School of Disaster Science and Emergency Services allows students to attain knowledge of

digital forensics, computer network forensics, and develop applied skills to qualify for such positions as law enforcement professionals, digital forensics analyst, and cyber forensics analyst. Students will combine classroom experiences with virtual resources from the Musson ICS Testbed and The University of Akron Regional Programming Center Cyber Range.

## Requirements for Admission

To be admitted into the College of Health and Human Sciences, a student must have a GPA of 2.0. A student can complete the transfer process through an appointment with an Academic Advisor in the college of which they reside.

## Department Policy

- **Students must attain a C or better in each course in their major area.**
- A cumulative GPA of 2.0 GPA and a minimum of 15 earned credit hours for Inter- and Intra- College Transfer into all Associate and Bachelor's degree programs.
- Prior to enrolling in classes for the B.S. degree you must contact an advisor in Polsky 301.

## Career Information

Graduates of the program are expected to qualify for such positions as law enforcement professionals, computer forensic specialists, data security analysts, systems security administrators, and network security administrators in government, business, information technology, and other industries.

For additional information please visit the Bureau of Labor Statistics ([www.bls.gov](http://www.bls.gov)) or visit the Career Center at Simmons Hall Room 301 (<http://www.uakron.edu/career>).

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. The College of Applied Science and Technology recommends that students take the General Education courses listed in this recommended sequence. Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements

### Summary

Code	Title	Hours
General Education Requirements (p. 31) *		31
Cyber Forensics Major Core		80
Electives		9
Total Hours		120

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Cyber Forensics Major Core

Code	Title	Hours
DGFR:100	Introduction to Digital Forensics	3
DGFR:280	Cybercrime	3
DGFR:281	Computer Forensic Methods	3
DGFR:382	File System Analysis	3
DGFR:441	Network Forensics I	3
DGFR:381	Computer Forensic Methods II	3
DGFR:283	Cyber Warfare	3
DGFR:443	Network Forensics II	3
DGFR:383	Ethical Hacking	3
EMHS:493	Cyber Forensics Internship	3
DGFR:284	Windows Forensics	3
DGFR:442	Wireless Forensics	3
DGFR:440	Intrusion Detection	3
EMHS:485	Cyber Forensics Capstone	4
DGFR:480	Digital and Scientific Evidence	3
CRJU:100	Introduction to Criminal Justice	3
CRJU:104	Evidence & Criminal Legal Process	3
CRJU:102	Principles of Criminal Law	3
CRJU:251	Criminal Investigation	3
CRJU:298	Applied Ethics in Criminal Justice	3
or PHIL:363	Ethics of Policing	
or PHIL:364	Digital Ethics	

CRJU:307	Foundations of Crime Analysis	3
PHIL:120	Introduction to Ethics	3
STAT:250	Statistics for Everyday Life	4
CISS:145	Introduction to Unix/Linux	3
CISS:201	Networking Basics	3
CISS:430	Network Monitoring and Management	3
Total Hours		80

## Electives

Code	Title	Hours
<b>Complete 9 credits:</b>		<b>9</b>
EMHS:xxx		
CRJU:xxx		
CISS:134	Cybersecurity Fundamentals	
CISS:450	Applied Data Mining	
MATH:361	Applied Cryptography	
Total Hours		9

## Recommended Sequence

1st Year		Hours
<b>Fall Semester</b>		
ENGL:111	English Composition I	3
STAT:250	Statistics for Everyday Life	4
DGFR:100	Introduction to Digital Forensics	3
CRJU:100	Introduction to Criminal Justice	3
COMM:263	Professional Communications and Presentations	3
Hours		16
<b>Spring Semester</b>		
ENGL:222	Technical Report Writing	3
CRJU:104	Evidence & Criminal Legal Process	3
CRJU:102	Principles of Criminal Law	3
PHIL:120	Introduction to Ethics	3
CISS:145	Introduction to Unix/Linux	3
Hours		15
<b>2nd Year</b>		
<b>Fall Semester</b>		
SOCIO:100	Introduction to Sociology	3
POLIT:100	Government & Politics in the United States	3
CRJU:251	Criminal Investigation	3
DGFR:280	Cybercrime	3
Natural Science with Lab Requirement		4
Hours		16
<b>Spring Semester</b>		
SOCIO:243	Contemporary Global Issues	3
DGFR:281	Computer Forensic Methods	3
CRJU:298	Applied Ethics in Criminal Justice	3
or PHIL:363	or Ethics of Policing	
or PHIL:364	or Digital Ethics	
Elective EMHS:xxx or CRJU:xxx		3
CISS:201	Networking Basics	3
Hours		15

**3rd Year****Fall Semester**

DGFR:382	File System Analysis	3
DGFR:441	Network Forensics I	3
DGFR:381	Computer Forensic Methods II	3
DGFR:283	Cyber Warfare	3
	Natural Science Requirement	3
	Hours	15

**Spring Semester**

CRJU:307	Foundations of Crime Analysis	3
DGFR:443	Network Forensics II	3
DGFR:383	Ethical Hacking	3
EMHS:493	Cyber Forensics Internship	3
	Elective EMHS:xxx or CRJU:xxx	3
	Hours	15

**4th Year****Fall Semester**

ART:210 or MUSIC:201 or DNCE:265	Visual Arts Awareness or Exploring Music: Bach to Rock or Viewing Dance	3
DGFR:480	Digital and Scientific Evidence	3
DGFR:284	Windows Forensics	3
DGFR:442	Wireless Forensics	3
	Arts/Humanities Requirement	3
	Hours	15

**Spring Semester**

DGFR:440	Intrusion Detection	3
EMHS:485	Cyber Forensics Capstone	4
CISS:430	Network Monitoring and Management	3
	Elective EMHS:xxx or CRJU:xxx	3
	Hours	13
	Total Hours	120

## Emergency Management and Homeland Security, 4-Year Option, BS

### Bachelor of Science in Emergency Management and Homeland Security, 4-Year Option (223501BS)

#### Program Contact

Dr. Stacy Willett  
Program Lead Faculty  
The Polsky Building 314  
330-972-8317  
smuffet@uakron.edu

#### Program Information

Emergency Management and Homeland Security studies events or threats such as natural disasters, terrorist incidents, and technological hazards. Students will acquire specialized knowledge in disaster management through prevention/mitigation, preparedness, response,

and recovery actions utilizing an "All-Hazards" focused approach. This dynamic discipline prepares graduates for careers in the governmental, corporate, public health, and nonprofit sectors. Emergency Management and Homeland Security can be a career that makes a difference in people's lives. The program offers a Bachelor of Science degree, along with a minor and certificate. There are two program pathways: Students can step-up from responder related Associates Degrees such as criminal justice or fire protection or students can choose to follow a traditional bachelor's degree curriculum. All university general education requirements must be completed as outlined in this Bulletin.

This program is accredited by:

International Fire Service Accreditation Congress (IFSAC)  
Oklahoma State University  
1700 West Tyler  
Stillwater, OK 74078-8075  
Phone: (405) 744-8802  
[www.ifsac.org](http://www.ifsac.org) (<http://www.ifsac.org>).

#### Career Information

The Bachelor's degree in Emergency Management and Homeland Security prepares students to enter and advance in the field of emergency management through the acquisition of specialized knowledge of disaster planning, preparedness, emergency response, mitigation and recovery. Service learning is incorporated in course work with joint projects involving county emergency management/ homeland security agencies as well as schools and non-profit agencies. In addition, The University of Akron has faculty who are nationally recognized in the field of emergency management, homeland security, geography, hazards, business, education, and leadership.

This degree program supports the primary goal of the Federal Emergency Management Agency (FEMA) Higher Education Project to encourage and support the implementation of emergency management and homeland security education in colleges and universities across the United States. This program has incorporated disaster based research as an area of specialization which will make this program unique from other emergency management and homeland security programs. In addition, disaster management is taught from a well-rounded perspective that includes the public and private sector equally.

For additional information visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) (<http://www.bls.gov>) or the Career Center at the Student Union, room 211.

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**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
EMHS:105	Introduction to Disaster, Hazards & Risk	3
STAT:250	Statistics for Everyday Life	4
	Natural Science Requirement with Lab	4
Hours		14

### Spring Semester

ENGL:222 or ENGL:112	Technical Report Writing or English Composition II	3
POLIT:419	Homeland Security Policy and Process	3
SOCIO:100 or GEOG:100	Introduction to Sociology or Introduction to Geography	3
	Natural Science Requirement	3
Select one of the following:		3
COMM:263	Professional Communications and Presentations	
	Speaking Requirement	
Hours		15

### 2nd Year

#### Fall Semester

EMHS:360 or POLIT:337	Introduction to Terrorism or Terrorism: Perpetrators, Politics and Response	3
SURV:101 or GEOG:405	Basic Surveying or Geographic Information Systems	3
PHIL:120	Introduction to Ethics	3
	Specialty Block Credits	6
Hours		15

#### Spring Semester

EMHS:305	Principals of Emergency Management and Homeland Security	3
SURV:445	Applications in GIS using GPS	3
HIST:210 or HIST:221	Humanities in the Western Tradition from Ancient Times to 1500 or Humanities in the World since 1300	3
	Specialty Block Credits	3
Select one of the following:		3
PAFS:256	Diversity in American Society	
SOWK:244	Death & Dying	
	Domestic Diversity Requirement	
Hours		15

### 3rd Year

#### Fall Semester

EMHS:340	Disaster Research Methods	3
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EMHS:350	Disaster Preparedness & Response	3
EMHS:365	Disaster Mitigation	3
EMHS:xxx	Emergency Management and Homeland Security Approved Elective	3
Select one of the following:		3
ART:210	Visual Arts Awareness	
MUSIC:201	Exploring Music: Bach to Rock	
DNCE:265	Viewing Dance	
	Arts Requirement	
Hours		15

#### Spring Semester

EMHS:367	Disaster Recovery	3
EMHS:370	Hazard Science and Management	3
EMHS:xxx	Emergency Management and Homeland Security Approved Elective	3
	Specialty Block Credits	6
Hours		15

### 4th Year

#### Fall Semester

EMHS:401	Crisis Leadership	3
EMHS:420	Disaster Vulnerability	3
EMHS:495	Emergency Management & Homeland Security Internship	3
EMHS:xxx	Emergency Management and Homeland Security Approved Elective	6
Hours		15

#### Spring Semester

EMHS:480	Emergency Management & Homeland Security Capstone	3
PHIL:241	Technology & Human Values	3
SOCIO:243	Contemporary Global Issues	3
EMHS:xxx	Emergency Management and Homeland Security Approved Elective	6
Hours		15
Total Hours		119

<sup>1</sup> Students should be aware that most internship sites require a background check. If students are unable to pass a background check, internship placement cannot be guaranteed. Accordingly, job placement will be difficult. Please meet with the Program Lead to discuss this.

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

## Emergency Management and Homeland Security, Certificate

### Certificate in Emergency Management and Homeland Security (223102C)

The discipline of emergency management continues to evolve. Emergency management is becoming more complex and there is a

demand for well-educated individuals in both the private and public sectors.

These courses provide emergency management foundations which can be applied to many careers including but not limited to: crisis management, business continuity, health services, public administration, political science, geography, homeland security, communications, and computer information systems or related areas. The courses offered provide emergency management skills useful in many careers whether as a student or a practitioner looking to expand their knowledge.

The granting of this certificate does not require completion of a degree.

#### Program Contact

Dr. Stacy Willett  
Program Lead Faculty  
Polsky 314  
330-972-8317  
smuffet@uakron.edu

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Emergency Management and Homeland Security" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		9
Electives		12
Total Hours		21

## Required Courses

Code	Title	Hours
EMHS:305	Principals of Emergency Management and Homeland Security	3
EMHS:350	Disaster Preparedness & Response	3
EMHS:370	Hazard Science and Management	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select 12 credits of the following Emergency Management Electives: 12</b>		
EMHS:285	Disasters in Film and Media	
EMHS:340	Disaster Research Methods	
EMHS:360	Introduction to Terrorism	
EMHS:365	Disaster Mitigation	
EMHS:367	Disaster Recovery	
EMHS:401	Crisis Leadership	
EMHS:425	Private Sector Disaster Applications	

EMHS:490 Current Topics in Emergency Management

Total Hours

12

## Emergency Management and Homeland Security, Minor

### Minor in Emergency Management and Homeland Security (223500M)

This discipline of emergency management continues to evolve, becoming more complex. There is a demand for well-educated individuals in both the private and public sectors.

This minor allows students in other disciplines to incorporate an emergency management background with their degree program. Some of the disciplines that complement a minor in Emergency Management include communications, computer information sciences, political science, geography, public health, sociology and business. The courses offered will provide Emergency Management foundations useful in many careers and disciplines.

A minor in EMHS may only be awarded at the time a student receives a baccalaureate degree.

#### Program Contact

Dr. Stacy Willett  
Polsky 314  
330-972-8317  
smuffet@uakron.edu

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Emergency Management and Homeland Security" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		9
Electives		9
Total Hours		18

## Required Courses

Code	Title	Hours
EMHS:305	Principals of Emergency Management and Homeland Security	3
EMHS:350	Disaster Preparedness & Response	3
EMHS:370	Hazard Science and Management	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Select nine credits of the following Emergency Management Electives:</b>		<b>9</b>
EMHS:285	Disasters in Film and Media	
EMHS:340	Disaster Research Methods	
EMHS:360	Introduction to Terrorism	
EMHS:365	Disaster Mitigation	
EMHS:367	Disaster Recovery	
EMHS:401	Crisis Leadership	
EMHS:420	Disaster Vulnerability	
EMHS:425	Private Sector Disaster Applications	
EMHS:490	Current Topics in Emergency Management	
Total Hours		9

## Emergency Management and Homeland Security, Step-up Option, BS

### Bachelor of Science in Emergency Management and Homeland Security, Step-up Option (223500BS)

#### Program Contact

Dr. Stacy Willett  
 Program Lead Faculty  
 The Polsky Building 314  
 330-972-8317  
 smuffet@uakron.edu

#### Program Information

Emergency Management and Homeland Security studies events or threats such as natural disasters, terrorist incidents, and technological hazards. Students will acquire specialized knowledge in disaster management through prevention/mitigation, preparedness, response, and recovery actions utilizing an All-Hazards focused approach. This dynamic discipline prepares graduates for careers in the governmental, corporate, public health, and nonprofit sectors. Emergency Management and Homeland Security can be a career that makes a difference in people's lives. The program offers a Bachelor of Science degree along with a minor and certificate which is accredited by the International Fire Service Accreditation Congress (IFSAC). Students can step-up from responder related Associates Degrees such as criminal justice or fire protection. Students can also choose to follow a traditional college program with little or no bridgework. All university general education requirements must be completed as outlined in this Bulletin.

This program prepares students who have completed a minimum of 60 semester hours in subjects including, but not limited to, fire protection, criminal justice, community services, environmental health and safety, or other related areas to enter the field of emergency management in either the public or private sectors. Students will acquire specialized knowledge in preparedness, mitigation, response, and recovery in regard to an all hazards approach. **Students without this coursework must meet with**

**the program director or an academic adviser to discuss required "bridge" coursework.**

This program is accredited by:

International Fire Service Accreditation Congress (IFSAC)  
 Oklahoma State University  
 1700 West Tyler  
 Stillwater, OK 74078-8075  
 Phone: (405) 744-8802  
[www.ifsac.org](http://www.ifsac.org) (<http://www.ifsac.org/>)

## Career Information

The Bachelor's degree in Emergency Management and Homeland Security prepares students to enter and advance in the field of emergency management through the acquisition of specialized knowledge of disaster planning, preparedness, emergency response, mitigation and recovery. As a "Step-Up" degree, it is built upon strong technical programs. Service learning is incorporated in course work with joint projects involving county emergency management agencies as well as schools and non-profit agencies. In addition, The University of Akron has faculty who are nationally recognized in the field of emergency management as well as geography, hazards, business, education, and leadership.

This degree program supports the primary goal of the Federal Emergency Management Agency (FEMA) Higher Education Project to encourage and support the implementation of emergency management education in colleges and universities across the United States. We have incorporated emergency management and homeland security research as our area of specialization which will make us unique from other programs. In addition, we teach emergency management and homeland security from a well-rounded perspective that includes the public and private sector equally.

For additional information visit the Bureau of Labor Statistics at [www.bls.gov](http://www.bls.gov) (<http://www.bls.gov>) or the Career Center at the Student Union, room 211.

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#### 3rd Year

Fall Semester		Hours
EMHS:305	Principals of Emergency Management and Homeland Security	3
EMHS:340	Disaster Research Methods	3
EMHS:360	Introduction to Terrorism <sup>1</sup>	3
STAT:250	Statistics for Everyday Life	4



SOCIO:243	Contemporary Global Issues	3
	Hours	16
<b>Spring Semester</b>		
EMHS:350	Disaster Preparedness & Response	3
EMHS:370	Hazard Science and Management	3
HIST:210 or HIST:221	Humanities in the Western Tradition from Ancient Times to 1500 or Humanities in the World since 1300	3
SURV:101	Basic Surveying	3
SOWK:244 or PAFS:256	Death & Dying or Diversity in American Society	3
	Domestic Diversity Requirement	
	Hours	15
<b>4th Year</b>		
<b>Fall Semester</b>		
EMHS:365	Disaster Mitigation	3
EMHS:367	Disaster Recovery	3
SURV:445	Applications in GIS using GPS	3
SURV:201 or SURV:205	Intermediate Geographic and Land Information Systems or Building Geodatabases	3
PHIL:120	Introduction to Ethics	3
Select one of the following:		3
EMHS:490	Current Topics in Emergency Management <sup>2</sup>	
EMHS:xxx	Approved Emergency Management Elective <sup>2</sup>	
	Hours	18
<b>Spring Semester</b>		
EMHS:420	Disaster Vulnerability	3
EMHS:495	Emergency Management & Homeland Security Internship	3
	Natural Science Requirement	3-4
	Complex Issues Requirement	3
Select one of the following:		3
ART:210	Visual Arts Awareness	
MUSIC:201	Exploring Music: Bach to Rock	
DNCE:265	Viewing Dance	
	Arts Requirement	
Select one of the following:		3
EMHS:490	Current Topics in Emergency Management <sup>2</sup>	
EMHS:xxx	Approved Emergency Management Electives <sup>2</sup>	
	Hours	18-19
	Total Hours	67-68

<sup>1</sup> Traditionally offered Fall only (see program contact).

<sup>2</sup> A student must take 3 to 6 credits in either EMHS:490 Current Topics in Emergency Management or EMHS:xxx Emergency Management and Homeland Security electives for a minimum of 6 credits.

Total Credits for Degree = 127 minimum (including 1st and 2nd year credits)

**Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.**

## Emergency Medical Services Technology, EMT/Paramedic Option, AAS

### Associate of Applied Science in Emergency Medical Services Technology, EMT/Paramedic (224002AAS)

#### Contact Information

Mr. Dennis Ragins MPA, EMTP  
Associate Professor of Practice and Lead Faculty Member  
The Polsky Building 316  
330-972-2051  
dragins@uakron.edu

#### Program Information

The Emergency Medical Services Technology, EMT/Paramedic Option program offers both professional certification and a quality education. It not only goes beyond providing training required for certification, but it also recognizes the amount of learning associated with a Licensed Paramedic Program. Graduates of the program will have state certification as an EMT-Paramedic, which will enable them to provide the highest level of emergency medical service available.

The AAS in Emergency Medical Services offers both professional certification and education. It not only goes beyond providing training required for certification, but it also recognizes the amount of learning associated with a Licensed Paramedic Program. These programs enhance the skills service components with the additional critical thinking, problem solving, and cultural diversity awareness attributes of higher education.

Upon application and matriculation to the University and a concurrent presentation of an official paramedic transcript from an accredited EMS training facility with a graduation date of 1985 or thereafter, academic transfer credit will be awarded to individuals for certified paramedic education as part of the Emergency Medical Services Technology degree Fire/Medic option.

#### Career Information

The AAS in Emergency Medical Services (both options) offers both professional certification and education. It goes beyond providing training required for certification; it also recognizes the amount of learning associated with a Licensed Paramedic Program. These programs enhance the skills service components with the additional critical thinking, problem solving, and cultural diversity awareness attributes of higher education.

#### Salary Information

- Occupation Code: 29-2041
- Occupation Title: Emergency Medical Technicians and Paramedics

## Employment Estimates

- Employment: 460
- Employment RSE: 11.1%
- Employment per 1000 jobs: 1.487
- Location Quotient: 0.852

## Wage Estimates

- Median Hourly: \$12.81
- Mean Hourly: \$13.61
- Mean Annual: \$28,310
- Mean RSE: 2.9%

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. Transfer students should consult their Advisor to identify courses that are equivalent.

## Requirements Summary

Code	Title	Hours
General Courses		30
Paramedic Courses		30
Total Hours		60

## General Courses

Code	Title	Hours
ENGL:111	English Composition I	3
COMM:263	Professional Communications and Presentations	3
STAT:250	Statistics for Everyday Life	4
SOWK:230	Human Relations	3
or PSYC:100	Introduction to Psychology	
BAHA:120	Medical Terminology	3
ANAT:206	Applied Human Anatomy & Physiology I	3
FIRE:100	Introduction to Fire Protection	4
FIRE:202	Incident Management for Emergency Responders	4
FIRE:257	Fire & Safety Issues for Business & Industry	3
Total Hours		30

## Paramedic Courses <sup>1</sup>

Code	Title	Hours
EMSP:201	Fundamentals of EMT-Paramedic I	3
EMSP:202	Fundamentals of EMT-Paramedic II	3
EMSP:203	Fundamentals of EMT-Paramedic III	3
EMSP:204	Fundamentals of EMT-Paramedic IV	3
EMSP:205	Fundamentals of EMT-Paramedic V	3

EMSP:206	Fundamentals of EMT-Paramedic VI	3
EMSP:207	Fundamentals of EMT-Paramedic VII	3
EMSP:208	Fundamentals of EMT-Paramedic VIII	3
EMSP:209	Fundamentals of EMT-Paramedic IX	3
EMSP:211	Fundamentals of EMT-Paramedic X	3
Total Hours		30

<sup>1</sup> 30 Block credit for State of Ohio, Department of Public Safety/EMT-Paramedic Certification from an accredited paramedic training facility.

## Recommended Sequence

### 1st Year

Fall Semester	Hours
FIRE:100 Introduction to Fire Protection	4
BAHA:120 Medical Terminology	3
ENGL:111 English Composition I	3
STAT:250 Statistics for Everyday Life	4
SOWK:230 Human Relations	3
or PSYC:100 or Introduction to Psychology	
Hours	17

### Spring Semester

FIRE:202 Incident Management for Emergency Responders	4
FIRE:257 Fire & Safety Issues for Business & Industry	3
COMM:263 Professional Communications and Presentations	3
ANAT:206 Applied Human Anatomy & Physiology I	3
Hours	13
Total Hours	30

30 Block credit for State of Ohio, Department of Public Safety / EMT-Paramedic Certification from an accredited paramedic training facility.

Code	Title	Hours
EMSP:201	Fundamentals of EMT-Paramedic I	3
EMSP:202	Fundamentals of EMT-Paramedic II	3
EMSP:203	Fundamentals of EMT-Paramedic III	3
EMSP:204	Fundamentals of EMT-Paramedic IV	3
EMSP:205	Fundamentals of EMT-Paramedic V	3
EMSP:206	Fundamentals of EMT-Paramedic VI	3
EMSP:207	Fundamentals of EMT-Paramedic VII	3
EMSP:208	Fundamentals of EMT-Paramedic VIII	3
EMSP:209	Fundamentals of EMT-Paramedic IX	3
EMSP:211	Fundamentals of EMT-Paramedic X	3
Total Hours		30

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

# Emergency Medical Services Technology, Fire/Medic Option, AAS

## Associate of Applied Science in Emergency Medical Services Technology, Fire/Medic (224003AAS)

### Contact Information

Mr. Dennis Ragins MPA, EMTP  
Associate Professor of Practice and Lead Faculty Member  
The Polsky Building 316  
330-972-2051  
dragins@uakron.edu

### Program Information

The Emergency Medical Services Technology, Fire/Medic Option program offers both professional certification and a quality education. It not only goes beyond providing training required for certification, but it also recognizes the amount of learning associated with a Licensed Paramedic Program. Graduates of the program will have state certification as an EMT-Paramedic, which will enable them to provide the highest level of emergency medical service available.

The AAS in Emergency Medical Services program offers both professional certification and education. It not only goes beyond providing training required for certification, but it also recognizes the amount of learning associated with a Licensed Paramedic Program. These programs enhance the skills service components with the additional critical thinking, problem solving, and cultural diversity awareness attributes of higher education.

Upon application and matriculation to the University and a concurrent presentation of an official paramedic transcript from an accredited EMS training facility with a graduation date of 1985 or thereafter, academic transfer credit will be awarded to individuals for certified paramedic education as part of the Emergency Medical Services Technology degree Fire/Medic option.

### Career Information

The AAS in Emergency Medical Services (both options) offers both professional certification and education. It goes beyond providing training required for certification; it also recognizes the amount of learning associated with a Licensed Paramedic Program. These programs enhance the skills service components with the additional critical thinking, problem solving, and cultural diversity awareness attributes of higher education.

### Salary Information

- Occupation Code: 29-2041
- Occupation Title: Emergency Medical Technicians and Paramedics

### Employment Estimates

- Employment: 460
- Employment RSE: 11.1%
- Employment per 1000 jobs: 1.487
- Location Quotient: 0.852

### Wage Estimates

- Median Hourly: \$12.81
- Mean Hourly: \$13.61
- Mean Annual: \$28,310
- Mean RSE: 2.9%

### Cooperative Education

As a fire protection student, you may participate in a 15-week internship. The internship consists of a full-time assignment in a fire protection agency. The Internship program provides valuable fire related experience with regional fire organizations such as fire departments, private fire investigation organizations, hazardous material compliance organizations and others.

Also, our Fire Protection Technology majors are encouraged to participate in special projects such as fire training, educational tours and fire related research projects. It will provide you with first-hand experience, help you learn what a career in that area of fire protection is all about, and aid you in making important career decisions.

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### Requirements Summary

Code	Title	Hours
Required Courses		28-29
Required Paramedic Courses		30
Total Hours		58-59

### Required Courses

Code	Title	Hours
PSYC:100	Introduction to Psychology	3
ANAT:206	Applied Human Anatomy & Physiology I	3
FIRE:295	Field Experience I	2
FIRE:296	Field Experience II	2
COMM:263	Professional Communications and Presentations	3
FIRE:250	Hazardous Materials	4
<i>Must take classes in either Option 1 or Option 2:</i>		11-12
Option 1		
FIRE:102	Fire Safety in Building Design & Construction	
FIRE:100	Introduction to Fire Protection	
FIRE:104	Fire Investigation Methods	
Option 2		
FIRE:260	Fundamentals of Firefighting	

FIRE:261	Firefighter I	
FIRE:262	Firefighter II	
FIRE:263	Emergency Vehicle Operations	
Total Hours		28-29

## Required Paramedic Courses

Code	Title	Hours
EMSP:201	Fundamentals of EMT-Paramedic I	3
EMSP:202	Fundamentals of EMT-Paramedic II	3
EMSP:203	Fundamentals of EMT-Paramedic III	3
EMSP:204	Fundamentals of EMT-Paramedic IV	3
EMSP:205	Fundamentals of EMT-Paramedic V	3
EMSP:206	Fundamentals of EMT-Paramedic VI	3
EMSP:207	Fundamentals of EMT-Paramedic VII	3
EMSP:208	Fundamentals of EMT-Paramedic VIII	3
EMSP:209	Fundamentals of EMT-Paramedic IX	3
EMSP:211	Fundamentals of EMT-Paramedic X	3
Total Hours		30

30 Block credit for State of Ohio, Department of Public Safety / EMT-Paramedic Certification from an accredited paramedic training facility.

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

## Recommended Sequence

### 1st Year

Fall Semester		Hours
FIRE:100	Introduction to Fire Protection	4
FIRE:102	Fire Safety in Building Design & Construction	3
FIRE:104	Fire Investigation Methods	4
ENGL:111	English Composition I	3
STAT:250	Statistics for Everyday Life	4
Hours		18

### Spring Semester

COMM:263	Professional Communications and Presentations	3
FIRE:295	Field Experience I	2
FIRE:296	Field Experience II	2
ANAT:206	Applied Human Anatomy & Physiology I	3
FIRE:250	Hazardous Materials	4
PSYC:100	Introduction to Psychology	3
Hours		17

### 2nd Year

Fall Semester		Hours
EMSP:201	Fundamentals of EMT-Paramedic I	3
EMSP:202	Fundamentals of EMT-Paramedic II	3
EMSP:203	Fundamentals of EMT-Paramedic III	3
EMSP:204	Fundamentals of EMT-Paramedic IV	3
EMSP:205	Fundamentals of EMT-Paramedic V	3
Hours		15

### Spring Semester

EMSP:206	Fundamentals of EMT-Paramedic VI	3
EMSP:207	Fundamentals of EMT-Paramedic VII	3
EMSP:208	Fundamentals of EMT-Paramedic VIII	3
EMSP:209	Fundamentals of EMT-Paramedic IX	3
EMSP:211	Fundamentals of EMT-Paramedic X	3
Hours		15
Total Hours		65

30 Block credit for State of Ohio, Department of Public Safety / EMT-Paramedic Certification from an accredited paramedic training facility.

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

## Fire Protection Technology, AAS Associate of Applied Science in Fire Protection Technology (223001AAS) Contact Information

Mr. Dennis Ragins MPA, EMTP  
Professor of Practice and Lead Faculty Member  
The Polsky Building 316  
330-972-2051  
dragins@uakron.edu

Graduates of the fire protection program have a wide selection of career opportunities. Your education will assist you in becoming an expert in many areas including fire protection, recognition and correction of fire hazards, design and application of fire extinguishing equipment, and utilization of fire codes and standards.

The program is designed to prepare you for a career in fire protection in municipal, industrial, state, federal, and private fire protection agencies. It also provides instruction for service fire fighters wishing to prepare for career advancement.

## Salary Information: National Estimates for this Occupation

Employment estimate and mean wage estimates for this occupation:

- Employment: 302,400
- Employment RSE: 1.0%
- Mean hourly wage: \$22.95
- Mean annual wage: \$47,730
- Wage RSE: 1.0%

Percentile wage estimates for this occupation:

### Hourly Wage

- 10% = \$11.08
- 25% = \$15.38
- 50% (Median) = \$21.76
- 75% = \$28.80
- 90% = \$36.25

## Annual Wage

- 10% = \$23,050
- 25% = \$31,990
- 50% (Median) = \$45,250
- 75% = \$59,900
- 90% = \$75,390

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## Requirements Summary

Code	Title	Hours
Required Courses		62
Total Hours		62

## Required Courses

Code	Title	Hours
ENGL:111	English Composition I	3
ENGL:222	Technical Report Writing	3
COMM:263	Professional Communications and Presentations	3
STAT:250	Statistics for Everyday Life	4
CHEM:101	Chemistry for Everyone	4
PSYC:100 or SOWK:230	Introduction to Psychology Human Relations	3
FIRE:100	Introduction to Fire Protection	4
FIRE:102	Fire Safety in Building Design & Construction	3
FIRE:104	Fire Investigation Methods	4
FIRE:202	Incident Management for Emergency Responders	4
FIRE:204	Fire and Life Safety Education	3
FIRE:205	Fire Detection & Suppression Systems	3
FIRE:206	Fire Sprinkler System Design	3
FIRE:250	Hazardous Materials	4
FIRE:254	Fire Prevention	3
FIRE:257	Fire & Safety Issues for Business & Industry	3
FIRE:280	Fire Service Administration	4
FIRE:295	Field Experience I	2
FIRE:296	Field Experience II	2
Total Hours		62

## Recommended Sequence

### 1st Year

Fall Semester		Hours
ENGL:111	English Composition I	3
STAT:250	Statistics for Everyday Life	4
FIRE:100	Introduction to Fire Protection	4
FIRE:104	Fire Investigation Methods	4
Hours		15

### Spring Semester

FIRE:102	Fire Safety in Building Design & Construction	3
FIRE:202	Incident Management for Emergency Responders	4
FIRE:206	Fire Sprinkler System Design	3
FIRE:254	Fire Prevention	3
ENGL:222	Technical Report Writing	3
Hours		16

### 2nd Year

#### Fall Semester

FIRE:204	Fire and Life Safety Education	3
FIRE:205	Fire Detection & Suppression Systems	3
FIRE:280	Fire Service Administration	4
COMM:263	Professional Communications and Presentations	3
CHEM:101	Chemistry for Everyone	4
Hours		17

#### Spring Semester

FIRE:250	Hazardous Materials	4
FIRE:257	Fire & Safety Issues for Business & Industry	3
FIRE:295	Field Experience I	2
FIRE:296	Field Experience II	2
SOWK:230 or PSYC:100	Human Relations or Introduction to Psychology	3
Hours		14
Total Hours		62

**Policy Alert:** By the end of your first 48 credit hours attempted, you must have completed your *required* General Education English, Mathematics, and Communications (Speech) requirements.

## Fire Protection Technology, Certificate

### Certificate in Fire Protection Technology (223001C)

Fire continues to be a problem in the United States even though the loss of lives is declining due to new, innovative public education programs, rigorous enforcement of building and fire code enforcement and the application of advanced technology related to fire detection and suppression systems. However, with the loss of civilian lives ranging from 4,050 to 4,440 each year and property loss continuing to escalate, the need for well-educated firefighters becomes more important as community resources are reallocated. The Fire Protection Technology

certificate will assist the student in acquiring the knowledge and skills necessary to function effectively as a fire protection specialist.

This certificate may be earned independent of earning a degree.

#### Program Contact

Mr. Dennis Ragins MPA, EMTP  
Associate Professor of Practice and Lead Faculty Member  
The Polsky Building 316  
330-972-2051  
dragins@uakron.edu

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The following courses constitute a "Certificate in Fire Protection Technology" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		25
Total Hours		25

## Required Courses

Code	Title	Hours
FIRE:100	Introduction to Fire Protection	4
FIRE:102	Fire Safety in Building Design & Construction	3
FIRE:104	Fire Investigation Methods	4
FIRE:202	Incident Management for Emergency Responders	4
FIRE:204	Fire and Life Safety Education	3
FIRE:205	Fire Detection & Suppression Systems	3
FIRE:250	Hazardous Materials	4
Total Hours		25

## Fire Protection Technology, Minor Minor in Fire Protection Technology (223001M)

#### Program Contact

Mr. Dennis Ragins MPA, EMTP  
Associate Professor of Practice and Lead Faculty Member  
The Polsky Building 316  
330-972-2051  
dragins@uakron.edu

The following information has official approval of **The School of Disaster Sciences and Emergency Services** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Fire Protection Technology" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		17
Total Hours		17

## Required Courses

Code	Title	Hours
FIRE:100	Introduction to Fire Protection	4
FIRE:102	Fire Safety in Building Design & Construction	3
FIRE:104	Fire Investigation Methods	4
FIRE:204	Fire and Life Safety Education	3
FIRE:205	Fire Detection & Suppression Systems	3
Total Hours		17

Note:

- A minor in Fire Protection may only be awarded at the time a student receives a baccalaureate degree.

## Exercise and Nutrition Sciences Physical Education

The School of Exercise and Nutrition Sciences offers the following undergraduate programs:

- Exercise Science
- Sport Studies
- Licensure in Dance (Pre-K-12) (Admission Suspended)

## Health Education

- Health Education with Licensure (Admission Suspended)

## Community Health and Wellness Education

- Community Health (Admission Suspended)

## Bachelor of Science in Dietetics: Coordinated Program

**The Coordinated Program has suspended admissions to the program as of fall 2020 until further notice pending program reorganization.**

To become a registered dietitian (RD), a student must complete the academic requirements, complete a minimum of 1,200 hours of supervised experience in dietetic practice, obtain appropriate verification, and pass the dietetic registration examination. Only accredited programs like those at The University of Akron are recognized by the Academy of Nutrition and Dietetics.

This Coordinated Program (CP) allows students to complete 1,200 hours of supervised experience along with regular coursework during their junior and senior years. Students must have successfully completed their

coursework and clinical experience before they are eligible to take the registration examination.

The University of Akron students apply through the College of Health and Human Sciences Dean's Office to be considered for admission into the Coordinated Program (dietetics major). Students must meet the minimum criteria listed below:

- 3.0 overall GPA
- Completion of prerequisite courses with a grade of "C" or better
- Faculty Interview

Students who desire to be admitted to the CP should know that seats are limited and entry is competitive.

Application Procedures: Application form is available online.

Verification Statements: A CP Verification Statement will be issued after successful completion of all coursework and clinical rotations. This statement is a legal document necessary to take the National Registration Exam for Dietitians.

## Bachelor of Science in Food and Environmental Nutrition

Students obtaining a Bachelor of Science degree in Food and Environmental Nutrition will qualify for the food industry in food marketing, entrepreneurship, quality control, quality assurance, and food product design. Program graduates have acquired the expertise to meet the challenges of the food industry. Employment is generally with food manufacturers and related businesses with an emphasis on marketing and the consumer.

Students must meet the requirements to be admitted to the College of Health and Human Sciences, the School of Exercise and Nutrition Sciences, and the Food and Environmental Nutrition program.

## Post-Bac Applicants

The School of Exercise and Nutrition Sciences welcomes applicants who hold degrees in other disciplines desiring to become registered dietitians (RD). Students who have taken the prerequisite science courses may possibly complete their Post-Bac work in two years. Applicants who do not have the requisite science courses will require a longer period of study. After completing their course work students will be given a verification statement.

For further information contact Ms. Joan Ogg  
Phone: 1-330-972-5875  
Email: jsteese@uakron.edu  
Address: 313 Mary Gladwin Hall

Please note: Recentness of education requirements may need to be satisfied. Students seeking a second degree from The University of Akron must complete 30 credits in residence.

- Dietetics, Coordinated BST (p. 626)
- Exercise Science, Applied Exercise Physiology, BS (p. 629)
- Exercise Science, Coaching and Conditioning, BS (p. 631)
- Exercise Science, Fitness Management, BS (p. 632)
- Exercise Science, Pre-Professional Concentration, BS (p. 634)
- Food & Environmental Nutrition, BST (p. 636)
- Nutrition, Minor (p. 638)

- Sport and Exercise Science Sport Coaching & Strength Training, Certificate (p. 639)
- Sport and Exercise Science Sport Management, Certificate (p. 639)
- Sport Studies Coach Education, Minor (p. 640)
- Sport Studies, Coaching Education, BS (p. 640)
- Sport Studies, Sport Management, BS (p. 642)
- Sport Studies, Sport Management, Minor (p. 644)

## General Studies - Physical Education (PHED)

### PHED:102 Physical Education Activities I: Fitness, Leisure, & Healthy Life Style (3 Credits)

Introduction to fitness and leisure activities, as well as healthy life style. Knowledge of developing programs that lead to fitness, leisure and healthy life style for individuals as well as groups. (Formerly 5550:102)

### PHED:120 Archery (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:120)

### PHED:121 Badminton (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:121)

### PHED:122 Basketball (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:122)

### PHED:123 Bowling (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:123)

### PHED:126 Fitness and Wellness (1 Credit)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:126)

### PHED:127 Golf (1 Credit)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:127)

### PHED:128 Gymnastics (Apparatus) (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:128)

### PHED:129 Gymnastics (Tumbling) (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:129)

### PHED:130 Handball (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:130)

### PHED:131 Indoor Soccer (0.5 Credits)

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:131)

**PHED:132 Karate (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:132)

**PHED:133 Lifeguard Training (2 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:133)

**PHED:134 Modern Dance (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:134)

**PHED:135 Racquetball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:135)

**PHED:136 Rugby (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:136)

**PHED:138 Scuba (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:138)

**PHED:139 Self Defense (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:139)

**PHED:140 Skiing (Cross-Country) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:140)

**PHED:141 Skiing (Downhill) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:141)

**PHED:142 Soccer (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:142)

**PHED:143 Social Dance (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:143)

**PHED:145 Squash Rackets (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:145)

**PHED:146 Swimming (Beginning) (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:146)

**PHED:147 Swimming (Intermediate) (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:147)

**PHED:149 Team Handball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:149)

**PHED:150 Tennis (Beginning) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:150)

**PHED:151 Volleyball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:151)

**PHED:152 Water Polo (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:152)

**PHED:153 Water Safety (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:153)

**PHED:154 Wrestling (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:154)

**PHED:155 Basic Kayaking (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:155)

**PHED:170 Varsity Baseball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:170)

**PHED:171 Varsity Basketball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:171)

**PHED:172 Varsity Cross Country (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:172)

**PHED:173 Varsity Football (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:173)

**PHED:174 Varsity Golf (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:174)



**PHED:175 Varsity Soccer (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:175)

**PHED:176 Varsity Softball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:176)

**PHED:177 Varsity Swimming (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:177)

**PHED:178 Varsity Tennis (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:178)

**PHED:179 Varsity Track (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:179)

**PHED:180 Varsity Wrestling (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports(170-181).\*\* Varsity sports are one credit each. (Formerly 5540:180)

**PHED:181 Varsity Volleyball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:181)

**PHED:182 Varsity Riflery (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:182)

**PHED:183 Varsity Cheerleading (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:183)

**PHED:190 Special Topics: General Studies Physical Education (0.5-2 Credits)**

Weight training, self-defense for the blind, water safety instruction, beginning yoga, tai chi, billiards, intermediate and advanced bowling, intermediate and advanced golf, advanced self-defense. (Formerly 5540:190)

**PHED:193 Orientation to Physical and Health Education (3 Credits)**

Introduction to physical and health education to students who pursue state license in teaching physical and health education. It's also the required course before the admission to the college of education. (Formerly 5550:193)

**PHED:194 Sports Officiating (2 Credits)**

Knowledge of rules for interscholastic sports and officiating techniques. (Formerly 5550:194)

**PHED:195 Foundations of Physical Education (3 Credits)**

Concepts analysis of games and play and application of these concepts to the teaching/learning process in physical education at all ages. (Formerly 5550:195)

**PHED:199 Special Topics: General Studies Physical Education (0.5-2 Credits)**

See department for course description. (Formerly 5540:199)

**PHED:200 Aquatic Facility Management (3 Credits)**

This course is designed to explore, acquire, and discuss knowledge and techniques of aquatic facility operation and management. (Formerly 5550:200)

**PHED:201 Water Safety Instructor (2 Credits)**

This course is designed to train students to teach swimming and water safety courses from Pre-K to adult. (Formerly 5540:201)

**PHED:202 Diagnosis of Motor Skills (3 Credits)**

This course introduces athletic trainers and physical education majors to the sciences of diagnosing motor skills. (Formerly 5550:202)

**PHED:203 Measurement & Evaluation in Physical Education (3 Credits)**

Statistical procedures needed for analysis and interpretation of tests. Evaluation procedures, testing instruments, and techniques for administering tests are discussed and practiced. Three hours lecture. (Formerly 5550:203)

**PHED:204 Individual and Team Sports (2 Credits)**

Intro to individual and team sports that are commonly taught in schools. Course presents knowledge, fundamental skill development, psychomotor skills analysis for the content areas. (Formerly 5550:204)

**PHED:205 Team Sports (2 Credits)**

The purpose of this course is to teach students how to teach team sports. (Formerly 5550:205)

**PHED:207 Introduction to Rock Climbing (1 Credit)**

This course teaches basic rock-climbing skills. No previous experience in necessary. (Formerly 5540:207)

**PHED:211 First Aid & Cardiopulmonary Resuscitation (2 Credits)**

Based on American Red Cross standards for first aid and cardiopulmonary resuscitation. Instruction and skills practice for sudden illness/emergencies is provided. Two hours lecture. (Formerly 5550:211)

**PHED:212 First Aid and CPR for Professional Rescuer (2 Credits)**

Prerequisite: Permission of instructor. First aid and cardiopulmonary resuscitation for health care professionals based upon American Red Cross standards. Instruction and skills practice for sudden illness/emergencies is provided. (Formerly 5550:212)

**PHED:235 Concepts of Motor Learning & Development (3 Credits)**

This course will introduce key motor learning concepts and analysis of developing fundamental motor skills. Three hours lecture. (Formerly 5550:235)

**PHED:245 Adapted Physical Education (3 Credits)**

Identification of atypical movement among various exceptional individuals, with adapted physical education programming experience in a laboratory setting. (Formerly 5550:245)

**PHED:306 PE Act IV: Badminton/Golf (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of badminton and golf. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:306)

**PHED:307 Physical Education Activities V (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of tennis and volleyball. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:307)

**PHED:308 PE Act IV: Dance & Tumbling (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of dance and tumbling. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:308)

**PHED:335 Movement Experiences for Children (3 Credits)**

Prerequisites: PHED 130, PHED 193, and PHED 235. Course focuses on use of fundamental motor skill analysis to structure movement lessons for children from early childhood through elementary years. One hour lecture, two hours lab. (20 clinical hours, 10 field hours.) Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:335)

**PHED:336 Motor Learning & Development for Early Childhood (2 Credits)**

Physical fitness, fundamental motor skills, motor development and learning for early childhood, birth to age eight. Creating an environment of motor experiences for young children (10 field hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:336)

**PHED:428 Nutrition for Teachers and Coaches (3 Credits)**

Covers nutritional basics and topics related to teaching physical education/health and coaching athletes, including basic nutrition, eating disorders, meal preparation, and trends in nutrition. (Formerly 5550:428)

**PHED:436 Foundations & Elements of Adapted Physical Education (3 Credits)**

Principles, components, and strategies necessary in providing motor activities for handicapped students via application of a neuro-developmental model and alternate methods. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:436)

**PHED:446 Instructional Techniques in Secondary Physical Education & Health (3 Credits)**

Prerequisites: PHED 102, PHED 193, PHED 204, and PHED 205. Instructional strategies for teaching secondary students in physical and health education. A variety of instructional models will be introduced appropriate to the learners' age and development. It is a required course for the physical education licensure. Two hours lecture, two hours lab (30 clinical hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:446)

**PHED:447 Instructional Techniques for Children in Physical Education & Health Education (3 Credits)**

Prerequisites: PHED 130 and PHED 193. Instructional strategies for teaching children in physical and health education. A variety of instructional models will be introduced appropriate to the learners' age and development. Required for the physical education licensure. (30 clinical hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:447)

**PHED:450 Organization & Administration of Physical Education, Intramural and Athletics (3 Credits)**

Prerequisite: Admission to the Sport Science and Wellness Program or instructor's permission. Investigation of procedures for conducting physical education, intramural, and athletic programs. Includes tournament designs, supplies and equipment, liability, curriculum, and general administration. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:450)

**PHED:451 Assessment & Evaluation in Adapted Physical Education (3 Credits)**

Investigation, analysis, and selection of appropriate assessment instruments, as well as methodology for determining instructional objectives and activities for handicapped students. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:451)

**PHED:452 Foundations of Sport Science, Physical and Health Education (3 Credits)**

Prerequisite: Admission to the Sport Science and Wellness Program. Overview of the emergence of sport science, physical and health education as a profession and the supporting role of underlying scholarly and scientific disciplines. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:452)

**PHED:490 Workshop in Physical Education (1-3 Credits)**

Practical, intensive and concentrated involvement with current curricular practices in areas related to physical education. Students must be in the College of Education to take 300/400 level courses. (Formerly 5550:490)

**PHED:494 Student Teaching Colloquium for Physical & Health Education (2 Credits)**

Corequisite: PHED 495. Students meet during student teaching to discuss concerns about student teaching and analyze previous learning as it relates to their future as a professional educator. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:494)

**PHED:495 Student Teaching for Physical & Health Education (11 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing OAE subject test, and approved portfolio. Corequisite PHED 494. Planned teaching experience in schools selected and supervised by the Office of Student Teaching. (Formerly 5550:495)

**PHED:497 Independent Study: Physical Education (1-6 Credits)**

Prerequisite: Permission of adviser. Analysis of specific topic related to a current problem in physical education or sport and exercise science. May be repeated for a maximum of 12 credits. \*Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:497)

## Sport Studies/Sport Science (SPRT)

### SPRT:100 Introduction to Sport Studies (3 Credits)

Introduction to sport studies explores the history, philosophy, and principles of today's sport industry within a practical, career-oriented framework. (Formerly 5550:100)

### SPRT:160 Introduction to Coaching (3 Credits)

An introduction to the coaching profession. Discussion of the important technical and tactical elements of coaching athletes. (Formerly 5550:160)

### SPRT:206 Coaching Basketball (3 Credits)

An introduction to coaching basketball. Discussion of the important technical and tactical elements of coaching basketball. (Formerly 5550:206)

### SPRT:207 Coaching Track and Field (3 Credits)

An introduction to coaching track and field. Discussion of the important technical, tactical and psychological elements of coaching track and field. (Formerly 5550:207)

### SPRT:208 Coaching Football (3 Credits)

An introduction to coaching football. Discussion of the important technical and tactical elements of coaching football. (Formerly 5550:208)

### SPRT:209 Coaching Baseball (3 Credits)

An introduction to coaching baseball. Discussion of the important offensive, defensive, and technical and tactical elements of coaching baseball. (Formerly 5550:209)

### SPRT:362 Sport History (3 Credits)

This course is designed to introduce students to sport in American History. The people, organizations and institutions that shaped the development of sport are examined. (Formerly 5550:362)

### SPRT:364 Sport Ethics (3 Credits)

The focus of this course is the ethical behavior of sport participants and sport administrators studied within the context of the sport environment. (Formerly 5550:364)

### SPRT:366 Sport Communication (3 Credits)

The focus of this course is on the important knowledge that administrators should have related to the field of sport communication. (Formerly 5550:366)

### SPRT:368 Sport Facility Management (3 Credits)

This course has been designed to identify the systems approach for the effective management of the maintenance and operation of sport and recreation facilities. (Formerly 5550:368)

### SPRT:370 Financial Aspects of Sport (3 Credits)

The focus of this course is related to the important knowledge that administrators should have related to the field of the financial aspects of sport. (Formerly 5550:370)

### SPRT:375 Sport Performance Principles (3 Credits)

An introduction to important elements related to the physical aspects of sport performance. Discussion of the important physical elements of coaching athletes. (Formerly 5550:375)

### SPRT:395 Field Experience (1-6 Credits)

Practical experience in an area related to physical education under supervision of faculty member. Student works with current physical education programs or exercise science settings. May be repeated for a maximum of 12 credits. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:395)

### SPRT:409 Sport Behavior (3 Credits)

The focus of this course is the behavior of athletes and sport participants studied within the context of play, games, and sport. (Formerly 5550:409)

### SPRT:410 Introduction to Sport Sociology (3 Credits)

Provides information to students about the sociological aspects of sport. (Formerly 5550:410)

### SPRT:420 Fundamentals of Management Strategies in Sport (3 Credits)

This course seeks to explore, acquire, and discuss knowledge within the theoretical and applied management practices of sport, fitness, and instructional programs. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:420)

### SPRT:422 Sport Planning/Promotion (3 Credits)

Analysis of marketing/promotions from a sport manager's perspective. Emphasis on marketing strategy, tactics and development in sport delivery systems. (Formerly 5550:422)

### SPRT:424 Sports Leadership (3 Credits)

Introduces students to current issues related to leadership, management, and supervision. Examines current sport leadership research and governance structure of amateur and professional sport organizations. (Formerly 5550:424)

### SPRT:453 Principles of Coaching (3 Credits)

Prerequisite: Admission to the Sport Science and Wellness Program. Basics for becoming a successful coach. Discussion of principles applying to most sports, players and coaches. Ten clinical hours required. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:453)

### SPRT:462 Legal Aspects of Physical Activity (2 Credits)

Overview legal and ethical elements of greatest concern to specialists in sport and physical activity. Cases used to illustrate specific points. Topics vary. (Formerly 5550:462)

## Outdoor Education (ODED)

### ODED:430 Senior Honors Project: Outdoor Education (1-6 Credits)

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5560:430)

### ODED:450 Application of Outdoor Education to the School Curriculum (4 Credits)

Provides knowledge, skills and techniques useful in application of outdoor education to school curriculum. (Formerly 5560:450)

### ODED:452 Resources & Resource Management for Teaching Outdoor Education (4 Credits)

Methodologies unique to outdoor education which incorporate a multisensory approach to learning. Instructional materials and resources which permit expansion of curriculum beyond the school building. (Formerly 5560:452)

### ODED:454 Resident Outdoor Education (2 Credits)

Skills, program considerations, and organizational techniques unique to an extended, overnight, resident outdoor education program. Off-campus location for four days and three nights. (Formerly 5560:454)

### ODED:456 Outdoor Pursuits (4 Credits)

Investigation and participation in practical experiences in outdoor pursuits. (Formerly 5560:456)

### ODED:460 Outdoor Education Practicum (2 Credits)

Prerequisites: ODED 452 and ODED 454. Closely supervised practical experience in conjunction with regularly scheduled classroom meetings. Laboratory experience consists of active participation with an established outdoor education program. (Formerly 5560:460)

**OED:464 Wilderness Education Association Outdoor Leadership (3 Credits)**

This is the Wilderness Education Association Standard Program for Outdoor Leadership Certification. (Formerly 5560:464)

**OED:497 Independent Study (1-3 Credits)**

Prerequisites: Permission of adviser and supervisor of independent study. Provides varied opportunities for a student to gain first-hand knowledge and experience with existing outdoor education programs. (Formerly 5560:497)

## Health Education (HEDU)

**HEDU:101 Personal Health (2 Credits)**

This course applies the current principles and facts pertaining to healthful, effective living, personal health problems, and needs of the student. Two hours lecture. (Formerly 5570:101)

**HEDU:201 Foundations in Health Education (3 Credits)**

Prerequisite: HEDU 101. History and philosophy of health education as a discipline; professionalism and administration in health education are considered. (Formerly 5570:201)

**HEDU:202 Stress Management (3 Credits)**

Prerequisite: Sophomore standing. Course provides knowledge about the relationship between stress, physiological, psychological illness and disease, also how to manage stress in life activities. (Formerly 5570:202)

**HEDU:322 Current Topics in Health Education (3 Credits)**

Prerequisites: HEDU 101, HEDU 201, and HEDU 420. Skills needed to do research, teach, and present current health education topics in a factual and comfortable manner in schools and community. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:322)

**HEDU:375 Program Planning and Evaluation (2 Credits)**

Prerequisites: HEDU 101 and HEDU 201. This course addresses the process of planning and evaluating health education programs within the school and community. (Formerly 5570:375)

**HEDU:395 Field Experience: Health Education (1-3 Credits)**

Prerequisite: Permission of the advisor. On-site field experience will be conducted in an area related to pre-K-12 health education under the supervision of a faculty member. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:395)

**HEDU:400 Environmental Aspects of Health Education (3 Credits)**

Prerequisite: Major or minor in health education and admission to the Sport Science and Wellness Program. A study of the interrelationships of ecosystems and a healthful environment. This course investigates many aspects of the environment and their influences upon the quality of human life. Students must be in the College of Education to take 300/400 level courses. (Formerly 5570:400)

**HEDU:420 Community and Personal Health (3 Credits)**

Introduction of current public and personal health issues. Organizations and their roles in public and personal health programs. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:420)

**HEDU:421 Comprehensive School Health (3 Credits)**

Prerequisites: HEDU 101, HEDU 201, and HEDU 320. This course explains and presents comprehensive school health curricula for pre-k to 12. The three components of a comprehensive school health program are presented. (Formerly 5570:421)

**HEDU:423 Methods & Materials Teaching Health Education (3 Credits)**

Prerequisites: HEDU 101, HEDU 201, HEDU 420, EDFN 210, EDFN 211, EDCI 310, EDCI 311. Planning, organization, use of instructional resources and delivery of health education content and teaching process (pre K-12). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:423)

**HEDU:430 Senior Honors Project: Health Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and admission to the Sport Science and Wellness Program. Carefully defined individual study demonstrating originality and sustained inquiry. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:430)

**HEDU:460 Practicum in Health Education (2-6 Credits)**

Prerequisite: Permission of the advisor. The practicum in Health Education is an on-site participation in a community health organization, agency or resource. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:460)

**HEDU:497 Independent Study: Health Education (1-2 Credits)**

Prerequisite: Permission of the advisor. Analysis of a specific topic related to a current problem in health education. May include investigative procedure, research or concentrated practical experience. (Formerly 5570:497)

## Nutrition and Dietetics (NUTR)

**NUTR:120 Career Decisions in Nutrition (1 Credit)**

Exploration of the nutrition/dietetics/food industry profession, including academic/internship routes, career opportunities, professional concepts and attributes. Self-assessment and goal setting with beginning portfolio development. (Formerly 7760:120)

**NUTR:132 Early Childhood Nutrition (3 Credits)**

Emphasis on nutrition as component of Early Childhood programs. Nutrition principles discussed in relation to self and young children. Prenatal and infant nutrition studied. Food as learning experience, menu planning, purchasing, sanitation, food labeling, storage and parent involvement included. For Family and Child Development Option, and an educational technology student. (Formerly 7760:132)

**NUTR:133 Nutrition Fundamentals (3 Credits)**

Study of basic nutrition concepts, contemporary issues, controversies; emphasis on macro/micro nutrient requirements for healthy individuals; analysis of a student's dietary intake. Online section available. (Formerly 7760:133)

**Gen Ed:** - Natural Science

**NUTR:141 Food for the Family (3 Credits)**

Prerequisite: Permission of instructor. Application of nutrition to meal planning; problems in selecting, budgeting and preparing food; meal service. (Formerly 7760:141)

**NUTR:200 Sustainability, Foods and Environments (3 Credits)**

This course provides an introduction to the basic concepts of environmental sustainability and conservation in food production. A brief history of this issue is followed by an examination of population needs and the management of water, agricultural practices, animal husbandry, fertilizer use, and land management. Global warming, genetically modified plant and animal organisms (GMOs), and carbon footprint/fossil fuel use, are also considered. The demographic and geo-political features of North American populations (urban, suburban, rural) contextualize comparisons of conventional food production practices and sustainable practices, around the world. (Formerly 7760:200)

**NUTR:228 Introduction to Medical Nutrition Therapy (3 Credits)**

Prerequisites: NUTR 133, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Introduction to Medical Nutrition Therapy will review basic metabolic and pathological conditions with emphasis on medical nutrition therapy strategies. (Formerly 7760:228)

**NUTR:250 Food Science Lecture (3 Credits)**

Prerequisites: NUTR 133, NUTR 120, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Corequisite: NUTR 251. Study of the chemical and physical structure of food. Scientific and aesthetic principles involved in the selection, storage and preparation of foods. (Formerly 7760:250)

**NUTR:251 Food Science Lab (1 Credit)**

Prerequisites: NUTR 133, NUTR 120, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Corequisite: NUTR 250. Application of the scientific and sensory principles involved in the selection, storage and preparation of foods. (Formerly 7760:251)

**NUTR:310 Food Systems Management I (4 Credits)**

Prerequisites: NUTR 250 and [ACCT 201 or COMM 211]. Corequisite: NUTR 315. Basic theoretical concepts in the management of dietetic food service systems and the practical application of principles and procedures in quantity food production and service. (Formerly 7760:310)

**NUTR:314 Food Systems I Field Experience (2 Credits)**

Prerequisites: ACCT 201 and NUTR 250. Corequisite: NUTR 310. Development of quantity food preparation in community and health care agencies; identification of functions and resources involved in the food service systems. (Formerly 7760:314)

**NUTR:315 Food Systems Management I Supervised Experiential Learning (2 Credits)**

Prerequisite: Admission to the Dietetics program and NUTR 250. Corequisite: NUTR 310. Development of quantity food preparation and supervisory skills in community agencies; identification of functions and resources involved in the management of food service systems. (Formerly 7760:315)

**NUTR:316 Science of Nutrition (4 Credits)**

In-depth characterization of composition, metabolism, physiological functions and interrelationships of nutrients. Analysis and interpretation of current literature; assessment of nutrition counseling techniques. (Formerly 7760:316)

**NUTR:321 Experimental Foods (3 Credits)**

Prerequisites: NUTR 250, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Theory and methods in the experimental study of foods. Sensory evaluation and instrumental analysis of food quality. Individual research emphasized. Lecture/Laboratory. (Formerly 7760:321)

**NUTR:328 Medical Nutrition Therapy I (3 Credits)**

Prerequisites: [NUTR 133 or NUTR 316], NUTR 426, and NUTR 443. Analysis of health care concepts and the medical nutrition therapy relationship. Consideration of nutritional implications of pathological conditions and alterations to diet for specific health issues or disorders. (Formerly 7760:328)

**NUTR:329 Medical Nutrition Therapy I Supervised Experiential Learning (2 Credits)**

Prerequisites: Admission to the Dietetics program, [NUTR 133 or NUTR 316], NUTR 426, and NUTR 443. Corequisite: NUTR 328. Analysis of therapeutic health-care concepts. Consideration of nutritional implications of pathological conditions; construction of diets for specific disorders. (Formerly 7760:329)

**NUTR:340 Meal Management (3 Credits)**

Prerequisite: NUTR 250 or NUTR 141. Emphasis is on meal design, etiquette, nutritional adequacy, and application of management principles. Resource management is applied to all course activities, including restricted financial and special diet situations. (Formerly 7760:340)

**NUTR:400 Nutrition Education Skills with the General Public (3 Credits)**

Prerequisites: Admission to the Dietetics program and [NUTR 133 or NUTR 316]. Theory and development of communication and education skills with the general public. (Formerly 7760:400)

**NUTR:401 Nutrition Counseling Skills (3 Credits)**

Prerequisites: Admission to a nutrition program and NUTR 400. This course discusses theory and development of counseling skills. Skills essential to dietetics practice and discussed in this course include but are not limited to; interpersonal communication; interviewing; nutrition counseling and coaching. (Formerly 7760:401)

**NUTR:403 Advanced Food Preparation (3 Credits)**

Prerequisite: NUTR 141 or NUTR 250. Study of advanced techniques of food preparation. Introduction to and interpretation of classic and foreign cuisines. Emphasis on individualized experiences, skill development and evaluation of procedures and results. (Formerly 7760:403)

**NUTR:412 Introduction to Regulatory Affairs (3 Credits)**

Organization and management in administration of food service systems; problems in administration of food service systems; problems in control of labor, time and cost. Field experience in food production. Study of regulations affecting the food industry, such as food labeling, nutrition labeling, food safety, and adulteration. Course includes discussion of regulatory agencies and their impact on the food industry. (Formerly 7760:412)

**NUTR:413 Food Systems Management II (3 Credits)**

Prerequisite: NUTR 310. Advanced concepts in management of dietetic service systems relating to achievement of nutritional care goals. (Formerly 7760:413)

**NUTR:421 Special Problems in Nutrition and Dietetics (1-3 Credits)**

Additional study or apprentice experience in specialized field or preparation; group and individual experimentation. (Formerly 7760:421)

**NUTR:424 Nutrition in Life Cycle (3 Credits)**

Prerequisite: NUTR 316 or NUTR 426. Study of the physiological basis for nutritional requirements; interrelating factors which affect growth, development, maturation and nutritional status from conception through the elderly years. (Formerly 7760:424)

**NUTR:426 Human Nutrition (3 Credits)**

Prerequisites: NUTR 133, NUTR 228, BIOL 202, BIOL 203, CHEM 112, and CHEM 113. Application of principles nutrition, metabolism and assessment. Analyses and interpretation of current literature. Open to dietetics majors only. (Formerly 7760:426)

**NUTR:428 Medical Nutrition Therapy II (3 Credits)**

Prerequisite: NUTR 328. Continuation of 328. Medical Nutrition Therapy I with emphasis on more complex metabolic and pathological conditions with nutrition therapy strategies. (Formerly 7760:428)

**NUTR:429 Medical Nutrition Therapy II Supervised Experiential Learning (2 Credits)**

Prerequisites: Admission to a nutrition program and NUTR 329. Corequisite: NUTR 428. Supervised practice experience in health care facilities with application of principles of medical nutrition therapy learned in NUTR 328 and NUTR 428. (Formerly 7760:429)

**NUTR:430 Computer Assisted Food Service Management (3 Credits)**

Use of computer programs in application of management concepts for food service systems. (Formerly 7760:430)

**NUTR:431 Healthcare Business and Research for Dietetics (3 Credits)**

Prerequisite: Admission to the Dietetics program. This course will discuss the procedure for best developing and implementing a new nutrition business. Coding and billing in healthcare will be addressed as well as exhibiting ethical behaviors of practice. Research is conducted in various areas of dietetics. The development and implementation of a research study will be discussed in addition to identifying outcomes and the appropriate statistical methods to use in research. (Formerly 7760:431)

**NUTR:443 Nutrition Assessment (3 Credits)**

Prerequisites: NUTR 133, NUTR 228, BIOL 202, BIOL 203, CHEM 112, and CHEM 113. Application of principles of nutrition and assessment. Analysis and interpretation of current literature. Open to dietetics majors only. (Formerly 7760:443)

**NUTR:444 Long Term Care Supervised Experiential Learning (4 Credits)**

Prerequisites: Admission to the Dietetics program, NUTR 328 and NUTR 329. Supervised Experiential Learning in long term care facilities for application of principles of nutritional care and foodservice operation. (Formerly 7760:444)

**NUTR:447 Senior Seminar (1 Credit)**

Prerequisite: Senior standing. Consideration of the nutrition/dietetic professions and the impact on the health and wellness of individuals, families, and the environment. Analysis of challenges facing the profession. (Formerly 7760:447)

**NUTR:470 Food Industry: Analysis & Field Study (3 Credits)**

Prerequisite: NUTR 250. Role of technology in extending the food supply. Chemical, physical and biological effects of processing and storage, on-site tours of processing plants. (Formerly 7760:470)

**NUTR:474 Cultural Dimensions of Food (3 Credits)**

Prerequisite: NUTR 250. An examination of cultural, geographical and historical influences on development of food habits. Emphasis on evolution of diets; effects of religion, education, gender roles, media. (Formerly 7760:474)

**NUTR:476 Developments in Food Science (3 Credits)**

Prerequisite: NUTR 250. Advanced study of the chemistry and physics of food components affecting characteristics of food. Critical evaluation of current basic and applied research emphasized. (Formerly 7760:476)

**NUTR:480 Community Nutrition I (3 Credits)**

Prerequisites: NUTR 316 or NUTR 426. Corequisite: NUTR 481 for CP students only. Major food and nutrition related problems in the community. Emphasis on community assessment, program implementation and evaluation, and rationales for nutrition services. (Formerly 7760:480)

**NUTR:481 Community Nutrition I-Supervised Experiential Learning (2 Credits)**

Prerequisite: Admission to a nutrition program. Corequisite: NUTR 480. Field placement in area agencies offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care. (Formerly 7760:481)

**NUTR:482 Community Nutrition II (3 Credits)**

Prerequisite: NUTR 480. Corequisite: NUTR 483 for CP students only. Activities engaged in by community nutritionist. Emphasis on controversies, cultural differences, educational approaches, grantsmanship, marketing, and working with the media. (Formerly 7760:482)

**NUTR:483 Community Nutrition II-Supervised Experiential Learning (2 Credits)**

Prerequisites: Admission to a nutrition program and NUTR 481. Corequisite: NUTR 482. A second field placement in an area agency offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care. (Formerly 7760:483)

**NUTR:484 Health and Wellness Clinical (4 Credits)**

Prerequisite: CP Students only, NUTR 481. Corequisites: NUTR 413 and NUTR 482. A field placement in agencies or facilities offering health and wellness services as they related to nutrition. Credit/Noncredit. (Formerly 7760:484)

**NUTR:485 Seminar in Health Professions (1-3 Credits)**

Prerequisite: Permission of instructor. Exploration and evaluation of current developments in selected areas. (Formerly 7760:485)

**NUTR:486 Staff Relief: Dietetics (2 Credits)**

Prerequisites: 7760:414, CP senior only. Opportunity to function as an entry-level dietitian in area of administrative, therapeutic or community dietetics. The graduating senior CUP student spends three 40-hour weeks in a mutually agreeable agency primarily under direction of staff dietitians or coordinators. (Formerly 7760:486)

**NUTR:487 Sports Nutrition (3 Credits)**

Prerequisites: NUTR 133, NUTR 426, BIOL 202, BIOL 203, CHEM 112, and CHEM 113. In-depth study of energy metabolism and utilization before, during, and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized. (Formerly 7760:487)

**NUTR:488 Practicum in Dietetics (1-3 Credits)**

Prerequisite: Approval of advisor/instructor. Practical experience in application of the principles of nutrition. (Formerly 7760:488)

**NUTR:489 Professional Preparation for Dietetics (1 Credit)**

Historical aspects of dietetics and where the profession is going. Specialty areas of dietetic practice are explored. Students prepare the application for dietetic internship. (Formerly 7760:489)

**NUTR:493 Nutrition for Athletes (3 Credits)**

Study of metabolism before, during, and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized. (Formerly 7760:493)

**NUTR:499 Senior Honors Project in Nutrition and Dietetics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and approval of honors preceptor. Individual study supervised by adviser. Student and preceptor develop goals, objectives and methodology. (Formerly 7760:499)

**NUTR:500 Nutrition Communication & Education Skills (4 Credits)**

Prerequisite: permission of instructor. Theory and development of communication and education skills essential to dietetics practice; interpersonal communication; interviewing; nutrition counseling, education techniques, media and current technology. (Formerly 7760:500)

**NUTR:503 Advanced Food Preparation (3 Credits)**

Prerequisite: permission. Study of advanced techniques of food preparation. Introduction to and interpretation of classical and foreign cuisines. Emphasis on individualized experience, skill development and evaluation of procedures and results. (Formerly 7760:503)

**NUTR:513 Food Systems Management II (3 Credits)**

Prerequisites: Acceptance into the graduate program or permission of the instructor. Advanced concepts in management of dietetic service systems relating to achievement of nutritional care goals. (Formerly 7760:513)

**NUTR:524 Nutrition in Life Cycle (3 Credits)**

Prerequisite: permission of the instructor. Study of the physiological basis for nutritional requirements; interrelating factors which affect growth, development, maturation and nutritional status from conception through the elderly years. (Formerly 7760:524)

**NUTR:526 Human Nutrition (3 Credits)**

Prerequisites: Acceptance into the graduate program or permission from the instructor. Corequisites: NUTR 543. Application of principles of nutrition, metabolism and assessment. Analysis and interpretation of current literature. (Formerly 7760:526)

**NUTR:528 Nutrition in Medical Science II (5 Credits)**

Prerequisites: Acceptance into the graduate program or permission of instructor. Emphasizing nutritional implications of more complex metabolic and pathological conditions as well as nutrition support strategies. (Formerly 7760:528)

**NUTR:529 Nutrition in Medical Sciences II Clinical (3 Credits)**

Prerequisite: Admission to CP Program. Corequisite: NUTR 528. Clinical experience in hospitals; application of principles of nutritional care. (Formerly 7760:529)

**NUTR:543 Nutrition Assessment (3 Credits)**

Corequisites: NUTR 526. Application of principles of nutrition and assessment. Analysis and interpretation of current literature. Open to dietetics majors only. (Formerly 7760:543)

**NUTR:544 Nutrition in Medical Science Long Term Care ? Clinical (2 Credits)**

Prerequisites: CP Graduate students only. Clinical experiences in long term care facilities for application of principles of nutritional care. (Formerly 7760:544)

**NUTR:570 Food Industry: Analysis & Field Study (3 Credits)**

Prerequisite: permission. Role of technology in extending the food supply. Chemical, physical and biological effects of processing and storage, on-site tours of processing plants. (Formerly 7760:570)

**NUTR:574 Cultural Dimensions of Food (3 Credits)**

An examination of cultural, geographical and historical influences on development of food habits. Emphasis on evolution of diets; effects of religion, education, gender roles, media. (Formerly 7760:574)

**NUTR:576 Developments in Food Science (3 Credits)**

Prerequisite: Permission. Advanced study of the chemistry and physics of food components affecting characteristics of foods. Critical evaluation of current basic and applied research emphasized. (Formerly 7760:576)

**NUTR:580 Community Nutrition I (3 Credits)**

Prerequisite: Permission of instructor. Corequisite: NUTR 581. Socio-cultural aspects of community assessment, program implementation and evaluation, and rationales for nutrition services. (Formerly 7760:580)

**NUTR:581 Community Nutrition I-Clinical (1 Credit)**

Corequisite: NUTR 580. Field placement in area agencies offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care. Credit/noncredit. (Formerly 7760:581)

**NUTR:582 Community Nutrition II (3 Credits)**

Prerequisites: NUTR 580 (NUTR 581 for CP student only). Corequisite: NUTR 583 for CP student only. This course will focus on managing nutrition services for productivity (economic, community and labor resources, and evaluation), and educating the dietitians' "various publics" about nutrition. (Formerly 7760:582)

**NUTR:583 Community Nutrition II-Clinical (1 Credit)**

Prerequisite: (CP students only) NUTR 581. Corequisite: NUTR 582. Field placement in area agencies offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care. Credit/noncredit. (Formerly 7760:583)

**NUTR:585 Seminar in Health Professions (1-3 Credits)**

Prerequisite: Permission of instructor. Exploration and evaluation of current developments in selected areas. (Formerly 7760:585)

**NUTR:587 Sports Nutrition (3 Credits)**

Prerequisite: Permission of instructor. In-depth study of energy metabolism and utilization before, during and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized. (Formerly 7760:587)

**NUTR:588 Practicum in Dietetics (1-3 Credits)**

Prerequisite: Approval of advisor/instructor. Practical experience in application of the principals of nutrition. (Formerly 7760:588)

**NUTR:589 Professional Preparation for Dietetics (1 Credit)**

Prerequisite: Open to those dietetics students in the Didactic Program or Graduate program who plan to apply for a Dietetic Internship. Historical aspects of dietetics and where the profession is going. Specialty areas of dietetic practice are explored. Students prepare the application for dietetic internship. (Formerly 7760:589)

**NUTR:593 Nutrition for Athletes (3 Credits)**

Study of metabolism before, during, and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized. (Formerly 7760:593)

**NUTR:604 Orientation to Graduate Studies in Health Professions (1 Credit)**

Introduction to the concepts and processes necessary for graduate study in health professions. (Formerly 7760:604)

**NUTR:610 Food Systems Management (3 Credits)**

Theoretical concepts in the management of dietetic food service systems, and application of principles and procedures to achieve nutritional goals. (Formerly 7760:610)

**NUTR:616 Clinical Nutrition (3 Credits)**

Study of Medical Nutrition Therapy (MNT) and its relationship to metabolic and pathological conditions, as well as nutrition support strategies. (Formerly 7760:616)

**NUTR:624 Advanced Human Nutrition I (3 Credits)**

Prerequisites: Undergraduate or graduate-level courses in nutrition and biochemistry. In-depth study of human nutrition emphasizing metabolism physiological functions, and interrelationships of carbohydrate, protein and lipids and the determinants of human energy requirements. (Formerly 7760:624)

**NUTR:625 Advanced Human Nutrition II (3 Credits)**

Prerequisite: NUTR 624 or equivalent. In-depth study of human nutrition with and emphasis in the utilization, physiological functions and interrelationships of vitamins and minerals. (Formerly 7760:625)

**NUTR:680 Current Issues in Nutrition (3 Credits)**

Study of current issues in the field of nutrition science. Each semester that it is offered, this course will explore a specific issue relevant to current research and practice in the field of nutrition as it relates to biology, immunology, applied nutrition, and epidemiology. (Formerly 7760:680)

**NUTR:685 Research Methods in Health Professions (3 Credits)**

A study of health sciences research methods emphasizing concept and theory development, quantitative and qualitative methodologies. (Formerly 7760:685)

**NUTR:688 Practicum in Nutrition and Dietetics (3 Credits)**

Prerequisite: Permission of advisor/instructor. A minimum of 150 hours of supervised experience in an approved community setting to acquire skills related to area of specialization. (Formerly 7760:688)

**NUTR:690 Thesis Research/Reading (3 Credits)**

Prerequisite: Permission of thesis advisor. Supervised reading and research related to approved thesis topic. May be repeated once. (Formerly 7760:690)

**NUTR:694 Masters Project (5 Credits)**

Prerequisite: Permission of advisor. The development, implementation and evaluation of a community-based supervised project which makes a significant contribution to the field and may lead to publication. (Formerly 7760:694)

**NUTR:696 Individual Investigation in Nutrition and Dietetics (1-3 Credits)**

Prerequisite: Permission of advisor. Individual Investigation and analysis of a specific topic in student's area of specialization of interest under direction of a faculty advisor. (Formerly 7760:696)

**NUTR:699 Masters Thesis in Health Professions (5 Credits)**

Prerequisite: permission of advisor. Supervised research in a specialized area of the health profession which makes a contribution to the field and may lead to publication. (Formerly 7760:699)

## Exercise Science/Exercise Physiology (EXER)

**EXER:110 Introduction to Athletic Training (1 Credit)**

Provides an overview of the Sports Medicine team and the components of a comprehensive athletic healthcare program. Introduces the student to the profession of athletic training. (Formerly 5550:110)

**EXER:125 Introduction to Exercise Science (1 Credit)**

Overview for becoming a fitness professional. Information concerning choosing a career, national certification and professional organizations will be provided. (Formerly 5550:125)

**EXER:150 Concepts in Health & Fitness (3 Credits)**

Introduction to basic health and fitness concepts and related topics. Attention will be given to individual fitness programs emphasizing such topics as aerobic and anaerobic exercises, nutrition, diet, stress, and assessment methods and procedures. (Formerly 5550:150)

**EXER:201 Kinesiology (3 Credits)**

Prerequisites: BIOL 200, [BIOL 201 or BIOL 202], BIOL 203. Application of basic principles of anatomy and mechanics to human movement. Three hours lecture with practical application and demonstrations. (Formerly 5550:201)

**EXER:220 Health Promotion and Behavior Change (3 Credits)**

Prerequisite: EXER 150. Course will translate theories of behavioral science for health professionals who are involved in planning, developing, implementing or evaluating physical activity programs. (Formerly 5550:220)

**EXER:240 Care & Prevention of Athletic Injuries (3 Credits)**

Prerequisites: BIOL 200, BIOL 201. Corequisite: BIOL 202, BIOL 203. This course is an introduction to basic athletic training principles and techniques. Includes a laboratory course for practical application of techniques. (Formerly 5550:240)

**EXER:241 Care and Prevention of Athletic Injuries Lab (1 Credit)**

Prerequisites: BIOL 200 and BIOL 201. Corequisites: BIOL 202 and BIOL 203, EXER 240. This course is designed to allow students to learn, practice, and become competent and proficient in the psychomotor skills associated basic injury prevention, evaluation, management, and treatment of physically active individuals in the practice of athletic training as defined by the NATA. (Formerly 5550:241)

**EXER:242 Therapeutic Modalities (3 Credits)**

Prerequisites: Accepted into the ATEP Clinical Education Program. Corequisite: EXER 243. This course will promote student medical and technical aspects of therapeutic modalities and pharmacological agents in the treatment and rehabilitation of injured physically active individuals. (Formerly 5550:242)

**EXER:243 Athletic Training Lab I (1 Credit)**

Prerequisites: Accepted into the ATEP Clinical Education Program. Corequisites: EXER 242. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:243)

**EXER:250 Principles of Athletic Training (3 Credits)**

Prerequisites: Students must be accepted into the Clinical Athletic Training Education Program (ATEP). This course will address principles and techniques used in initial evaluation of musculoskeletal injury as defined by CAATE standards and guidelines. (Formerly 5550:250)

**EXER:255 Emergency Care for Athletic Training (3 Credits)**

Prerequisite: Accepted into ATEP Clinical Education program. This course will teach knowledge and skills in handling emergency situations or life-threatening sudden illness or injuries which an athletic training may encounter. (Formerly 5550:255)

**EXER:275 Advanced Athletic Injury Management: Lower Extremity (3 Credits)**

Prerequisites: EXER 242 and EXER 243. Corequisite: EXER 276. This course is designed to meet CAATE standards and guidelines to display knowledge and psychomotor skills in injury evaluation and recognition lower extremity. (Formerly 5550:275)

**EXER:276 Athletic Training Lab II (1 Credit)**

Prerequisites: EXER 242 and EXER 243. Corequisite: EXER 275. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:276)

**EXER:300 Physiology of Exercise for the Older Adult (3 Credits)**

Prerequisite: EXER 302. Analysis of physiological effects of exercise on the elderly. Exercise programs adaptable for use by persons working with elderly. Three hours lecture. (Formerly 5550:300)

**EXER:302 Physiology of Exercise (3 Credits)**

Prerequisites: BIOL 200 and BIOL 202. A course designed to study the physiological effects of exercise relative to physical education activities, athletics and athletic training. Two hours lecture, two hours laboratory. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:302)

**EXER:305 Clinical Experience I (2 Credits)**

Prerequisite: Permission. Improves the student's psychomotor skills in the following domains of athletic training: injury prevention, injury recognition/evaluation and management, therapeutic exercise and rehabilitation. (Formerly 5550:305)



**EXER:327 Exercise Leadership (3 Credits)**

Prerequisite: EXER 302. Students learn principles of teaching safe and effective exercises designed to enhance physical fitness. Course will assist students in preparing for a group exercise certification. (Formerly 5550:327)

**EXER:330 Exercise and Weight Control (3 Credits)**

Prerequisite: EXER 302. Course will focus on role of exercise in regard to its positive influences on weight control. The hazards and implications of being overweight are studied. (Formerly 5550:330)

**EXER:332 Therapeutic Exercise & Rehabilitation I Principles (3 Credits)**

Prerequisites: EXER 342 and EXER 343. Corequisite: EXER 333. This course will address CAATE standards and guidelines for competencies and proficiencies using principles in exercise and rehabilitation techniques. (Formerly 5550:332)

**EXER:333 Athletic Training Lab IV (1 Credit)**

Prerequisites: EXER 342 and EXER 343. Corequisite: EXER 332. This course will allow students to learn psychomotor skills associated with therapeutic exercise & rehabilitation techniques. Includes a 250 hour clinical sport rotation. (Formerly 5550:333)

**EXER:342 Advanced Athletic Injury Management: Upper Extremity (3 Credits)**

Prerequisites: EXER 275 and EXER 276. Corequisite: EXER 343. This course designed to meet CAATE standards and guidelines to display knowledge and psychomotor skills in injury evaluation and recognition of the upper extremity. (Formerly 5550:342)

**EXER:343 Athletic Training Lab III (1 Credit)**

Prerequisites: EXER 275 and EXER 276. Corequisite: EXER 342. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:343)

**EXER:352 Strength & Conditioning Fundamentals (3 Credits)**

Prerequisite: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will address CAAHEP competencies and proficiencies in the area of strength and conditioning of physically active individuals. (Formerly 5550:352)

**EXER:355 Exercise in Special Populations (3 Credits)**

Prerequisites: EXER 302 and EXER 403. Advanced course in clinical exercise testing and prescription relative to disease of the cardiovascular, pulmonary, metabolic, musculoskeletal, neuromuscular, and immunologic systems. (Formerly 5550:355)

**EXER:360 Practicum I (1 Credit)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This is a senior level athletic training course focusing on the refinement of practical skills and preparation for the NATABOC certification examination. (Formerly 5550:360)

**EXER:400 Musculoskeletal Anatomy I: Upper Extremity (3 Credits)**

Prerequisites: BIOL 200 and BIOL 202. This course includes lecture/laboratory activities to provide the student a comprehensive learning experience in lower extremity musculoskeletal anatomy. (Formerly 5550:400)

**EXER:401 Musculoskeletal Anatomy II: Lower Extremity (3 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, BIOL 203 and EXER 201. This course includes lecture laboratory activities to provide the student a comprehensive learning experience in lower extremity musculoskeletal anatomy. (Formerly 5550:401)

**EXER:403 Exercise Testing (3 Credits)**

Prerequisite: EXER 302. This course will cover basic knowledge of exercise testing and interpretation of results. Cardiovascular and muscular fitness aspects will be measured. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:403)

**EXER:404 Exercise Prescription (3 Credits)**

Prerequisite: EXER 403. This course focuses on how to appropriately prescribe exercise for various populations (young, middle-aged, elderly, pregnant, diseased-states). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:404)

**EXER:405 Clinical Experience I (2 Credits)**

Prerequisite: Accepted into ATEP Clinical education program. Enroll by advisor permission only. This course will allow for athletic training students to master CAATE proficiencies and clinical proficiencies associated with the course. (Formerly 5550:405)

**EXER:406 Advanced Strength and Conditioning (3 Credits)**

Prerequisite: EXER 352. Strength and conditioning programs for heterogeneous populations. The course covers high-level sport specific exercise prescriptions that aids injury prevention and performance enhancement. (Formerly 5550:406)

**EXER:412 General Medical Aspects (3 Credits)**

Prerequisites: BIOL 200 and BIOL 201. Covers various topics related to sports medicine and general medical conditions. Students will gain perspectives and exposure to a variety of allied health care professionals. (Formerly 5550:412)

**EXER:415 Seminar in Athletic Training (2 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. To meet CAAHEP standards and guidelines and incorporate an even distribution of competencies and proficiencies throughout all athletic training for sports medicine courses. (Formerly 5550:415)

**EXER:418 Cardiorespiratory Function (3 Credits)**

Prerequisite: EXER 302. This course is designed to study the normal structure and function of the respiratory system and how it is affected by different types of disease. (Formerly 5550:418)

**EXER:426 Nutrition for Sports (3 Credits)**

This course will provide an explanation of the consumption, absorption, and recommendation for diet of athletes and the physically active individual. (Formerly 5550:426)

**EXER:430 Senior Honors Project:Physical Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program. Carefully defined individual study demonstrating originality and sustained inquiry. \*Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:430)

**EXER:438 Cardiac Rehab Principles (3 Credits)**

Prerequisite: EXER 302. This course will teach students the core competencies for cardiac rehab professionals, based upon the American Association of Cardiovascular and Pulmonary Rehabilitation Specialists (AAVCP). (Formerly 5550:438)

**EXER:440 Injury Management for Teachers & Coaches (2 Credits)**

Prerequisites: PHED 211. This course challenges the student to understand ways to provide and care for the safety of individual they teach or coach. (Formerly 5550:440)

**EXER:444 Athletic Training Lab V (1 Credit)**

Prerequisites: EXER 332 and EXER 333. Corequisite: EXER 445. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:444)

**EXER:445 Therapeutic Exercise & Rehabilitation II Applications (3 Credits)**

Prerequisites: EXER 332 and EXER 333. Corequisite: EXER 444. This course will address CAATE standards and guidelines for competencies and proficiencies using principles in exercise and rehabilitation techniques. (Formerly 5550:445)

**EXER:449 Organization & Administration for Health Care Professionals (3 Credits)**

Prerequisites: Senior level status and permission only. This class is a requirement for Athletic Trainers and Exercise Science majors. This class presents the skills necessary for supervising a health care facility. (Formerly 5550:449)

**EXER:456 Evidence Based Practice and Research Applications (3 Credits)**

Prerequisite: Permission of advisor. This course is designed to provide students an opportunity to review current research, create, implement, and present original research in an allied health related field. (Formerly 5550:456)

**EXER:459 Practicum Seminar (1 Credit)**

Prerequisite: Permission of instructor. This course will focus on the professional development process, including practicum preparation, resume development, interview skills and job search strategies. (Formerly 5550:459)

**EXER:460 Practicum in Physical Education (1-6 Credits)**

Prerequisites: Senior standing in the Sport Science and Wellness Program. Practical work experience with certified personnel in a discipline or profession related to physical education or sport and exercise science. May be repeated for a maximum of 12 credits. \*Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:460)

**EXER:465 Psychology of Injury Rehabilitation (2 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will address the cognitive and affective aspects of injury and rehabilitation of injury. Specifically the stages of rehabilitation and techniques to aid in the rehabilitation process. (Formerly 5550:465)

**EXER:467 Practicum II (1 Credit)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will allow the students to practice psychomotor skills in the high school setting while being supervised by a certified athletic trainer. (Formerly 5550:467)

**EXER:470 Injury Pathology & Therapeutic Interventions (3 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will discuss common musculoskeletal pathology and surgical procedure associated with a physically active population. (Formerly 5550:470)

**EXER:480 Special Topics: Physical Education (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics in physical education. May be repeated with change in topic. \*Students must be in the College of Education to take 300/400 level courses. (Formerly 5550:480)

**EXER:485 Exercise Science Capstone (2 Credits)**

Prerequisites: EXER 302 and EXER 403. Designed to familiarize students with current issues in exercise physiology. Students will be expected to obtain a professional certification during this course. (Formerly 5550:485)

## Dietetics, Coordinated BST

### Bachelor of Science in Dietetics, Coordinated (H40500BST)

More on the Dietetics, Coordinated major (<https://www.uakron.edu/nutritiondietetics/undergraduate-degrees/coordinated-program.dot>)

## Program Description

The Coordinated Program includes Supervised Experiential Learning within the final two years of study, during which students gain knowledge as well as clinical experience in three main areas: food service administration, medical nutrition therapy, and community nutrition. The Coordinated Program graduates are eligible for active membership in the Academy and may take the national registration examination following graduation until 2024 when there is a master's degree requirement. State licensure requirements must also be satisfied prior to practice in Ohio. Information about limited permits and licensure are provided during the program.

## Requirements for Admission

Students must meet a first-year requirement of a 3.0 GPA or better and attain at least a C or better in all courses, then the student will be eligible to apply to the Coordinated Program.

**Coordinated Program:** The Coordinated Program has suspended admissions to the program as of fall 2020 until further notice pending a program reorganization.

**Information regarding official application to the Coordinated Program** No new students are being admitted to the CP program as of fall 2020 until further notice. Normally students applying to the Coordinated Program should have a minimum GPA of 3.0, a 3.0 science GPA, and be prepared for heavy time commitment. Students accepted to the Coordinated Program complete a new Academic Program Agreement and are then advised by the Coordinated Program Director. Apply through the School of Exercise and Nutrition Sciences to be considered for program admission.

**Verification Statement:** The Coordinated Program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). The student's Academic Program Requirements include courses which meet the verification statement requirements.

Upon graduation, verification statements are signed by the Coordinated Program Director, indicating satisfactory completion of the program requirements. To earn a Verification Statement in CP, students must have a 3.0 GPA and obtain a grade of C (2.0) or better in the following courses (unless waived):

Code	Title	Hours
BIOL:130	Principles of Microbiology	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
CHEM:110	Introduction to General, Organic & Biochemistry I (Lecture)	3
CHEM:111	Introduction to General, Organic & Biochemistry I (Laboratory)	1

CHEM:112	Introduction to General, Organic & Biochemistry II (Lecture)	3	NUTR:485	Seminar in Health Professions	1-3
CHEM:113	Introduction to General, Organic & Biochemistry II (Laboratory)	1	NUTR:486	Staff Relief: Dietetics	2
STAT:250 or STAT:260	Statistics for Everyday Life Basic Statistics	3-4			
PSYC:100	Introduction to Psychology	3			
SOCIO:100	Introduction to Sociology	3			
ACCT:200 or COMM:211 & COMM:212	Accounting Principles for Non-business Majors Essentials of Financial Accounting and Basic Accounting II	3-6			
MGMT:301	Management: Principles & Concepts	3			
HCM:480	Introduction to Health-Care Management	3			
COMM:105 or COMM:106	Introduction to Public Speaking Effective Oral Communication	3			
NUTR:120	Career Decisions in Nutrition	1			
NUTR:133	Nutrition Fundamentals	3			
NUTR:228	Introduction to Medical Nutrition Therapy	3			
NUTR:250	Food Science Lecture	3			
NUTR:251	Food Science Lab	1			
NUTR:310	Food Systems Management I	4			
NUTR:314	Food Systems I Field Experience (DP only)	2			
NUTR:315	Food Systems Management I Supervised Experiential Learning (CP only)	2			
NUTR:328	Medical Nutrition Therapy I	3			
NUTR:400	Nutrition Education Skills with the General Public	3			
NUTR:403	Advanced Food Preparation	3			
NUTR:413	Food Systems Management II	3			
NUTR:424	Nutrition in Life Cycle	3			
NUTR:426	Human Nutrition	3			
NUTR:428	Medical Nutrition Therapy II	3			
NUTR:443	Nutrition Assessment	3			
NUTR:447	Senior Seminar	1			
NUTR:480	Community Nutrition I	3			
NUTR:482	Community Nutrition II	3			
NUTR:485	Seminar in Health Professions <sup>1</sup>	1-3			
NUTR:487	Sports Nutrition	3			
NUTR:489	Professional Preparation for Dietetics (DP only)	1			

<sup>1</sup> Topic must be Orientation to CP.

In addition, CP students must complete the following courses with a minimum of a B or with CR:

Code	Title	Hours
NUTR:315	Food Systems Management I Supervised Experiential Learning	2
NUTR:329	Medical Nutrition Therapy I Supervised Experiential Learning	2
NUTR:429	Medical Nutrition Therapy II Supervised Experiential Learning	2
NUTR:444	Long Term Care Supervised Experiential Learning	4
NUTR:481	Community Nutrition I-Supervised Experiential Learning	2
NUTR:484	Health and Wellness Clinical	4

Please note: Recentness of education requirements may need to be satisfied.

#### Important:

- If courses are taken out of the recommended sequence, graduation may be delayed.
- If General Organic Biochemistry classes were completed more than 5 years ago. Please see contact the School of Exercise and Nutrition Sciences for additional evaluation.
- To progress in the Nutrition majors, *students may not repeat any course required for the verification statement more than once*. If, after the first repeat, a student has not earned a "C" or better in a course, they will be dropped from the program.
- Once dropped, students will not be permitted to re-enter the dietetics program.

**Statement of Understanding:** Students are required to comply with the rules and regulations necessary to meet the foundation knowledge and skills for dietetics. Medical insurance, proof of immunization and a thorough criminal background check (BCI/FBI) for clinical experiences are required. The background check may reveal a student's unsealed and sealed criminal record.

**Student Academy of Nutrition & Dietetics (SAND):** The University of Akron Student Academy of Nutrition and Dietetics is open to all interested undergraduate and graduate students at the University. Its purpose is to stimulate interest in the dietetic profession, orient members to The Academy of Nutrition and Dietetics, and organize activities to involve members in programs for the public to help promote nutrition education. Contact the faculty advisor (330-972-6046), watch the Schrank bulletin board for meeting notices, and/or talk to one of the student officers for more information. New officers are elected yearly, and names are posted on the dietetics bulletin board.

**Scholarships:** Scholarships are available from various sources (including the School of Exercise and Nutrition Sciences and The Academy of Nutrition and Dietetics) throughout the school year. Information regarding scholarships and the application is posted on the dietetics bulletin board in Schrank Hall South. Deadlines for applications will vary. It is the student's responsibility to request letters of recommendation from the faculty if required. Email the application before the posted deadline dates as instructed online.

**Employment Opportunities:** A student majoring in Dietetics gains some knowledge and experience in all three areas of specialization: management, medical nutrition therapy, and community dietetics. Thus, rewarding positions may be found in a variety of settings: hospitals, schools and colleges, commercial food services, community agencies, health care agencies, with manufacturers and distributors, with family practice units and private physicians requiring the professional services of a registered dietitian, or in the area of food and nutrition research. Average salary for dietitians is approximately \$57,910 annually.

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion*

of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others. The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Required Courses	71
	Additional Credits for Graduation *	21
	<b>Total Hours</b>	<b>126</b>

\* This major requires a minimum of 126 credits

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
	<b>Total Hours</b>	<b>34</b>

## Required Courses

Code	Title	Hours
NUTR:120	Career Decisions in Nutrition	1
NUTR:133	Nutrition Fundamentals	3
NUTR:250	Food Science Lecture	3
NUTR:251	Food Science Lab	1
NUTR:310	Food Systems Management I	4
NUTR:315	Food Systems Management I Supervised Experiential Learning	2
NUTR:328	Medical Nutrition Therapy I	3

NUTR:329	Medical Nutrition Therapy I Supervised Experiential Learning	2
NUTR:340	Meal Management	3
NUTR:400	Nutrition Education Skills with the General Public	3
NUTR:401	Nutrition Counseling Skills	3
NUTR:403	Advanced Food Preparation	3
NUTR:426	Human Nutrition	3
NUTR:431	Healthcare Business and Research for Dietetics	3
NUTR:443	Nutrition Assessment	3
NUTR:487	Sports Nutrition	3
NUTR:413	Food Systems Management II	3
NUTR:424	Nutrition in Life Cycle	3
NUTR:428	Medical Nutrition Therapy II	3
NUTR:429	Medical Nutrition Therapy II Supervised Experiential Learning	2
NUTR:444	Long Term Care Supervised Experiential Learning	4
NUTR:447	Senior Seminar	1
NUTR:480	Community Nutrition I	3
NUTR:481	Community Nutrition I-Supervised Experiential Learning	2
NUTR:482	Community Nutrition II	3
NUTR:483	Community Nutrition II-Supervised Experiential Learning	2
NUTR:486	Staff Relief: Dietetics	2
	<b>Total Hours</b>	<b>71</b>

## Recommended Sequence

### 1st Year

Fall Semester	Hours
CHEM:114 Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115 Introduction to General, Organic & Biochemistry (Laboratory)	1
ENGL:111 English Composition I	3
SOCIO:100 Introduction to Sociology	3
NUTR:120 Career Decisions in Nutrition	1
NUTR:133 Nutrition Fundamentals	3
<b>Hours</b>	<b>15</b>

### Spring Semester

ENGL:222 Technical Report Writing	3
STAT:260 Basic Statistics	3
BIOL:130 Principles of Microbiology	3
PHIL:120 Introduction to Ethics	3
SOCIO:320 Social Inequalities	3
<b>Hours</b>	<b>15</b>

### 2nd Year

Fall Semester	Hours
ANAT:206 Applied Human Anatomy & Physiology I	3
ANAT:210 Applied Human Anatomy & Physiology Lab I	1
NUTR:250 Food Science Lecture	3
NUTR:251 Food Science Lab	1

NUTR:431	Healthcare Business and Research for Dietetics	3
PSYC:100	Introduction to Psychology	3
COMM:105	Introduction to Public Speaking	3
Hours		17

**Spring Semester**

ANAT:207	Applied Human Anatomy & Physiology II	3
ANAT:211	Applied Human Anatomy & Physiology Lab II	1
NUTR:400	Nutrition Education Skills with the General Public	3
BAHA:120	Medical Terminology	3
BAHA:121	Study of Disease Processes	3
NUTR:340	Meal Management	3
Hours		16

**3rd Year****Fall Semester**

NUTR:426	Human Nutrition	3
NUTR:443	Nutrition Assessment	3
NUTR:310	Food Systems Management I	4
NUTR:315	Food Systems Management I Supervised Experiential Learning	2
Arts Requirement		3
Hours		15

**Spring Semester**

NUTR:328	Medical Nutrition Therapy I	3
NUTR:329	Medical Nutrition Therapy I Supervised Experiential Learning	2
NUTR:487	Sports Nutrition	3
NUTR:403	Advanced Food Preparation	3
NUTR:413	Food Systems Management II	3
NUTR:401	Nutrition Counseling Skills	3
Hours		17

**Summer Semester**

NUTR:444	Long Term Care Supervised Experiential Learning	4
Hours		4

**4th Year****Fall Semester**

NUTR:428	Medical Nutrition Therapy II	3
NUTR:429	Medical Nutrition Therapy II Supervised Experiential Learning	2
NUTR:480	Community Nutrition I	3
NUTR:481	Community Nutrition I-Supervised Experiential Learning	2
NUTR:424	Nutrition in Life Cycle	3
Hours		13

**Spring Semester**

NUTR:447	Senior Seminar	1
NUTR:482	Community Nutrition II	3
NUTR:483	Community Nutrition II-Supervised Experiential Learning	2
NUTR:486	Staff Relief: Dietetics	2

Arts/Humanities Requirement	3
Global Diversity Requirement	3
Hours	14
Total Hours	126

## Exercise Science, Applied Exercise Physiology, BS

### Bachelor of Science in Exercise Science, Applied Exercise Physiology (555230BS)

More on the Applied Exercise Physiology major (<https://www.uakron.edu/sswe/programs/exercise-science/>)

## Contact Information

Dr. Judith A. Juvancic-Heltzel  
Interim School Director  
Exercise and Nutrition Sciences  
InfoCision 317  
(330) 972-6679  
[jaj52@uakron.edu](mailto:jaj52@uakron.edu)

Dr. Rachele Kappler  
Professor of Clinical Instruction  
Program Director - Exercise Science  
330-972-6524  
[kappler@uakron.edu](mailto:kappler@uakron.edu)

## Program Description

The exercise science major is designed to prepare students for employment in commercial, corporate, clinical, community and government agencies with interest in the areas of physical activity and health promotion. The program prepares students to sit for certification examinations such as American College of Sports Medicine Exercise Physiologist Certified and the National Strength and Conditioning Association Certified Strength and Conditioning Specialist.

All major coursework used for graduation requires a grade of C or better.

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade

in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		20
Pre-admission Courses		24
Required Courses		38
Applied Exercise Physiology Concentration Electives		38
<b>Total Hours</b>		<b>120</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Pre-admission Courses

Code	Title	Hours
EXER:125	Introduction to Exercise Science	1
BIOL:200	Human Anatomy & Physiology I	3
or ANAT:206	Applied Human Anatomy & Physiology I	
BIOL:201	Human Anatomy & Physiology Laboratory I	1
or ANAT:210	Applied Human Anatomy & Physiology Lab I	
BIOL:202	Human Anatomy & Physiology II	3
or ANAT:207	Applied Human Anatomy & Physiology II	
BIOL:203	Human Anatomy & Physiology Laboratory II	1
or ANAT:211	Applied Human Anatomy & Physiology Lab II	
ENGL:111	English Composition I	3

ENGL:112	English Composition II	3
PSYC:100	Introduction to Psychology	3
SOCIO:100	Introduction to Sociology	3
COMM:105	Introduction to Public Speaking	3
or COMM:106	Effective Oral Communication	
Mathematics, Statics, and Logic Requirement		3
<b>Total Hours</b>		<b>27</b>

## Required Courses

Code	Title	Hours
EXER:150	Concepts in Health & Fitness	3
EXER:201	Kinesiology	3
EXER:220	Health Promotion and Behavior Change	3
EXER:302	Physiology of Exercise	3
EXER:327	Exercise Leadership	3
EXER:330	Exercise and Weight Control	3
EXER:352	Strength & Conditioning Fundamentals	3
EXER:355	Exercise in Special Populations	3
EXER:403	Exercise Testing	3
EXER:404	Exercise Prescription	3
EXER:449	Organization & Administration for Health Care Professionals	3
EXER:460	Practicum in Physical Education	1-6
EXER:485	Exercise Science Capstone	2
<b>Total Hours</b>		<b>36-41</b>

## Applied Exercise Physiology Concentration Electives

Code	Title	Hours
<b>Complete 38 credits</b>		<b>38</b>
BAHA:120	Medical Terminology	
BAHA:230	Basic Pharmacology	
SPRT:100	Introduction to Sport Studies	
SPRT:160	Introduction to Coaching	
EXER:240	Care & Prevention of Athletic Injuries	
EXER:400	Musculoskeletal Anatomy I: Upper Extremity	
EXER:401	Musculoskeletal Anatomy II: Lower Extremity	
EXER:406	Advanced Strength and Conditioning	
EXER:412	General Medical Aspects	
EXER:418	Cardiorespiratory Function	
SPRT:424	Sports Leadership	
EXER:438	Cardiac Rehab Principles	
EXER:426	Nutrition for Sports	
HEDU:202	Stress Management	
MGMT:470	Sport Business Consulting Project	
SOWK:345	Death and Dying for Health Care Professionals	
SOWK:349	Integrated Human Behavior and Health	
<b>Total Hours</b>		<b>38</b>

## Recommended Sequence

### 1st Year

Fall Semester		Hours
BIOL:200	Human Anatomy & Physiology I <sup>1</sup>	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
ENGL:111	English Composition I <sup>1,2</sup>	3
PSYC:100	Introduction to Psychology	3
EXER:125	Introduction to Exercise Science	1
	Mathematics, Statistics, and Logic Requirement <sup>1</sup>	4
Hours		15

### Spring Semester

BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
ENGL:112	English Composition II <sup>1,2</sup>	3
SOCIO:100	Introduction to Sociology <sup>1</sup>	3
EXER:150	Concepts in Health & Fitness	3
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
Hours		16

### 2nd Year

#### Fall Semester

EXER:220	Health Promotion and Behavior Change	3
	Humanities Requirement	3
EXER:201	Kinesiology	3
	Elective course <sup>4</sup>	3
	Elective course <sup>4</sup>	3
Hours		15

#### Spring Semester

EXER:302	Physiology of Exercise	3
	Arts/Humanities Requirement	3
	Elective course <sup>4</sup>	3
	Elective course <sup>4</sup>	3
	Elective course <sup>4</sup>	3
Hours		15

### 3rd Year

#### Fall Semester

EXER:352	Strength & Conditioning Fundamentals	3
	Arts Requirement	3
	Elective course <sup>4</sup>	3
	Elective course <sup>4</sup>	3
EXER:327	Exercise Leadership	3
Hours		15

#### Spring Semester

EXER:403	Exercise Testing	3
	Complex Issues Requirement	3
	Elective course <sup>4</sup>	3
	Elective course <sup>4</sup>	3
	Elective course <sup>4</sup>	3
Hours		15

### 4th Year

#### Fall Semester

EXER:330	Exercise and Weight Control	3
	Elective course <sup>4</sup>	3
EXER:355	Exercise in Special Populations	3
EXER:404	Exercise Prescription	3
EXER:449	Organization & Administration for Health Care Professionals	3
Hours		15

#### Spring Semester

EXER:460	Practicum in Physical Education	1-6
EXER:485	Exercise Science Capstone	2
	Global Diversity Requirement	3
	Elective course <sup>4</sup>	3
	Elective course <sup>4</sup>	3
Hours		12-17
Total Hours		118-123

<sup>1</sup> Preadmission courses must average 2.5 GPA with an overall GPA of 2.75 or higher for admission to the program.

<sup>2</sup> ENGL:111 and ENGL:1212 must be completed with a grade C or better.

<sup>4</sup> See advisor for appropriate electives based on career choice

**Alert: By the end of your first 48 credit hours attempted, you must have completed your General Education Writing, Mathematics, Statistics, and Logic, and Speaking requirements.**

## Exercise Science, Coaching and Conditioning, BS

### Bachelor of Science in Exercise Science, Coaching and Conditioning (555231BS)

More on the Coaching and Conditioning major (<https://www.uakron.edu/sswe/programs/exercise-science/>)

#### \*Admission to this program has been suspended\*

The Exercise Science program has been reorganized and admission to this program has been suspended. Students interested in Coaching and Conditioning should now choose Bachelor of Science in Exercise Science, Applied Exercise Physiology (555230BS) to obtain the required coursework.

## Contact Information

Dr. Judith A. Juvancic-Heltzel  
Interim School Director  
Exercise and Nutrition Sciences  
InfoCision 317  
330-972-6679  
jaj52@uakron.edu

Dr. Rachele Kappler  
Professor of Clinical Instruction  
Program Director - Exercise Science  
330-972-6524  
kappler@uakron.edu

## Program Description

The Exercise Science major is designed to prepare students for employment in commercial, corporate, clinical, community and government agencies with interest in the areas of physical activity and health promotion. The program prepares students to sit for certification examinations such as American College of Sports Medicine Exercise Physiologist Certified and the National Strength and Conditioning Association Certified Strength and Conditioning Specialist.

All major coursework used for graduation requires a grade of C or better.

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Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
BIOL:200	Human Anatomy & Physiology I <sup>1</sup>	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
ENGL:111	English Composition I <sup>1,2</sup>	3
PSYC:100	Introduction to Psychology (Social Science) <sup>1</sup>	3
EXER:125	Introduction to Exercise Science	1
	Math Requirement <sup>1</sup>	4
	Hours	15
<b>Spring Semester</b>		
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
ENGL:112	English Composition II <sup>1,2</sup>	3
SOCIO:100	Introduction to Sociology <sup>1</sup>	3
EXER:150	Concepts in Health & Fitness	3
COMM:105 or COMM:106	Introduction to Public Speaking <sup>1</sup> or Effective Oral Communication	3
	Hours	16
<b>2nd Year</b>		
<b>Fall Semester</b>		
BAHA:120	Medical Terminology	3
PHED:235	Concepts of Motor Learning & Development	3
EXER:240	Care & Prevention of Athletic Injuries	3
HEDU:202	Stress Management	3
	Arts Requirement	3
	Hours	15
<b>Spring Semester</b>		
SPRT:160	Introduction to Coaching	3
EXER:201	Kinesiology	3

EXER:220	Health Promotion and Behavior Change	3
EXER:302	Physiology of Exercise	3
	Humanities Requirement	3
	Hours	15

### 3rd Year

#### Fall Semester

SPRT:375	Sport Performance Principles	3
EXER:400	Musculoskeletal Anatomy I: Upper Extremity	3
EXER:426	Nutrition for Sports	3
	Arts/Humanities Requirement	3
	Complex Issues Requirement	4
	Hours	16

#### Spring Semester

EXER:327	Exercise Leadership	3
EXER:352	Strength & Conditioning Fundamentals	3
EXER:401	Musculoskeletal Anatomy II: Lower Extremity	3
SPRT:409	Sport Behavior	3
	Global Diversity Requirement	3
	Hours	15

### 4th Year

#### Fall Semester

EXER:330	Exercise and Weight Control	3
EXER:403	Exercise Testing	3
EXER:406	Advanced Strength and Conditioning	3
EXER:449	Organization & Administration for Health Care Professionals	3
SPRT:462	Legal Aspects of Physical Activity	2
	Hours	14

#### Spring Semester

EXER:355	Exercise in Special Populations	3
EXER:404	Exercise Prescription	3
EXER:460	Practicum in Physical Education	1-6
EXER:485	Exercise Science Capstone	2
	Hours	9-14
	Total Hours	115-120

<sup>1</sup> Preadmission courses must average 2.5 GPA with an overall GPA of 2.75 or higher for admission to the program.

<sup>2</sup> Must be completed with a grade of C or better

## Exercise Science, Fitness Management, BS

### Bachelor of Science in Exercise Science, Fitness Management (555233BS)

More on the Fitness Management major (<https://www.uakron.edu/sswe/programs/exercise-science/>)

#### \*Admission to this program has been suspended\*

The Exercise Science program has been reorganized and admission to this program has been suspended. Students interested in Fitness



Management should now choose Bachelor of Science in Exercise Science, Applied Exercise Physiology (555230BS) to obtain the required coursework.

## Contact Information

Dr. Judith A. Juvancic-Heltzel  
Interim School Director  
Exercise and Nutrition Sciences  
InfoCision 317  
(330) 972-6679  
jaj52@uakron.edu

Dr. Rachele Kappler  
Professor of Clinical Instruction  
Program Director - Exercise Science  
330-972-6524  
kappler@uakron.edu

## Program Description

The Exercise Science major is designed to prepare students for employment in commercial, corporate, clinical, community and government agencies with interest in the areas of physical activity and health promotion. The program prepares students to sit for certification examinations such as American College of Sports Medicine Exercise Physiologist Certified and the National Strength and Conditioning Association Certified Strength and Conditioning Specialist.

All major coursework used for graduation requires a grade of C or better.

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
BIOL:200	Human Anatomy & Physiology I <sup>1</sup>	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
ENGL:111	English Composition I <sup>1,2</sup>	3
PSYC:100	Introduction to Psychology <sup>1</sup>	3
EXER:125	Introduction to Exercise Science	1
	Math Requirement <sup>1</sup>	3
	Hours	14
<b>Spring Semester</b>		
BIOL:202	Human Anatomy & Physiology II (Natural Science)	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
ENGL:112	English Composition II <sup>1,2</sup>	3

SOCIO:100	Introduction to Sociology (Social Science & Domestic Diversity) <sup>1</sup>	3
EXER:150	Concepts in Health & Fitness	3
COMM:105 or COMM:106	Introduction to Public Speaking <sup>1</sup> or Effective Oral Communication	3
	Hours	16
<b>2nd Year</b>		
<b>Fall Semester</b>		
BAHA:120	Medical Terminology	3
PHED:235	Concepts of Motor Learning & Development	3
EXER:240	Care & Prevention of Athletic Injuries	3
HEDU:202	Stress Management	3
	Art Requirement	3
	Hours	15
<b>Spring Semester</b>		
EXER:201	Kinesiology	3
EXER:220	Health Promotion and Behavior Change	3
EXER:426	Nutrition for Sports	3
SPRT:370	Financial Aspects of Sport	3
	Humanities Requirement	3
	Hours	15
<b>3rd Year</b>		
<b>Fall Semester</b>		
EXER:302	Physiology of Exercise	3
EXER:400	Musculoskeletal Anatomy I: Upper Extremity	3
SPRT:366	Sport Communication	3
SPRT:462	Legal Aspects of Physical Activity	2
	Arts/Humanities Requirement	3
	Hours	14
<b>Spring Semester</b>		
EXER:327	Exercise Leadership	3
EXER:352	Strength & Conditioning Fundamentals	3
EXER:401	Musculoskeletal Anatomy II: Lower Extremity	3
	Complex Issues Requirement	4
	Global Diversity Requirement	3
	Hours	16
<b>4th Year</b>		
<b>Fall Semester</b>		
EXER:330	Exercise and Weight Control	3
EXER:403	Exercise Testing	3
EXER:449	Organization & Administration for Health Care Professionals	3
SPRT:420	Fundamentals of Management Strategies in Sport	3
SPRT:422	Sport Planning/Promotion	3
	Hours	15
<b>Spring Semester</b>		
EXER:355	Exercise in Special Populations	3
EXER:404	Exercise Prescription	3
EXER:460	Practicum in Physical Education	1-6

EXER:485	Exercise Science Capstone	2
	Hours	9-14
	Total Hours	114-119

<sup>1</sup> preadmission courses must average 2.5 GPA with an overall GPA of 2.75 or higher for admission to the program.

<sup>2</sup> Must be completed with a grade of C or better

## Exercise Science, Pre-Professional Concentration, BS

### Bachelor of Science in Exercise Science, Pre-Professional Concentration (555232BS)

More on the Pre-Professional Concentration major (<https://www.uakron.edu/sswe/programs/exercise-science/>)

### Contact Information

Dr. Judith A. Juvancic-Heltzel  
Exercise and Nutrition Sciences  
InfoCision 317  
(330) 972-6679  
[jaj52@uakron.edu](mailto:jaj52@uakron.edu)

Dr. Rachele Kappler  
Professor of Clinical Instruction  
Program Director - Exercise Science  
330-972-6524  
[kappler@uakron.edu](mailto:kappler@uakron.edu)

### Program Description

The exercise science major is designed to prepare students for employment in commercial, corporate, clinical, community and government agencies with interest in the areas of physical activity and health promotion. The program prepares students to sit for certification examinations such as American College of Sports Medicine Exercise Physiologist Certified and the National Strength and Conditioning Association Certified Strength and Conditioning Specialist. Students choosing this pre-professional concentration can obtain the necessary pre-requisite courses for graduate programs including Physical Therapy, Occupational Therapy, Physician Assistant, Athletic Training, Doctor of Chiropractic, medical school and many other health profession advanced degrees.

All coursework within the major used for graduation requires a grade of C or better.

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer

process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	20
	Pre-admission Courses	24
	Required Courses	38
	Pre-Professional Concentration Electives	38
	Total Hours	120

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

### General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	Total Hours	34

### Pre-admission Courses

Code	Title	Hours
EXER:125	Introduction to Exercise Science	1
BIOL:200	Human Anatomy & Physiology I	3

BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
ENGL:111	English Composition I	3
ENGL:112	English Composition II	3
PSYC:100	Introduction to Psychology	3
SOCIO:100	Introduction to Sociology	3
COMM:105	Introduction to Public Speaking	3
or COMM:106	Effective Oral Communication	
Total Hours		24

## Required Courses

Code	Title	Hours
EXER:150	Concepts in Health & Fitness	3
EXER:201	Kinesiology	3
EXER:220	Health Promotion and Behavior Change	3
EXER:302	Physiology of Exercise	3
EXER:327	Exercise Leadership	3
EXER:330	Exercise and Weight Control	3
EXER:352	Strength & Conditioning Fundamentals	3
EXER:355	Exercise in Special Populations	3
EXER:403	Exercise Testing	3
EXER:404	Exercise Prescription	3
EXER:449	Organization & Administration for Health Care Professionals	3
EXER:460	Practicum in Physical Education	1-6
EXER:485	Exercise Science Capstone	2
Total Hours		36-41

## Pre-Professional Concentration Electives

Code	Title	Hours
<b>Complete 38 credits</b>		<b>38</b>
BAHA:120	Medical Terminology	
BAHA:230	Basic Pharmacology	
BIOL:111	Principles of Biology I	
BIOL:112	Principles of Biology II	
BIOL:130	Principles of Microbiology	
BIOL:211	General Genetics	
CHEM:151	Principles of Chemistry I	
CHEM:152	Principles of Chemistry I Laboratory	
CHEM:153	Principles of Chemistry II	
CHEM:154	Qualitative Analysis	
CHEM:263	Organic Chemistry Lecture I	
CHEM:401	Biochemistry Lecture I	
CHEM:402	Biochemistry Lecture II	
CHEM:264	Organic Chemistry Lecture II	
CHEM:265	Organic Chemistry Laboratory I	
CHEM:266	Organic Chemistry Laboratory II	
PHIL:361	Biomedical Ethics	
PHYS:261	Physics for Life Sciences I	
PHYS:262	Physics for Life Sciences II	
PSYC:230	Developmental Psychology	

PSYC:420	Abnormal Psychology	
EXER:240	Care & Prevention of Athletic Injuries	
EXER:332	Therapeutic Exercise & Rehabilitation I Principles	
EXER:412	General Medical Aspects	
EXER:438	Cardiac Rehab Principles	
EXER:418	Cardiorespiratory Function	
EXER:400	Musculoskeletal Anatomy I: Upper Extremity	
EXER:401	Musculoskeletal Anatomy II: Lower Extremity	
EXER:470	Injury Pathology & Therapeutic Interventions	
EXER:465	Psychology of Injury Rehabilitation	
HEDU:202	Stress Management	
Total Hours		38

## Recommended Sequence

### 1st Year

Fall Semester		Hours
BIOL:200	Human Anatomy & Physiology I <sup>1</sup>	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
ENGL:111	English Composition I <sup>1,2</sup>	3
MATH:145	Algebra for Calculus <sup>1,3</sup>	4
PSYC:100	Introduction to Psychology <sup>1</sup>	3
EXER:125	Introduction to Exercise Science	1
Hours		15

### Spring Semester

BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
ENGL:112	English Composition II <sup>1,2</sup>	3
SOCIO:100	Introduction to Sociology (meets Social Science & Domestic Diversity requirements) <sup>1</sup>	3
EXER:150	Concepts in Health & Fitness	3
COMM:106	Effective Oral Communication <sup>1</sup>	3
or COMM:105	or Introduction to Public Speaking	
Hours		16

### 2nd Year

#### Fall Semester

EXER:201	Kinesiology	3
	Humanities Requirement	3
	Elective course <sup>5</sup>	4
	Elective course <sup>5</sup>	3
	Elective course <sup>5</sup>	1
Hours		14

#### Spring Semester

EXER:220	Health Promotion and Behavior Change	3
	Art Requirement	3
	Elective course <sup>5</sup>	3
	Elective course <sup>5</sup>	2
	Elective course <sup>5</sup>	4
Hours		15

**3rd Year****Fall Semester**

EXER:302	Physiology of Exercise	3
EXER:352	Strength & Conditioning Fundamentals	3
	Arts/Humanities Requirement	3
	Elective course <sup>5</sup>	4
	Elective course <sup>5</sup>	4
	Hours	17

**Spring Semester**

EXER:460	Practicum in Physical Education	1-6
EXER:327	Exercise Leadership	3
	Elective course <sup>5</sup>	4
	Elective course <sup>5</sup>	3
	Hours	11-16

**4th Year****Fall Semester**

EXER:330	Exercise and Weight Control	3
EXER:403	Exercise Testing	3
EXER:449	Organization & Administration for Health Care Professionals	3
	Complex Issues Requirement	3-4
	Elective course <sup>5</sup>	4-3
	Hours	16

**Spring Semester**

EXER:355	Exercise in Special Populations	3
EXER:404	Exercise Prescription	3
EXER:485	Exercise Science Capstone	2
	Global Diversity Requirement	3
	Elective course <sup>5</sup>	3
	Hours	14
	Total Hours	118-123

<sup>1</sup> Preadmission courses must average 2.5 GPA with an overall GPA of 2.75 or higher for admission to the program.

<sup>2</sup> ENGL:111 and ENGL:112 must be completed with a grade of C or better.

<sup>3</sup> If a student is eligible for Precalculus, as needed for later science courses, the school recommends taking Basic Statistics instead of College Algebra. Many professional schools require a statistics class for admission. If a student places below Precalculus they may take both College Algebra and Basic Statistics.

<sup>5</sup> Please see advisor for information on elective to take based on professional school that is chosen.

## Food & Environmental Nutrition, BST Bachelor of Science in Food and Environmental Nutrition (H40112BST)

More on the Food and Environmental Nutrition major (<https://www.uakron.edu/nutritiondietetics/undergraduate-degrees/food-and-environmental-science.dot>)

## Program Description

Students obtaining a Bachelor of Science degree in Food and Environmental Nutrition will qualify for the food industry in food marketing, entrepreneurship, and food product design. This major creates professionals to provide the expertise to meet the challenges of the food industry. Employment is generally with food manufacturers and related businesses with an emphasis on marketing and the consumer. Students must meet the requirements to be admitted to the College of Health and Human Sciences, the School of Exercise and Nutrition Sciences, and the Food and Environmental Nutrition program.

## Requirements for Admission

Students need to meet the first year requirements with a 3.0 GPA and a C or better for all courses.

## Food and Environmental Nutrition Association (FENA)

The University of Akron Food and Environmental Nutrition Association is open to all interested undergraduate and graduate students at the University. The purpose of this organization is to introduce students to career opportunities in the food industry through plant tours, professional panels, and lively discussion about new technologies in the food industry. Contact the faculty advisor (330-972-8842), watch the FENA bulletin board for meeting notices, and/or talk to one of the student officers for more information. New officers are elected yearly, and names are posted on the FENA bulletin board.

## Important:

- If courses are taken out of the recommended sequence, graduation may be delayed.
- If General Organic Biochemistry classes were completed more than 5 years ago, please contact the School of Exercise and Nutrition Sciences for additional evaluation.
- To progress in FEN, the student must have a minimum GPA of 3.0 *and* have a C (2.00) or better in all of the prerequisite courses, which includes all of the courses listed in the first year on the curriculum guide.
- Once dropped, students will not be permitted to re-enter the FEN program.

## Scholarships

Scholarships are available from various sources (including the School of Exercise and Nutrition Sciences and The Institute of Food Technologists) throughout the school year. Information regarding scholarships is posted on the Nutrition Center bulletin board in Schrank Hall South. Deadlines for applications will vary; it is the student's responsibility to:

1. request application forms,
2. request letters of recommendation from the faculty if required, forms are generally available at the front desk, and
3. mail all materials to be received before the posted deadline dates.

## Employment Opportunities

The objective of the major is to provide a degree where graduates qualify for the food industry including food marketing, entrepreneurship, food product design and development, food regulation, food promotion, brand

development, community agriculture, and quality assurance/quality control.

## Career Center

Seniors should register with the Career Center ([www.uakron.edu/career](http://www.uakron.edu/career)) (<http://www.uakron.edu/career/>), keeping their addresses updated after graduation (no fee). Job opportunities and employer literature are also available in the Nutrition Center.

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	21
	Core Courses	39
	Other Required Courses	61
	<b>Total Hours</b>	<b>121</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
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Students pursuing a bachelor's degree must complete three tiers of General Education coursework. Tiers I and II provide students with foundational skills and breadth of disciplinary knowledge. Tier III courses require students to integrate knowledge, understand diverse perspectives, and think critically about complex issues. Courses tagged for Tier III may also fulfill major or Disciplinary Area requirements.

### Tier I: Academic Foundations **12**

*Quantitative Reasoning: 3 credit hours*

*Speaking: 3 credit hours*

*Writing: 6 credit hours*

### Tier II: Disciplinary Areas **22**

*Arts/Humanities: 9 credit hours*

*Natural Sciences: 7 credit hours*

*Social Sciences: 6 credit hours*

### Tier III: Tagged Courses

*Select one class from each of the following subcategories:*

Complex Systems

Critical Thinking

Domestic Diversity

## Global Diversity

*Review the General Education Requirements page for detailed course listings.*

Total Hours **34**

## Core Courses

Code	Title	Hours
NUTR:120	Career Decisions in Nutrition	1
NUTR:133	Nutrition Fundamentals	3
NUTR:250	Food Science Lecture	3
NUTR:251	Food Science Lab	1
NUTR:310	Food Systems Management I	4
NUTR:314	Food Systems I Field Experience	2
NUTR:321	Experimental Foods	3
NUTR:400	Nutrition Education Skills with the General Public	3
NUTR:412	Introduction to Regulatory Affairs	3
NUTR:340	Meal Management	3
NUTR:426	Human Nutrition	3
NUTR:447	Senior Seminar	1
NUTR:470	Food Industry: Analysis & Field Study	3
NUTR:474	Cultural Dimensions of Food	3
NUTR:476	Developments in Food Science	3
	<b>Total Hours</b>	<b>39</b>

## Other Required Courses

Code	Title	Hours
BIOL:130	Principles of Microbiology	3
ANAT:206	Applied Human Anatomy & Physiology I	3
ANAT:210	Applied Human Anatomy & Physiology Lab I	1
ANAT:207	Applied Human Anatomy & Physiology II	3
ANAT:211	Applied Human Anatomy & Physiology Lab II	1
ECON:200	Principles of Microeconomics	3
CHEM:114	Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115	Introduction to General, Organic & Biochemistry (Laboratory)	1
ENGL:111	English Composition I	3
ENGL:222	Technical Report Writing	3
STAT:260	Basic Statistics	3
PHIL:120	Introduction to Ethics	3
PSYC:100	Introduction to Psychology	3
SOCIO:100	Introduction to Sociology	3
ACCT:201	Accounting Principles I	3
ENTRE:201	Introduction to Entrepreneurship	3
MGMT:301	Management: Principles & Concepts	3
MKTG:205	Marketing Principles	3
MKTG:355	Consumer Behavior	3
MKTG:440	Brand Management	3
FPL:200	Foundations of Personal Finance	3
COMM:105	Introduction to Public Speaking	3

or COMM:106 Effective Oral Communication	
Total Hours	61

## Recommended Sequence

### 1st Year

Fall Semester	Hours
CHEM:114 Introduction to General, Organic & Biochemistry (Lecture) <sup>1</sup>	4
CHEM:115 Introduction to General, Organic & Biochemistry (Laboratory) <sup>1</sup>	1
ENGL:111 English Composition I <sup>1</sup>	3
STAT:260 Basic Statistics <sup>1</sup>	3
SOCIO:100 Introduction to Sociology <sup>1</sup>	3
NUTR:120 Career Decisions in Nutrition <sup>1</sup>	1
Hours	15

### Spring Semester

BIOL:130 Principles of Microbiology <sup>1</sup>	3
FPL:200 Foundations of Personal Finance	3
ENGL:222 Technical Report Writing <sup>1</sup>	3
COMM:105 Introduction to Public Speaking <sup>1</sup> or COMM:106 or Effective Oral Communication	3
NUTR:133 Nutrition Fundamentals <sup>1</sup>	3
Hours	15

### 2nd Year

#### Fall Semester

ANAT:206 Applied Human Anatomy & Physiology I	3
ANAT:210 Applied Human Anatomy & Physiology Lab I	1
PSYC:100 Introduction to Psychology	3
NUTR:250 Food Science Lecture	3
NUTR:251 Food Science Lab	1
Arts/Humanities Requirement	3
Hours	14

#### Spring Semester

ANAT:207 Applied Human Anatomy & Physiology II	3
ANAT:211 Applied Human Anatomy & Physiology Lab II	1
PHIL:120 Introduction to Ethics	3
ACCT:201 Accounting Principles I <sup>2</sup>	3
ACCT:201 Accounting Principles I	3
Arts Requirement	3
Hours	16

### 3rd Year

#### Fall Semester

NUTR:310 Food Systems Management I	4
NUTR:314 Food Systems I Field Experience	2
NUTR:400 Nutrition Education Skills with the General Public	3
NUTR:426 Human Nutrition	3
ECON:200 Principles of Microeconomics	3
Hours	15

#### Spring Semester

MGMT:301 Management: Principles & Concepts	3
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MKTG:205 Marketing Principles	3
NUTR:321 Experimental Foods	3
NUTR:340 Meal Management	3
NUTR:470 Food Industry: Analysis & Field Study	3
Hours	15

### 4th Year

#### Fall Semester

MKTG:355 Consumer Behavior	3
NUTR:412 Introduction to Regulatory Affairs	3
NUTR:474 Cultural Dimensions of Food	3
NUTR:476 Developments in Food Science	3
Elective <sup>4</sup>	3
Hours	15

#### Spring Semester

NUTR:447 Senior Seminar	1
MKTG:440 Brand Management	3
Complex Issues Requirement	3
Global Diversity Requirement	3
Elective <sup>4</sup>	3
Elective <sup>4</sup>	3
Hours	16
Total Hours	121

<sup>1</sup> Preadmission courses: A grade of C or higher is *required*. A minimum combined 3.0 GPA is required.

<sup>2</sup> COMM:211 Essentials of Financial Accounting *and* COMM:212 Basic Accounting II may be substituted for ACCT:201.

<sup>3</sup> A \$35.00 fee for Liability Insurance is collected as part of course fees and provides you with required malpractice coverage.

<sup>4</sup> A student in the FEN program will complete 9 credit hours of electives. Recommended Electives:

- MATH:221 Analytic Geometry-Calculus I
- BIOL:106 Exploring Biology
- BLAW:220 Legal & Social Environment of Business
- ANTH:320 The Anthropology of Food
- CHEM:263 Organic Chemistry Lecture I
- PHED:211 First Aid & Cardiopulmonary Resuscitation

A Business Administration Minor for Non-Business Majors is incorporated in this program. Student will need to contact a Business advisor to include the minor in their DPR.

**Alert: By the end of your first 48 credit hours attempted, you should have completed your General Education English, Math, and Oral Communication (Speech) requirements.**

## Nutrition, Minor

### Minor in Nutrition (H40113M)

The field of nutrition is interdisciplinary. A nutrition minor will be beneficial for future academic and employment opportunities, while improving personal nutrition, health, and lifestyle. Students will learn to differentiate evidence based nutrition science from misinformation, the principles of good nutrition and food preparation, sources and recommended amounts of essential nutrients, effects of nutritional deficiencies and excesses, and nutrition throughout the lifecycle. A minor

in nutrition will be beneficial for those studying health related fields and those interested in food industry or medical sales.

#### Program Contact

Nutrition Center  
210 Schrank Hall South  
330-972-2836  
nutritioncenter@uakron.edu

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Nutrition" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Core Requirements		9
Electives		9
Total Hours		18

## Core Requirements

Code	Title	Hours
NUTR:133	Nutrition Fundamentals	3
NUTR:228	Introduction to Medical Nutrition Therapy	3
NUTR:424	Nutrition in Life Cycle	3
Total Hours		9

## Electives

Code	Title	Hours
<b>Complete 9 credits from the following courses:</b>		
NUTR:132	Early Childhood Nutrition	3
NUTR:141	Food for the Family	3
NUTR:250	Food Science Lecture	3
NUTR:310	Food Systems Management I	3
NUTR:321	Experimental Foods	3
NUTR:328	Medical Nutrition Therapy I	3
NUTR:400	Nutrition Education Skills with the General Public	3
NUTR:412	Introduction to Regulatory Affairs	3
NUTR:426	Human Nutrition	3
NUTR:470	Food Industry: Analysis & Field Study	3
NUTR:474	Cultural Dimensions of Food	3
NUTR:476	Developments in Food Science	3
NUTR:480	Community Nutrition I	3
NUTR:487	Sports Nutrition	3
Total Hours		9

## Sport and Exercise Science Sport Coaching & Strength Training, Certificate

### Certificate in Sports & Exercise Science – Sport Coaching / Strength Conditioning (555204C)

#### Program Contact

Dr. Rachele Kappler  
Program Director, Exercise Science,  
School of Exercise and Nutrition Sciences  
330-972-6524  
kappler@uakron.edu

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Sports & Exercise Science – Sport Coaching / Strength Conditioning" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		20
Total Hours		20

## Required Courses

Code	Title	Hours
EXER:352	Strength & Conditioning Fundamentals	3
SPRT:409	Sport Behavior	3
SPRT:453	Principles of Coaching	3
EXER:460	Practicum in Physical Education <sup>1</sup>	9
SPRT:462	Legal Aspects of Physical Activity	2
Total Hours		20

<sup>1</sup> EXER:460 Practicum in Physical Education must be repeated for a total of 9 credits.

## Sport and Exercise Science Sport Management, Certificate

### Certificate in Sports & Exercise Science – Sport Management (555207C)

**\*Admission to this program has been suspended\***

#### Program Contact

Melissa D. Dreisbach, MS Ed.  
Program Director Sport Studies

330-972-4731  
mdk24@uakron.edu

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Certificate in Sports & Exercise Science – Sport Management” and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student’s record.

## Summary

Code	Title	Hours
Required Courses		20
Total Hours		20

## Required Courses

Code	Title	Hours
SPRT:100	Introduction to Sport Studies	3
SPRT:420	Fundamentals of Management Strategies in Sport	3
SPRT:422	Sport Planning/Promotion	3
PHED:450	Organization & Administration of Physical Education, Intramural and Athletics	3
PHED:452	Foundations of Sport Science, Physical and Health Education	3
EXER:460	Practicum in Physical Education <sup>1</sup>	5
Total Hours		20

<sup>1</sup> EXER:460 Practicum in Physical Education must be taken for a total of 5 credits.

## Sport Studies Coach Education, Minor

### Minor in Sports Studies - Coach Education (555235M)

#### Program Contact

Melissa D. Dreisbach, MS Ed.  
Program Director, Sport Studies  
330-972-4731  
mdk24@uakron.edu

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a “Minor in Sports Studies-Coach Education” and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student’s record. Please

refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		15
Electives		3
Total Hours		18

## Required Courses

Code	Title	Hours
SPRT:160	Introduction to Coaching	3
SPRT:375	Sport Performance Principles	3
SPRT:409	Sport Behavior	3
SPRT:410	Introduction to Sport Sociology	3
SPRT:453	Principles of Coaching	3
Total Hours		15

## Electives

Code	Title	Hours
<b>Select 3 credits of the following:</b>		<b>3</b>
SPRT:395	Field Experience	
EDCI:440	Literacy in the Content Areas	
EXER:480	Special Topics: Physical Education <sup>1</sup>	
Total Hours		3

<sup>1</sup> EXER:480 Special Topics: Physical Education should be an approved coaching class.

## Sport Studies, Coaching Education, BS

### Bachelor of Science in Education, Sport Studies Coaching Education (555235BS)

More on the Sport Management major (<https://www.uakron.edu/sswe/programs/sport-studies/>)

## Contact

Dr. Judith A. Juvancic-Heltzel  
Interim School Director  
Exercise and Nutrition Sciences  
InfoCision 317  
(330)972- 6679  
jaj52@uakron.edu

Melissa D. Dreisbach, MS Ed.  
Program Director - Sport Studies  
(330)972-4731  
mdk24@uakron.edu

## Program Description

A Bachelor’s degree in Sport Studies with a concentration in Athletic Coaching Education paves the way to a variety of career opportunities in the sport and recreation industry related to coaching.



The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Sports Studies Requirement	39-42
	Sports Studies Electives	18
	Athletic Coaching Education Concentration	16-19
	Additional Credits for Graduation *	13-7
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A grade of C or better in all 5550 courses is required for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
<b>Breadth of Knowledge</b>		<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
<b>Diversity</b>		
	Domestic Diversity	
	Global Diversity	
<b>Integrated and Applied Learning</b>		
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	

### Capstone

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## Sports Studies Requirement

Code	Title	Hours
SPRT:100	Introduction to Sport Studies	3
PHED:203	Measurement & Evaluation in Physical Education	3
PHED:235	Concepts of Motor Learning & Development	3
PHED:245	Adapted Physical Education	3
SPRT:362	Sport History	3
SPRT:364	Sport Ethics	3
SPRT:409	Sport Behavior	3
SPRT:410	Introduction to Sport Sociology	3
SPRT:424	Sports Leadership	3
PHED:450	Organization & Administration of Physical Education, Intramural and Athletics	3
PHED:452	Foundations of Sport Science, Physical and Health Education	3
SPRT:453	Principles of Coaching	3
SPRT:462	Legal Aspects of Physical Activity	2
EXER:480	Special Topics: Physical Education	1-4
	or PHED:490 Workshop in Physical Education	
	<b>Total Hours</b>	<b>39-42</b>

## Sports Studies Electives

Code	Title	Hours
<b>Select 18 credits:</b>		<b>18</b>
SPRT:xxx		
	<b>Total Hours</b>	<b>18</b>

## Athletic Coaching Education Concentration

Code	Title	Hours
SPRT:160	Introduction to Coaching	3
SPRT:375	Sport Performance Principles	3
SPRT:420	Fundamentals of Management Strategies in Sport	3
EXER:460	Practicum in Physical Education	4
<i>Complete 3-6 credit hours:</i>		<i>3-6</i>
EXER:480	Special Topics: Physical Education	
	<b>Total Hours</b>	<b>16-19</b>

## Recommended Sequence

1st Year		Hours
Fall Semester		
ENGL:111	English Composition I <sup>1,2</sup>	3
PSYC:100	Introduction to Psychology <sup>1</sup>	3
	Natural Science Requirement with Lab <sup>1</sup>	4

Math Requirement <sup>1</sup>	3
Hours	13
<b>Spring Semester</b>	
ENGL:112 English Composition II <sup>1,2</sup>	3
SOCIO:100 Introduction to Sociology	3
SPRT:100 Introduction to Sport Studies	3
Speech/Oral Communication Requirement <sup>1</sup>	3
Natural Science Requirement <sup>1</sup>	3
Hours	15
<b>2nd Year</b>	
<b>Fall Semester</b>	
SPRT:160 Introduction to Coaching	3
PHED:203 Measurement & Evaluation in Physical Education	3
SPRT:362 Sport History	3
SPRT:364 Sport Ethics	3
SPRT:xxx SSWE Electives	4
Hours	16
<b>Spring Semester</b>	
PHED:235 Concepts of Motor Learning & Development	3
PHED:245 Adapted Physical Education	3
SPRT:xxx SSWE Electives	6
Arts Requirement	3
Hours	15
<b>3rd Year</b>	
<b>Fall Semester</b>	
SPRT:375 Sport Performance Principles	3
PHED:452 Foundations of Sport Science, Physical and Health Education	3
Humanities Requirement	3
Complex Issues Requirement	3
SPRT:xxx SSWE Electives	4
Hours	16
<b>Spring Semester</b>	
SPRT:409 Sport Behavior	3
SPRT:410 Introduction to Sport Sociology	3
SPRT:453 Principles of Coaching	3
SPRT:462 Legal Aspects of Physical Activity	2
Arts or Humanities Requirement	3
Hours	14
<b>4th Year</b>	
<b>Fall Semester</b>	
SPRT:420 Fundamentals of Management Strategies in Sport	3
SPRT:424 Sports Leadership	3
EXER:480 Special Topics: Physical Education	3
EXER:480 Special Topics: Physical Education	3
SPRT:xxx SSWE Electives	3
Hours	15
<b>Spring Semester</b>	
PHED:450 Organization & Administration of Physical Education, Intramural and Athletics	3

EXER:460 Practicum in Physical Education	4
EXER:480 Special Topics: Physical Education	3
SPRT:xxx SSWE Electives	3
Global Diversity Requirement	3
Hours	16
Total Hours	120

<sup>1</sup> Preadmission courses must average 2.5 GPA with an overall GPA of 2.5 or higher for admission to the program.

<sup>2</sup> ENGL:111 English Composition I and ENGL:112 English Composition II must be completed with a "C" or better for admission to the major

**Alert:** By the end of your first 48 credit hours attempted, you must have completed your General Education Writing, Mathematics, Statistics and Logic, and Speaking requirements.

## Sport Studies, Sport Management, BS

### Bachelor of Science in Education, Sport Studies Sport Management (555236BS)

More on the Sport Management major (<https://www.uakron.edu/sswe/programs/sport-studies/>)

**\*Admission to this program has been suspended\***

### Contact Information

Dr. Judith Juvancic-Heltzel  
Interim School Director  
Exercise and Nutrition Sciences  
InfoCision 317  
(330)972-6679  
jaj52@uakron.edu

Melissa D. Dreisbach, MS Ed.  
Program Director - Sport Studies  
(330)972-4731  
mdk24@uakron.edu

### Program Information

A Bachelor's degree in Sport Studies with a concentration in Sport Management paves the way to a variety of career opportunities in the sport and recreation industry that involve leadership, management, coaching, programming, marketing, sales, finance and legal aspects.

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Sports Studies Requirement	41
	Sports Studies Electives	18
	Sport Studies Sport Management Concentration	19
	Additional Credits for Graduation *	8
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

Note: A grade of C or better in all 5550 courses is required for graduation.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	
	<i>Review the General Education Requirements page for detailed course listings.</i>	
	<b>Total Hours</b>	<b>34</b>

## Sports Studies Requirement

Code	Title	Hours
SPRT:100	Introduction to Sport Studies	3
PHED:203	Measurement & Evaluation in Physical Education	3
PHED:235	Concepts of Motor Learning & Development	3
PHED:245	Adapted Physical Education	3
SPRT:362	Sport History	3
SPRT:364	Sport Ethics	3
SPRT:409	Sport Behavior	3
SPRT:410	Introduction to Sport Sociology	3
SPRT:424	Sports Leadership	3
PHED:450	Organization & Administration of Physical Education, Intramural and Athletics	3

PHED:452	Foundations of Sport Science, Physical and Health Education	3
SPRT:453	Principles of Coaching	3
SPRT:462	Legal Aspects of Physical Activity	2
EXER:480 or PHED:490	Special Topics: Physical Education Workshop in Physical Education	3
	<b>Total Hours</b>	<b>41</b>

## Sports Studies Electives

Code	Title	Hours
<b>Select 18 credits:</b>		
SPRT:xxx		18
	<b>Total Hours</b>	<b>18</b>

## Sports Studies Sport Management Concentration

Code	Title	Hours
SPRT:366	Sport Communication	3
SPRT:368	Sport Facility Management	3
SPRT:370	Financial Aspects of Sport	3
SPRT:420	Fundamentals of Management Strategies in Sport	3
SPRT:422	Sport Planning/Promotion	3
EXER:460	Practicum in Physical Education	4
	<b>Total Hours</b>	<b>19</b>

## Recommended Sequence

Course	Title	Hours
<b>1st Year</b>		
<b>Fall Semester</b>		
ENGL:111	English Composition I <sup>1,2</sup>	3
PSYC:100	Introduction to Psychology <sup>1</sup>	3
	Natural Science Requirement with Lab <sup>1</sup>	4
	Math Requirement <sup>1</sup>	3
	<b>Hours</b>	<b>13</b>
<b>Spring Semester</b>		
ENGL:112	English Composition II <sup>1,2</sup>	3
SOCIO:100	Introduction to Sociology <sup>1</sup>	3
SPRT:100	Introduction to Sport Studies	3
	Speech/Oral Communication Requirement <sup>1</sup>	3
	Natural Science Requirement <sup>1</sup>	3
	<b>Hours</b>	<b>15</b>
<b>2nd Year</b>		
<b>Fall Semester</b>		
PHED:203	Measurement & Evaluation in Physical Education	3
SPRT:362	Sport History	3
SPRT:364	Sport Ethics	3
EXER:xxx	SSWE Electives	7
	<b>Hours</b>	<b>16</b>
<b>Spring Semester</b>		
PHED:235	Concepts of Motor Learning & Development	3

PHED:245	Adapted Physical Education	3
EXER:xxx	SSWE Electives	3
	Arts Requirement	3
	Arts or Humanities Requirement	3
	Hours	15

**3rd Year****Fall Semester**

SPRT:368	Sport Facility Management	3
SPRT:462	Legal Aspects of Physical Activity	2
	Humanities Requirement	3
EXER:xxx	SSWE Electives	7
	Hours	15

**Spring Semester**

SPRT:409	Sport Behavior	3
SPRT:410	Introduction to Sport Sociology	3
PHED:452	Foundations of Sport Science, Physical and Health Education	3
SPRT:453	Principles of Coaching	3
	Complex Issues Requirement	3
	Hours	15

**4th Year****Fall Semester**

SPRT:420	Fundamentals of Management Strategies in Sport	3
SPRT:422	Sport Planning/Promotion	3
SPRT:424	Sports Leadership	3
EXER:480	Special Topics: Physical Education	3
EXER:xxx	SSWE Elective	3
	Hours	15

**Spring Semester**

SPRT:366	Sport Communication	3
SPRT:370	Financial Aspects of Sport	3
PHED:450	Organization & Administration of Physical Education, Intramural and Athletics	3
EXER:460	Practicum in Physical Education	4
	Global Diversity Requirement	3
	Hours	16
	Total Hours	120

<sup>1</sup> Preadmission courses must average 2.5 GPA with an overall GPA of 2.5 or higher for admission to the program.

<sup>2</sup> ENGL:111 English Composition I and ENGL:112 English Composition II must be completed with a "C" or better for admission to the major.

**Alert:** by the end of your first 48 credit hours attempted, you must have completed your General Education Writing, Mathematics, Statistics and Logic, and Speaking requirements.

## Sport Studies, Sport Management, Minor

### Minor in Sports Studies - Sport Management (555236M)

**\*Admission to this program has been suspended\***

**Program Contact**

Melissa D. Dreisbach, MS Ed.  
 Program Director, Sport Studies,  
 330-972-4731  
 mdk24@uakron.edu

The following information has official approval of **The School of Exercise and Nutrition Sciences** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Sports Studies-Sport Management" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (<https://bulletin.uakron.edu/undergraduate/important-policies/graduation-requirements/#minor-req>) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		15
Electives		3
Total Hours		18

## Required Courses

Code	Title	Hours
SPRT:100	Introduction to Sport Studies	3
SPRT:370	Financial Aspects of Sport	3
SPRT:410	Introduction to Sport Sociology	3
SPRT:420	Fundamentals of Management Strategies in Sport	3
SPRT:424	Sports Leadership	3
Total Hours		15

## Electives

Code	Title	Hours
<b>Select 3 credits of the following:</b>		
SPRT:364	Sport Ethics	3
SPRT:366	Sport Communication	
SPRT:368	Sport Facility Management	
SPRT:409	Sport Behavior	
SPRT:422	Sport Planning/Promotion	
EXER:460	Practicum in Physical Education	
Total Hours		3

## Nursing

### Baccalaureate in Nursing Program (BSN)- Traditional option

The Traditional Baccalaureate program is designed for students pursuing their first degree in nursing. The baccalaureate curriculum is a six-semester sequence of courses that students take after completing University and School of Nursing prerequisites. Students have practice experiences in a variety of settings including hospitals, clinics, rehabilitation agencies, long-term care facilities, community health agencies, mental health agencies, pediatric agencies and home care settings.

### Accelerated Option for the Baccalaureate in Nursing Program

The accelerated option is designed for those students with completed baccalaureate degree program and prerequisites to earn a Bachelor of Science Degree in Nursing in four semesters - one academic year and two summers.

### LPN/BSN Sequence

This sequence is designed for LPNs who completed a practical nursing curriculum and licensed as a practicing LPN, as well as LPNs with bachelor's degrees in an area other than nursing. The pathway provides learning activities that build on prior knowledge and experience.

### RN to BSN Program

(This sequence is limited to registered nurse graduates of Associate Degree and Diploma nursing programs.)

The RN to BSN program is designed for the registered nurse with a diploma or associate degree of nursing. It is specifically designed for those who are interested in obtaining the baccalaureate degree in nursing and/or continuing on to a master's degree in nursing. The RN program consists of 31 hours of upper-division baccalaureate coursework. During the RN-BSN program, students may opt to take up to 3 graduate courses for a total of 8 credits towards their MSN. Continuation in the graduate program is predicated on meeting graduate program requirements and acceptance into the graduate nursing program.

- Nursing, BSN (p. 647)
- Nursing, BSN Accelerated (p. 649)
- Nursing, LPN/BSN (p. 652)
- Nursing, RN/BSN (p. 654)

## Nursing (NURS)

#### NURS:100 Introduction to Nursing (1 Credit)

Introduces students to influences of past, present, and future political, legal, social, and cultural processes on the nursing profession and the roles of nurses. (Formerly 8200:100)

#### NURS:211 Foundations of Nursing Practice I (5 Credits)

Prerequisite: Admission to the School of Nursing. This course focuses on basic concepts and skills needed by novice nursing students in order to care for clients. This course will focus on nurse-client relationships, communication, nursing process, psychomotor skills, and beginning pharmacology. Clinical experiences will reflect these concepts and skills. (Formerly 8200:211)

#### NURS:212 Foundations of Nursing Practice II (5 Credits)

Prerequisite: NURS 211. Builds on Foundations of Nursing Practice I focusing on promoting holistic well being across the lifespan. Clinicals are with children and adults, acute and non-acute settings. (Formerly 8200:212)

#### NURS:216 Transition to Baccalaureate Nursing (3 Credits)

Prerequisite: Admission to School of Nursing. This course emphasizes the transition from Licensed Practical Nurse to professional nurse. The LPN is introduced to the discipline of nursing from the baccalaureate perspective. (Formerly 8200:216)

#### NURS:217 Pathophysiology for Nurses (3 Credits)

Prerequisite: Admission to the School of Nursing. Develop understanding of basic concepts related to pathophysiologic mechanisms of health, illness as applied to nursing. Emphasis on application to nursing using the nursing process. (Formerly 8200:217)

#### NURS:225 Health Assessment (3 Credits)

Prerequisite: Admission to the School of Nursing. The skills of taking health histories and performance of basic physical assessment. Supervised practice in the Learning Resource Center. (Formerly 8200:225)

#### NURS:230 Nursing Pharmacology (3 Credits)

Prerequisite: Admission to the School of Nursing. Emphasis on fundamental concepts of pharmacology as applied to major drug classes, actions and effects. Application of nursing process to drug therapy across the lifespan. (Formerly 8200:230)

#### NURS:301 Cooperative Education (0 Credits)

(May be repeated). For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required. (Formerly 8000:301)

#### NURS:336 Concepts of Professional Nursing - RN Only (3 Credits)

Prerequisite: Admission to the RN/BSN sequence. Introduces the RN to baccalaureate nursing. Focuses on the relationship of concepts and theories to the role of the professional nurse. (Formerly 8200:336)

#### NURS:337 Health Assessment/RN - RN Only (3 Credits)

Prerequisite or corequisite: NURS 336. This three hour health assessment course is designed for the registered nurse. The course consists of both theory and independent laboratory practice. (Formerly 8200:337)

#### NURS:341 Professional Role Development (3 Credits)

Prerequisites: Admission to the School of Nursing and all sophomore level courses in the program of study. A professional engagement course designed to expose students to the essentials of the professional role of the baccalaureate generalist nurse. (Formerly 8200:341)

#### NURS:350 Nursing of the Childbearing Family (5 Credits)

Prerequisite: Satisfactory completion of Sophomore level nursing courses. A theoretical and clinical basis for care of the childbearing family in varying degrees of health and in a variety of settings. (Formerly 8200:350)

#### NURS:360 Nursing Care of Adults (5 Credits)

Prerequisite: Satisfactory completion of Sophomore level nursing courses. Acute nursing care of adults with nutrition, elimination, metabolic, sexual, reproductive, and immunological concerns. Includes theory and practice at the advanced beginner level. (Formerly 8200:360)

#### NURS:370 Nursing Care of Older Adults (5 Credits)

Prerequisite: Satisfactory completion of Sophomore level nursing courses. Acute nursing care of older adults with mobility, perception, circulation, and oxygenation concerns. Includes theory and practice at the advanced beginner level. (Formerly 8200:370)

**NURS:380 Mental Health Nursing (5 Credits)**

Prerequisite: Satisfactory completion of Sophomore level nursing courses. Assists students in developing knowledge and skills for providing care to individuals with mental health needs in a variety of settings. (Formerly 8200:380)

**NURS:401 RN Transition (1 Credit)**

Prerequisites: NURS 350, NURS 360, NURS 370, NURS 380 and NURS 341. Corequisites: any two, including NURS 410, NURS 430, NURS 435, NURS 440 and NURS 450. Prepares the Senior nursing student of the professional role by developing a resume, test taking strategies for the NCLEX RN exam and a resume. (Formerly 8200:401)

**NURS:405 Nursing Care of Healthy Individuals/Families - RN Only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Health care concepts across the lifespan with emphasis on health promotion and illness prevention for individuals, families, and groups are discussed. (Formerly 8200:405)

**NURS:406 Palliative Nursing Care - RN Only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Dimensions of end of life nursing care, including family dynamics, grief and loss, ethical considerations, physiologic changes and community resources are examined. (Formerly 8200:406)

**NURS:409 International Health (2-3 Credits)**

Prerequisite: Junior or greater standing. Study in an international location. Focuses on comparisons of education, ethics, government, demography and geography on health care and nursing roles and responsibilities. (Formerly 8200:409)

**NURS:410 Nursing of Families with Children (5 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, and NURS 380 with grades of C+ or better. Theoretical and clinical nursing course focused on the child within a family context. Health problems of both acute and chronic nature are explored. (Formerly 8200:410)

**NURS:412 Global Perspectives of Health and Health Care (2-3 Credits)**

Prerequisite: senior status. Cultural, political, educational, and economical perspectives of different regions of the world and the impact of these factors on health will be compared and examined. (Formerly 8200:412)

**NURS:415 Complex Care of Aging Families/RN only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Complex nursing issues related to care of aging individuals and families are explored. The nurse's role in physiological, emotional and psychosocial care is discussed. (Formerly 8200:415)

**NURS:430 Nursing in Complex & Critical Situations (5 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, NURS 380. Introduces advanced beginners to the complexity of nursing care in acute complex and critical situations of patients with multi-system failures. (Formerly 8200:430)

**NURS:435 Evidence Based Practice in Nursing (2 Credits)**

Prerequisite: Completion of NURS 341, NURS 350, NURS 360, NURS 370, NURS 380. Exploration of the effects of nursing research on the profession, become a knowledgeable consumer of research. (Formerly 8200:435)

**NURS:436 Nursing Research/RN Only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Exploration of the effects of nursing research on the profession and becoming a knowledgeable consumer of research. (Formerly 8200:436)

**NURS:440 Nursing of Communities (4 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, and NURS 380. A synthesis of nursing skills applied among various community populations. Health and illness care strategies within diverse population groups. (Formerly 8200:440)

**Gen Ed:** - Complex Issues Facing Society

**NURS:444 Community Engagement/RN (2 Credits)**

Corequisite: NURS 445. Prerequisite or Corequisite: NURS 336. This community engagement course provides experiences related to community health nursing in a variety of traditional and nontraditional community environments. (Formerly 8200:444)

**NURS:445 Nursing of Communities - RN Only (3 Credits)**

Corequisite: NURS 444. Prerequisite or Corequisite: NURS 336. This course provides a theoretical foundation for community, including public health nursing, to individuals and families in a variety of settings to diverse populations. (Formerly 8200:445)

**Gen Ed:** - Complex Issues Facing Society

**NURS:446 Professional Nursing Leadership - RN Only (3 Credits)**

Corequisite: NURS 447. Prerequisite or Corequisite: NURS 336. Issues related to nursing leadership, management, policy, and economic issues within the healthcare system that influence nursing practice are discussed. (Formerly 8200:446)

**NURS:447 Leadership Engagement/RN (2 Credits)**

Corequisite: NURS 446. Prerequisite or Corequisite: NURS 336. This leadership experience course offers the opportunity to implement leadership and management skills in a health care setting. (Formerly 8200:447)

**NURS:448 Professional Nursing Capstone - RN Only (3 Credits)**

Prerequisite: NURS 336. Prerequisites or Corequisites: NURS 337, NURS 405, NURS 406, NURS 415, NURS 436, NURS 444, NURS 445, NURS 446, and NURS 447. Opportunities to synthesize information and reflect on ethical, legal, cultural, and political dimensions of employment and patient care within the health care system are provided. (Formerly 8200:448)

**NURS:450 Senior Practicum and Nursing Leadership (5 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, and NURS 380. This course focuses on the application of leadership and management principles to the practice of nursing. Political, social, cultural, legal and ethical issues are explored. (Formerly 8200:450)

**NURS:453 School Nurse Practicum I (5 Credits)**

Prerequisites: HEDU 421/521 and HEDU 423/523. Prerequisite or corequisite: NURS 225/650. Emphasis on clinical primary health care nursing to enhance positive health behavior outcomes of well children and adolescents with minor conditions on family, community, school contexts. (Formerly 8200:453)

**NURS:454 School Nurse Practicum II (5 Credits)**

Prerequisite: HEDU 421/521, HEDU 423/523, NURS 225 or 650, NURS 453/553 or waiver. Emphasis on primary health care nursing to enhance positive health behavior outcomes of children/adolescents with minor common health or behavioral problems and chronic illnesses. (Formerly 8200:454)

**NURS:480 Senior Honors Project (1-4 Credits)**

Prerequisites: Honors Program Student, NURS 435 (Honor's Designated Section) Completion and presentation of an original investigation of a significant topic or creative work which must meet high standards of scholarship. (Formerly 8200:480)

**NURS:489 Special Topics: Nursing (1-4 Credits)**

(May be repeated as new topics are presented) Group studies of special topics in nursing. May not be used to meet requirements for the major in nursing. May be used for elective credit. (Formerly 8200:489)

**NURS:493 Workshop (1-4 Credits)**

(May be repeated as new topics are presented) Selected topics in nursing. May be used to meet undergraduate or graduate major requirements at the discretion of the department. (Formerly 8200:493)

**NURS:497 Independent Study: Nursing (1-3 Credits)**

Prerequisite: Permission of Director of Nursing Education, and good academic standing. Provides opportunity to develop greater depth in an area of nursing through methodology specific to discipline of nursing. (Formerly 8200:497)

## Nursing, BSN

### Bachelor of Science in Nursing (820000BSN)

More on the Nursing major (<https://www.uakron.edu/nursing/academic-programs/undergraduate-programs/bsn.dot>)

## Contact Information

School of Nursing  
Mary Gladwin Hall  
Student Success Center, Room 313  
(330) 972-6061

## Program Description

The traditional undergraduate nursing program provides the education needed earn a Registered Nurse license and begin work in an entry level nursing position or apply for graduate school.

**Admission Criteria:** BSN degree-seeking students must meet the minimum criteria listed below:

- 2.75 Prerequisite GPA. All prerequisites must be completed by the end of the spring semester before.
- 2.75 Prerequisite Science GPA

Students must earn at least a C in all prerequisite course courses. Grades of a C- or less must be repeated. (See School of Nursing Repeat Policy below)

Students are separated into two admission consideration categories and in each category they are ranked based on the prerequisite science GPA.

### Admission Consideration Categories

- **Priority Pool:** Pre-nursing students who were admitted or transferred to the school before the first day of spring semester, are prioritized by Pre-science GPA. Five seats are reserved for Army ROTC scholarship recipients.
- **Secondary Pool:** Any pre-nursing student or ICT students who has repeated a pre-admission science class will be placed in this category and are prioritized by science GPA. The top 5 students in this category whose science GPA is above the Priority Pool admission cut off will be offered a seat in the major.
- **Provisional Admission Criteria:** Direct admits to the CHP, pre-nursing or ICT students, intended nursing majors finishing prerequisites Summer session 1 and/or 2 can still be considered for admission

pending successful completion of the summer courses, if they meet the admission criteria listed above, and availability in the in the courses for the fall semester.

All students admitted to the Sophomore class, by August 1st will begin nursing coursework in the fall and take a six or eight semester course of study. Upon successful completion of the program, the student are granted the Bachelor of Science degree in Nursing. They may then apply to take the National Council Licensure Examination (NCLEX) for Registered Nurses.

**By the end of your first 48 credit hours attempted, you should have completed your General Education English, Math, and Oral Communication (Speech) requirements;**

**By the end of your first 48 credit hours attempted, you should have declared a major and transferred to (been accepted by) a degree granting college at The University of Akron.**

**School of Nursing Repeat Policy:** If School of Nursing Pre-Nursing students or students located in the Center for Academic Advising & Student Success or College of Applied Science & Technology do not achieve a C or higher in science prerequisite courses the first time they take them, they are allowed to repeat the course for a change of grade **one time only**. (UA policy allows for two repeats for change of grade.) If a student must take a science course for a third time in order to earn a grade of C or higher, the student will *no longer* be eligible for consideration for the nursing major until the previous science courses are 5 years old. This policy includes the repetition of a course originally taken at another institution or vice versa. All students must be aware that the repeat of a prerequisite science will automatically place them into the Secondary pool. Any student who has repeated a prerequisite science course, including those students who elect to repeat a science course which they have passed successfully ("illegal repeat" of a C or higher) in order to raise their entry GPA, will be placed in the Secondary pool, even if they had previously been in the Priority consideration pool.

**Transfer Students:** A student must be accepted by the University and have all course work applicable to the Nursing requirements evaluated by the respective UA departments with a copy of the departmental approval on the file by August 1st of the year of entry into School of Nursing. *All transfer prerequisites will be combined and averaged with those earned at the University of Akron. Transfer students who have been dismissed from a Nursing program at another institution are not eligible to apply to The University of Akron's Nursing program.*

**Notification of Admission:** Pending the outcome of spring semester, applicants completing pre-admission requirements will be notified of admission by June 30th. **Meeting minimum admission requirements does not guarantee admission.** Qualified students who do not receive admission will be placed on a waiting list which will be in effect through the first week of fall classes.

**Reapplication Process:** Applications for the College of Health Professions are only effective for the current academic year. A student meeting the minimum entry criteria but not admitted from the waiting list or denied admission will have their file remain in the School of Nursing as a pre-nursing student. These students will need to reapply during the next year's application period.

The School of Nursing reserves the right to approve admission to those individuals whose abilities, attitudes and character promise satisfactory achievement of the program of studies.

**\*\*\*Background Checks/Fingerprinting/Urine screen:** All Nursing students are subject to yearly thorough criminal background checks and urine screen at the students' expense. Both background checks may reveal a student's unsealed and sealed criminal record. Students are required to have a yearly TB test and flu vaccine as well as maintain current BLS Certification for the Healthcare Provider through the American Heart Association.

The following information has official approval of **The School of Nursing** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students who were admitted prior to fall 2021 would follow the program of study that was in effect at the time of their admission. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	8
	Preadmission Courses	30
	Nursing Core	82
	<b>Total Hours</b>	<b>120</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	
	<i>Speaking: 3 credit hours</i>	
	<i>Writing: 6 credit hours</i>	
	<b>Breadth of Knowledge</b>	<b>22</b>
	<i>Arts/Humanities: 9 credit hours</i>	
	<i>Natural Sciences: 7 credit hours</i>	
	<i>Social Sciences: 6 credit hours</i>	
	<b>Diversity</b>	
	Domestic Diversity	
	Global Diversity	
	<b>Integrated and Applied Learning</b>	
	<i>Select one class from one of the following subcategories:</i>	
	Complex Issues Facing Society	
	Capstone	

Review the General Education Requirements page for detailed course listings.

Total Hours	34
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## Preadmission Courses

Code	Title	Hours
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
CHEM:114	Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115	Introduction to General, Organic & Biochemistry (Laboratory)	1
ENGL:111	English Composition I	3
ENGL:112	English Composition II	3
STAT:250	Statistics for Everyday Life	3-4
or STAT:260	Basic Statistics	
PSYC:100	Introduction to Psychology	3
COMM:105	Introduction to Public Speaking	3
or COMM:106	Effective Oral Communication	
NURS:100	Introduction to Nursing	1
Total Hours		29-30

## Nursing Core

Code	Title	Hours
BIOL:130	Principles of Microbiology	3
PHIL:120	Introduction to Ethics	3
PSYC:230	Developmental Psychology	4
SOCIO:100	Introduction to Sociology	3
NUTR:316	Science of Nutrition	4
NURS:211	Foundations of Nursing Practice I	5
NURS:212	Foundations of Nursing Practice II	5
NURS:217	Pathophysiology for Nurses	3
NURS:225	Health Assessment	3
NURS:230	Nursing Pharmacology	3
NURS:341	Professional Role Development	3
NURS:350	Nursing of the Childbearing Family	5
NURS:360	Nursing Care of Adults	5
NURS:370	Nursing Care of Older Adults	5
NURS:380	Mental Health Nursing	5
NURS:401	RN Transition	1
NURS:410	Nursing of Families with Children	5
NURS:430	Nursing in Complex & Critical Situations	5
NURS:435	Evidence Based Practice in Nursing	2
NURS:440	Nursing of Communities	4
NURS:450	Senior Practicum and Nursing Leadership	5
Total Hours		81



## Recommended Sequence

### 1st Year

Fall Semester		Hours
BIOL:200	Human Anatomy & Physiology I <sup>1</sup>	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
CHEM:114	Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115	Introduction to General, Organic & Biochemistry (Laboratory)	1
ENGL:111	English Composition I <sup>1</sup>	3
STAT:250 or STAT:260	Statistics for Everyday Life <sup>1,3</sup> or Basic Statistics	3-4
NURS:100	Introduction to Nursing <sup>1</sup>	1
Hours		16-17

### Spring Semester

BIOL:202	Human Anatomy & Physiology II <sup>1</sup>	3
BIOL:203	Human Anatomy & Physiology Laboratory II <sup>1</sup>	1
ENGL:112	English Composition II <sup>1</sup>	3
PSYC:100	Introduction to Psychology <sup>1</sup>	3
COMM:105 or COMM:106	Introduction to Public Speaking <sup>1</sup> or Effective Oral Communication	3
Hours		13

### 2nd Year

Fall Semester		Hours
NUTR:316 or PSYC:230	Science of Nutrition <sup>4</sup> or Developmental Psychology	4
NURS:211	Foundations of Nursing Practice I	5
NURS:217	Pathophysiology for Nurses	3
NURS:225	Health Assessment	3
Hours		15

### Spring Semester

NURS:212	Foundations of Nursing Practice II	5
NURS:230	Nursing Pharmacology	3
NUTR:316 or PSYC:230	Science of Nutrition <sup>4</sup> or Developmental Psychology	4
BIOL:130	Principles of Microbiology <sup>4</sup>	3
Hours		15

### 3rd Year

Fall Semester		Hours
PHIL:120	Introduction to Ethics <sup>4</sup>	3
NURS:350	Nursing of the Childbearing Family <sup>5</sup>	5
NURS:360	Nursing Care of Adults <sup>5</sup>	5
Arts Requirement		3
Hours		16

### Spring Semester

SOCIO:100	Introduction to Sociology (meets Social Science & Domestic Diversity requirement) <sup>4</sup>	3
NURS:341	Professional Role Development	3
NURS:370	Nursing Care of Older Adults <sup>5</sup>	5
NURS:380	Mental Health Nursing <sup>5</sup>	5

Arts or Humanities Requirement	3
Hours	19

### 4th Year

Fall Semester		Hours
NURS:410	Nursing of Families with Children <sup>6</sup>	5
NURS:435	Evidence Based Practice in Nursing	2
NURS:440	Nursing of Communities <sup>6</sup>	4
Hours		11

### Spring Semester

NURS:401	RN Transition	1
NURS:430	Nursing in Complex & Critical Situations <sup>6</sup>	5
NURS:450	Senior Practicum and Nursing Leadership <sup>6</sup>	5
Global Diversity Requirement		3
Hours		14
Total Hours		119-120

<sup>1</sup> Preadmission courses: A grade of C or higher is required.

<sup>2</sup> It is strongly recommended that a student have recent high school algebra and chemistry. If algebra skills need updating, a student should see advisor for assistance. If a student has no high school chemistry, CHEM:101 Chemistry for Everyone should be taken prior to enrollment in CHEM:114 Introduction to General, Organic & Biochemistry (Lecture) and CHEM:115 Introduction to General, Organic & Biochemistry (Laboratory).

<sup>3</sup> The math requirement is STAT:260 Basic Statistics or STAT:250 Statistics for Everyday Life. A student may substitute STAT:261 Introductory Statistics I, STAT:262 Introductory Statistics II. Either option will fulfill the Mathematics, Statistics, and Logic requirement.

<sup>4</sup> Corequisite courses: A grade of C or higher is required.

<sup>5</sup> Junior level clinical courses may be taken in any order:

- NURS:350 Nursing of the Childbearing Family
- NURS:360 Nursing Care of Adults
- NURS:370 Nursing Care of Older Adults
- NURS:380 Mental Health Nursing

<sup>6</sup> Senior level clinical courses may be taken in any order:

- NURS:410 Nursing of Families with Children
- NURS:430 Nursing in Complex & Critical Situations
- NURS:440 Nursing of Communities
- NURS:450 Senior Practicum and Nursing Leadership

## Nursing, BSN Accelerated Bachelor of Science in Nursing, Accelerated (820200BS)

More on the Accelerated Nursing major (<https://www.uakron.edu/nursing/academic-programs/undergraduate-programs/second-degree-bsn.dot>)

## Contact Information

School of Nursing  
Mary Gladwin Hall  
Student Success Center, Room 313  
(330) 972-6061

## Program Description

The Accelerated BSN program is a four semester nursing program that provides the education needed to earn a Registered Nurse license and begin work in an entry level nursing position or apply to graduate school.

**Total credit hours for Accelerated BSN degree (including prerequisites):** 94-95 credits. The program begins in the summer semester and students complete the program in four semesters.

Progression in the program: Due to the sequencing of the courses, continued progress is dependent upon maintaining a minimum 2.3 nursing GPA and successful completion of C+ or higher in each nursing course.

## Application deadline:

The deadline to apply for the next May class is December 1st of the preceding year. If you are interested in applying after December 1st please contact the Student Enrollment Counselor for the accelerated option, Ms. Regena Ellis at ellisr@uakron.edu or 330-972-7554.

## Admission Requirements

- Complete a Second Degree Form (Application to the Program itself, available on the website).
- Baccalaureate degree from a regionally accredited four year college or university with a minimum cumulative GPA of 2.75 on a 4.0 scale.
- Admission to the University of Akron - students previously enrolled at The University of Akron must complete an Inter-College Transfer (ICT) to the School of Nursing.
- Able to maintain full time status.
- Pre-requisite science courses must have a minimum cumulative GPA of 2.75 on a 4.0 scale. Science courses must have a lab component.
- Complete all pre-requisites courses with a grade of "C" or higher. Science prerequisites may not be repeated more than once in order to achieve the "C" minimum.
- Completion of the prerequisite courses prior to beginning the first nursing course.
- Preference will be given to applicants who have completed the pre-requisite science courses within 5 years of application to the program.
- Two letters of recommendation.
- Resume.
- A 500-word Personal Statement addressing how you can contribute to the field of nursing.

Important note: Completion of all admission criteria does not guarantee admission to the accelerated program.

## Admission Procedures

Submit the Second Degree form along with copies of your transcripts to the School of Nursing, attention Accelerated Option. You will receive a written evaluation (Planning Sheet) of the prerequisites you have completed along with those that need to be completed. From this point forward, you must maintain close contact with the Student Enrollment Counselor for the accelerated option, Ms. Regena Ellis, in order to ensure proper progression towards entry into the program and to confirm continued interest for consideration for admission.

International students should contact the Office of International Programs for admission. If you have attended The University of Akron in

the past, you may need to reactivate your file by contacting the Office of Admissions.

**Prerequisite Courses:** The following list of prerequisite courses are offered at The University of Akron and Wayne College Campus, as well as Medina County University Center (MCUC). Prerequisites may be completed at any regionally accredited university or community college. However, to ensure transfer of credits, you are strongly advised to submit a course description prior to registering for approval from the Advisor/ Assistant Director. *All prerequisite courses must be completed by the start of the program in May.*

Code	Title	Hours
BIOL:130	Principles of Microbiology	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
PSYC:230	Developmental Psychology	4
CHEM:114	Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115	Introduction to General, Organic & Biochemistry (Laboratory)	1
NUTR:316	Science of Nutrition	4
STAT:250	Statistics for Everyday Life	4
PHIL:120	Introduction to Ethics	3
Total Hours		31

If you have any questions about the prerequisites or the program, please contact Ms Regena Ellis (ellisr@uakron.edu), Student Enrollment Counselor for the Accelerated Option. 330-972-7554

**\*\*\*Background Checks/Fingerprinting/Urine screen:** All Nursing students are subject to yearly thorough criminal background checks and urine screen at the students expense. Both background checks may reveal a student's unsealed and sealed criminal record. Students are required to have a yearly TB test and flu vaccine as well as maintain current BLS Certification for the Healthcare Provider through the American Heart Association.

## Change of Requirements

Without limiting the generality of its powers to alter, amend, or revoke rules and regulations, The University of Akron reserves the right to make changes in degree requirements of the student enrolled prior to the change by:

- Altering the number of credits and/or courses required in a major field of study
- Deleting courses
- Amending courses by increasing or decreasing the credits of specific courses
- Offering substitute courses in the same or cognate fields
- Changing the sequence of courses.

The following information has official approval of **The School of Nursing and The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students who were admitted prior to fall 2021 would follow the program of study that was in effect at the time of their

admission. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
Prerequisite Courses		30-31
Summer I		19
Fall		15
Spring		15
Summer II		16
Total Hours		95-96

## Prerequisite Courses

Code	Title	Hours
BIOL:130	Principles of Microbiology	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
STAT:250 or STAT:260	Statistics for Everyday Life Basic Statistics	3-4
CHEM:114	Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115	Introduction to General, Organic & Biochemistry (Laboratory)	1
PHIL:120	Introduction to Ethics	3
PSYC:230	Developmental Psychology	4
NUTR:316	Science of Nutrition	4
Total Hours		30-31

## Summer I

Code	Title	Hours
NURS:211	Foundations of Nursing Practice I	5
NURS:212	Foundations of Nursng Practice II	5
NURS:217	Pathophysiology for Nurses	3
NURS:225	Health Assessment	3
NURS:230	Nursing Pharmacology	3
Total Hours		19

## Fall

Code	Title	Hours
NURS:341	Professional Role Development	3
NURS:350	Nursing of the Childbearing Family	5
NURS:370	Nursing Care of Older Adults	5
NURS:435	Evidence Based Practice in Nursing	2
Total Hours		15

## Spring

Code	Title	Hours
NURS:360	Nursing Care of Adults	5
NURS:380	Mental Health Nursing	5
NURS:440	Nursing of Communities	4
Total Hours		14

## Summer II

Code	Title	Hours
NURS:401	RN Transition	1
NURS:410	Nursing of Families with Children	5
NURS:430	Nursing in Complex & Critical Situations	5
NURS:450	Senior Practicum and Nursing Leadership	5
Total Hours		16

## Recommended Sequence

### 1st Year

Summer Semester		Hours
NURS:211	Foundations of Nursing Practice I	5
NURS:212	Foundations of Nursng Practice II	5
NURS:217	Pathophysiology for Nurses	3
NURS:225	Health Assessment	3
NURS:230	Nursing Pharmacology	3
Hours		19

### 2nd Year

#### Fall Semester

NURS:341	Professional Role Development	3
NURS:350	Nursing of the Childbearing Family	5
NURS:370	Nursing Care of Older Adults	5
NURS:435	Evidence Based Practice in Nursing	2
Hours		15

#### Spring Semester

NURS:360	Nursing Care of Adults	5
NURS:380	Mental Health Nursing	5
NURS:440	Nursing of Communities	4
Hours		14

#### Summer Semester

NURS:401	RN Transition	1
NURS:410	Nursing of Families with Children	5
NURS:430	Nursing in Complex & Critical Situations	5
NURS:450	Senior Practicum and Nursing Leadership	5
Hours		16
Total Hours		64

**Total credit hours for Accelerated BSN degree (including prerequisites): 94-95.**

Progression in the program: Due to the sequencing of the courses, continued progress is dependent upon maintaining a minimum 2.3 nursing GPA and successful completion of C+ or higher in each nursing course.

# Nursing, LPN/BSN

## Bachelor of Science in Nursing, Licensed Practical Nurse (820003BS)

More on the Nursing-LPN major (<https://www.uakron.edu/nursing/academic-programs/undergraduate-programs/bsn-for-lpn.dot>)

### Contact Information

School of Nursing  
Mary Gladwin Hall  
Student Success Center, Room 313  
(330) 972-6061

### Program Description

The LPN to BSN nursing program provides students the education they need to earn a Registered Nurse license, begin work in an entry level nursing position and apply for graduate school.

### Requirements for Admission

All applicants must:

- Have graduated from an accredited LPN Program
- Hold a valid, unencumbered LPN License in the State of Ohio
- Complete all pre-requisites courses with a grade of C or better. Grades of a C- or lower must be repeated. (See School of Nursing Repeat Policy below)
- Complete a Progression to Major form with their academic Advisor
- Achieve a minimum 2.75 GPA in the science prerequisite courses.
- Achieve a minimum of 2.75 GPA in all the prerequisite courses (physical education and electives are not included in the calculations).

All students admitted to the Sophomore class by August 1st will begin nursing coursework in the fall and take a six or eight semester course of study. Upon successful completion of the program, the student is granted the Bachelor of Science degree in Nursing. They may then apply to take the National Council Licensure Examination (NCLEX) for Registered Nurses.

**School of Nursing Repeat Policy:** If School of Nursing Pre-Nursing students or students located in the Center for Academic Advising & Student Success or College of Applied Science & Technology do not achieve a C or higher in science prerequisite courses the first time they take them, they are allowed to repeat the course for a change of grade **one time only**. (UA policy allows for two repeats for change of grade.) If a student must take a science course for a third time in order to earn a grade of "C" or higher, the student will *no longer* be eligible for consideration for the nursing major until the previous science courses are 5 years old. This policy includes the repetition of a course originally taken at another institution or vice versa.

**Transfer Students:** A student must be accepted by the University and have all course work applicable to the Nursing requirements evaluated by the respective UA departments with a copy of the departmental approval on the file by August 1st of the year of entry into School of Nursing. All transfer prerequisites will be combined and averaged with those earned at the University of Akron. *Transfer students who have been dismissed from a Nursing program at another institution are not eligible to apply to The University of Akron's Nursing program.* Transfer students are eligible

to Intercollege Transfer to the School of Nursing after completing 12 credits at the University of Akron, completion of one or more core science courses and earning a 3.0 GPA at The University of Akron.

**Notification of Admission:** Pending the outcome of spring semester, all applicants will be notified of admission by June 30th. **Meeting minimum admission requirements does not guarantee admission.** Qualified students who do not receive admission will be placed on a waiting list which will be in effect through the first week of fall classes.

**Reapplication Process:** Applications for the College of Health Professions are only effective for the current academic year. A student meeting the minimum entry criteria but not admitted from the waiting list or denied admission will have their file remain in the School of Nursing as a pre-nursing student. These students will need to reapply during the next year's application period.

**\*\*\*Background Checks & Fingerprinting:** All Nursing students are subject to yearly thorough criminal background checks and urine screen at the students' expense. Background checks *may* reveal a student's unsealed and sealed criminal record.

The School of Nursing reserves the right to approve admission to those individuals whose abilities, attitudes and character promise satisfactory achievement of the program of studies.

The following information has official approval of **The School of Nursing and The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students who were admitted prior to fall 2021 would follow the program of study that was in effect at the time of their admission. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	7
	Preadmission Courses	42
	Nursing Core	72
	<b>Total Hours</b>	<b>121</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

### General Education Courses

Code	Title	Hours
	Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.	
	<b>Academic Foundations</b>	<b>12</b>
	<i>Mathematics, Statistics and Logic: 3 credit hours</i>	

Speaking: 3 credit hours	
Writing: 6 credit hours	
<b>Breadth of Knowledge</b>	<b>22</b>
Arts/Humanities: 9 credit hours	
Natural Sciences: 7 credit hours	
Social Sciences: 6 credit hours	
<b>Diversity</b>	
Domestic Diversity	
Global Diversity	
<b>Integrated and Applied Learning</b>	
Select one class from one of the following subcategories:	
Complex Issues Facing Society	
Capstone	
Review the General Education Requirements page for detailed course listings.	
<b>Total Hours</b>	<b>34</b>

## Preadmission Courses

Code	Title	Hours
BIOL:130	Principles of Microbiology	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
CHEM:114	Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115	Introduction to General, Organic & Biochemistry (Laboratory)	1
ENGL:111	English Composition I	3
ENGL:112	English Composition II	3
STAT:250 or STAT:260	Statistics for Everyday Life Basic Statistics	3-4
PHIL:120	Introduction to Ethics	3
PSYC:100	Introduction to Psychology	3
PSYC:230	Developmental Psychology	4
SOCIO:100	Introduction to Sociology	3
COMM:105 or COMM:106	Introduction to Public Speaking Effective Oral Communication	3
<b>Total Hours</b>		<b>41-42</b>

## Nursing Core

Code	Title	Hours
NUTR:316	Science of Nutrition	4
NURS:211	Foundations of Nursing Practice I	5
NURS:212	Foundations of Nursing Practice II	5
NURS:216	Transition to Baccalaureate Nursing	3
NURS:217	Pathophysiology for Nurses	3
NURS:225	Health Assessment	3
NURS:230	Nursing Pharmacology	3
NURS:341	Professional Role Development	3
NURS:350	Nursing of the Childbearing Family	5
NURS:360	Nursing Care of Adults	5

NURS:370	Nursing Care of Older Adults	5
NURS:380	Mental Health Nursing	5
NURS:401	RN Transition	1
NURS:410	Nursing of Families with Children	5
NURS:430	Nursing in Complex & Critical Situations	5
NURS:435	Evidence Based Practice in Nursing	2
NURS:440	Nursing of Communities	4
NURS:450	Senior Practicum and Nursing Leadership	5
<b>Total Hours</b>		<b>71</b>

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I <sup>1</sup>	3
BIOL:200 Human Anatomy & Physiology I <sup>1</sup>	3
CHEM:114 Introduction to General, Organic & Biochemistry (Lecture)	4
CHEM:115 Introduction to General, Organic & Biochemistry (Laboratory)	1
BIOL:201 Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
STAT:250 or STAT:260 Statistics for Everyday Life <sup>1,2</sup> or Basic Statistics	3-4
<b>Hours</b>	<b>15-16</b>

### Spring Semester

ENGL:112 English Composition II <sup>1</sup>	3
BIOL:202 Human Anatomy & Physiology II <sup>1</sup>	3
BIOL:203 Human Anatomy & Physiology Laboratory II <sup>1</sup>	1
PSYC:100 Introduction to Psychology <sup>1</sup>	3
COMM:105 or COMM:106 Introduction to Public Speaking <sup>1</sup> or Effective Oral Communication	3
<b>Hours</b>	<b>13</b>

### 2nd Year

#### Fall Semester

PSYC:230 or NUTR:316 Developmental Psychology <sup>4</sup> or Science of Nutrition	4
NURS:211 Foundations of Nursing Practice I (Credit by Exam)	5
NURS:216 Transition to Baccalaureate Nursing	3
NURS:217 Pathophysiology for Nurses	3
NURS:225 Health Assessment	3
<b>Hours</b>	<b>18</b>

#### Spring Semester

BIOL:130 Principles of Microbiology <sup>4</sup>	3
NUTR:316 or PSYC:230 Science of Nutrition <sup>4</sup> or Developmental Psychology	4
NURS:212 Foundations of Nursing Practice II	5
NURS:230 Nursing Pharmacology	3
<b>Hours</b>	<b>15</b>

### 3rd Year

#### Fall Semester

NURS:350 Nursing of the Childbearing Family <sup>5</sup>	5
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NURS:360	Nursing Care of Adults <sup>5</sup>	5
PHIL:120	Introduction to Ethics <sup>4</sup>	3
	Arts Requirement	3
	Hours	16
<b>Spring Semester</b>		
SOCIO:100	Introduction to Sociology <sup>4</sup>	3
NURS:341	Professional Role Development	3
NURS:370	Nursing Care of Older Adults <sup>5</sup>	5
NURS:380	Mental Health Nursing <sup>5</sup>	5
	Arts or Humanities Requirement	3
	Hours	19
<b>4th Year</b>		
<b>Fall Semester</b>		
NURS:410	Nursing of Families with Children <sup>6</sup>	5
NURS:435	Evidence Based Practice in Nursing	2
NURS:430	Nursing in Complex & Critical Situations <sup>6</sup>	5
	Hours	12
<b>Spring Semester</b>		
NURS:401	RN Transition	1
NURS:440	Nursing of Communities (meets Complex Issues Requirement) <sup>6</sup>	4
NURS:450	Senior Practicum and Nursing Leadership <sup>6</sup>	5
	Global Diversity Requirement	3
	Hours	13
	Total Hours	121-122

<sup>1</sup> Preadmission courses: A grade of C or better is required.

<sup>2</sup> The math requirement is STAT:260 Basic Statistics or STAT:250 Statistics for Everyday Life. A student may substitute STAT:261 Introductory Statistics I, STAT:262 Introductory Statistics II. Either option will fulfill the Mathematics, Statistics, and Logic requirement.

<sup>3</sup> It is strongly recommended that a student have recent high school algebra and chemistry. If algebra skills need updating, a student should see advisor for assistance. If a student has no high school chemistry, CHEM:101 Chemistry for Everyone should be taken prior to enrollment in CHEM:114 Introduction to General, Organic & Biochemistry (Lecture) and CHEM:115 Introduction to General, Organic & Biochemistry (Laboratory).

<sup>4</sup> Corequisite courses: A grade of "C" or higher is required.

<sup>5</sup> Junior level clinical courses may be taken in any order:

- NURS:350 Nursing of the Childbearing Family
- NURS:360 Nursing Care of Adults
- NURS:370 Nursing Care of Older Adults
- NURS:380 Mental Health Nursing

<sup>6</sup> Senior level clinical courses may be taken in any order:

- NURS:410 Nursing of Families with Children
- NURS:430 Nursing in Complex & Critical Situations
- NURS:440 Nursing of Communities
- NURS:450 Senior Practicum and Nursing Leadership

## Nursing, RN/BSN

### Bachelor of Science in Nursing, RN/BSN (820002BS)

The RN to BSN program is designed for the registered nurse with a diploma or associate degree of nursing from an accredited program. It is especially designed for those who are interested in obtaining a baccalaureate degree in nursing. The program also offers a pathway for continuing on to a master's degree in nursing.

The RN program consists of 31 hours of upper-division baccalaureate coursework (one calendar year full time; part time options available). Students may opt to take up to 3 graduate courses for a total of 8 credits towards their MSN. Continuation in the graduate program is predicated on meeting graduate program requirements and acceptance into the graduate nursing program.

#### CONTACT INFORMATION

School of Nursing  
Mary Gladwin Hall  
Student Success Center, Room 313  
(330) 972-6061

#### ADMISSION REQUIREMENTS

1. Valid unencumbered license as a registered nurse in the United States.
2. Admission to the University of Akron and School of Nursing.
3. Complete all prerequisites courses with a grade of C or higher. Grades of C- must be repeated. Minimum cumulative GPA must be 2.0 or above.

#### ADMISSION PROCEDURES

All RN students are admitted directly to the School of Nursing as undergraduates. School of Nursing advisors will guide the student as to the pre and co-requisite courses needed and develop a plan of study that will best meet the student's needs.

#### LOCATIONS

Distance Learning Option: Attend classes in at one of four locations:

- Akron (Main Campus)
- Medina ([Medina County University Center \(https://www.uakron.edu/mcuc/\)](https://www.uakron.edu/mcuc/))
- Kirtland ([The Holden University Center at Lakeland Community College \(http://www.lakelandcc.edu/web/holden/home/\)](http://www.lakelandcc.edu/web/holden/home/))
- Orrville ([Wayne College \(http://wayne.uakron.edu/\)](http://wayne.uakron.edu/))

Separately, we also offer the same program 100% online.

- UA's RN to BSN online option (<https://www.uakron.edu/nursing/academic-programs/undergraduate-programs/rn-to-bsn-online/>)

Code	Title	Hours
<b>Prerequisite courses for entry into the RN-to-BSN sequence</b>		
BIOL:130	Principles of Microbiology	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3

BIOL:203	Human Anatomy & Physiology Laboratory II	1
	Any Chemistry course with a lab	4
<b>Corequisite courses for the RN-to-BSN sequence</b>		
ENGL:111	English Composition I	3
ENGL:112	English Composition II	3
STAT:250	Statistics for Everyday Life	4
PSYC:100	Introduction to Psychology	3
PSYC:230	Developmental Psychology	4
COMM:105	Introduction to Public Speaking	3
or COMM:106	Effective Oral Communication	
ANTH:101	Human Cultures	3
PHIL:120	Introduction to Ethics	3
	Global Diversity Requirement	3
	Arts or Humanities Requirement	3
*CLEP options available (Credit by Examination)		

**Nursing Courses for RN-to-BSN**

NURS:336	Concepts of Professional Nursing - RN Only	3
NURS:337	Health Assessment/RN - RN Only	3
NURS:405	Nursing Care of Healthy Individuals/Families - RN Only	3
NURS:406	Palliative Nursing Care - RN Only	3
NURS:415	Complex Care of Aging Families/RN only	3
NURS:436	Nursing Research/RN Only	3
NURS:444	Community Engagement/RN	2
NURS:445	Nursing of Communities - RN Only	3
NURS:446	Professional Nursing Leadership - RN Only	3
NURS:447	Leadership Engagement/RN	2
NURS:448	Professional Nursing Capstone - RN Only	3

The following information has official approval of **The School of Nursing** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students who were admitted prior to fall 2021 would follow the program of study that was in effect at the time of their admission. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	Bypass Credit	36
	Prerequisite Courses	15
	Corequisite Courses	35
	Nursing Courses	31
	Additional Credits for Graduation *	3
<b>Total Hours</b>		<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Bypass credit for entry into the RN-to-BSN sequence

Code	Title	Hours
NURS:211	Foundations of Nursing Practice I	5
NURS:217	Pathophysiology for Nurses	3
NURS:230	Nursing Pharmacology	3
NURS:350	Nursing of the Childbearing Family	5
NURS:360	Nursing Care of Adults	5
NURS:370	Nursing Care of Older Adults	5
NURS:380	Mental Health Nursing	5
NURS:410	Nursing of Families with Children	5
<b>Total Hours</b>		<b>36</b>

## Prerequisite courses for entry into the RN-to-BSN sequence

Code	Title	Hours
BIOL:130	Principles of Microbiology	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
NURS:202		
NURS:203		
BIOL:XXX	Any Chemistry course with a lab	4
<b>Total Hours</b>		<b>11</b>

## Corequisite courses for the RN-to-BSN sequence

Code	Title	Hours
ANTH:150		0-3
or SOCIO:100	Introduction to Sociology	
ENGL:111	English Composition I	3
ENGL:112	English Composition II	3
STAT:250	Statistics for Everyday Life	3-4
or STAT:260	Basic Statistics	
PHIL:120	Introduction to Ethics	3
PSYC:100	Introduction to Psychology	3
PSYC:230	Developmental Psychology	4
COMM:105	Introduction to Public Speaking	3
or COMM:106	Effective Oral Communication	
	Global Diversity Requirement	3
	Arts/Humanities Requirement	6
<b>Total Hours</b>		<b>31-35</b>

## Nursing courses for RN-to-BSN

Code	Title	Hours
NURS:336	Concepts of Professional Nursing - RN Only	3
NURS:337	Health Assessment/RN - RN Only	3
NURS:405	Nursing Care of Healthy Individuals/Families - RN Only	3

NURS:406	Palliative Nursing Care - RN Only	3
NURS:415	Complex Care of Aging Families/RN only	3
NURS:436	Nursing Research/RN Only	3
NURS:444	Community Engagement/RN	2
NURS:445	Nursing of Communities - RN Only	3
NURS:446	Professional Nursing Leadership - RN Only	3
NURS:447	Leadership Engagement/RN	2
NURS:448	Professional Nursing Capstone - RN Only	3
Total Hours		31

## Recommended Sequence

### Semester One

Code	Title	Hours
NURS:336	Concepts of Professional Nursing - RN Only	3
NURS:337	Health Assessment/RN - RN Only	3
NURS:405	Nursing Care of Healthy Individuals/Families - RN Only	3
NURS:445	Nursing of Communities - RN Only	3
Total Hours		12

### Semester Two

Code	Title	Hours
NURS:446	Professional Nursing Leadership - RN Only	3
NURS:436	Nursing Research/RN Only	3
NURS:444	Community Engagement/RN	2
NURS:406	Palliative Nursing Care - RN Only	3
NURS:447	Leadership Engagement/RN	2
Total Hours		13

### Semester Three

Code	Title	Hours
NURS:415	Complex Care of Aging Families/RN only	3
NURS:448	Professional Nursing Capstone - RN Only	3
	Global Diversity Requirement	3
	Art/Humanities Requirement	3
Total Hours		12

## Social Work

### Social Work

Consistent with the mission of The University of Akron and the College of Health and Human Sciences, the mission of the undergraduate social work program is to prepare students for competent and effective generalist practice. The goals of the undergraduate social work program are to:

1. prepare students to integrate the knowledge, values and skills of the social work profession for competent and effective generalist practice with diverse client systems in various practice settings;
2. prepare students to identify the strengths and abilities of diverse client systems to foster empowerment toward social justice and systematic well-being; and

3. prepare students to utilize theoretically-based social work research, knowledge and critical thinking skills for effective and ethical social work practice.

The social work major is an accredited undergraduate professional program preparing students for entry-level practice positions in social service agencies employing Social Workers.

Elective courses are available in such areas as health, child welfare, mental health, grant writing, family service, corrections, etc. Certificate programs in Pan-American Studies, Addiction Services, Gerontology (Aging) and Victim Studies can be scheduled within the elective framework of the curriculum.

The Bachelor of Arts degree with a major in social work requires completion of 14 credits of a foreign language (Spanish is recommended; sign language as well as other foreign languages are accepted). The Bachelor of Arts in Social Work degree does not require a second language. Both degrees require 120 hours. Students who complete an associate degree program with a social services emphasis can complete either the B.A. or B.A./S.W. curriculum in social work by completing the required courses.

The Social Work Program at The University of Akron is fully accredited by the Council on Social Work Education.

Students wishing to major in social work must request an intercollege transfer to the College of Health and Human Sciences, School of Social Work and Family Sciences from their current college. A 2.75 grade point average and 30 credit hours is required for admission to the School. Once admitted to the School, a separate admissions packet must be completed with the School in order to be admitted as a social work major in good standing.

- Addiction Services, Basic, Certificate (p. 659)
- Addiction Services, Minor (p. 660)
- Social Work, BA (p. 660)
- Social Work, BAT (p. 663)

## Social Work (SOWK)

### SOWK:131 Introduction to Developmental Disabilities (2 Credits)

This course provides an overview of developmental disabilities. Content includes definitions, classifications, causes, and characteristics of disabilities; legislation/regulations; service delivery models; and prevention. (Formerly 2260:131)

### SOWK:150 Introduction to Gerontological Services (3 Credits)

Basic orientation to gerontology and role of community service technician in service delivery to aged. Topics include social, biological, economical, and psychological aspects of aging; national and state legislation; services and service provider. (Formerly 2260:150)

### SOWK:230 Human Relations (3 Credits)

Examination of principles and methods which aid in understanding the individual's response to society and the relationship between society and individuals. (Formerly 7750:230)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

### SOWK:231 Habilitation Programming (2 Credits)

Prerequisite: SOWK 131. This course examines components of individualized plans, implementation of such plans, and legal issues. Content includes types of habilitation programming and the role of self-determination. (Formerly 2260:231)



**SOWK:233 Behavior Support (2 Credits)**

Prerequisite: SOWK 131. This course examines the components of behavior support. Course content includes various types of behavior support programs and techniques. (Formerly 2260:233)

**SOWK:240 Substance Use and Abuse (3 Credits)**

Introduction to pharmacology of drugs of misuse; physiological factors of alcohol/drug-using behavior; effect of psychoactive drugs on the brain; intervention and treatment measures. (Formerly 7750:240)

**SOWK:244 Death & Dying (3 Credits)**

Examination of a wide range of topics related to death and dying. Emphasis is placed on understanding and coping with death and dying. (Formerly 7750:244)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**SOWK:255 Effective Workplace Relationships (3 Credits)**

This course focuses on self-evaluation and development of skills for successful interaction with clients/inmates, peers, supervisors, and colleagues in other public service systems. (Formerly 2260:255)

**SOWK:260 Introduction to Addiction (3 Credits)**

An overview of the continuum of use, abuse and dependency; theories of addiction; the impact of addiction on society; and the implications for professional practice. (Formerly 7750:260)

**SOWK:262 Basic Helping Skills (4 Credits)**

Teaches micro skills through the use of didactic presentation, role play and videotaping; develops ability to give and receive feedback about effectiveness of helping others. (Formerly 2260:262)

**SOWK:265 Women & Addiction (3 Credits)**

Exploration of the social, psychological, physical and family aspects of addiction in women. (Formerly 7750:265)

**SOWK:268 Co-Occurring Disorders (3 Credits)**

Key concepts and evidence-based practices in the provision of services to people suffering from substance abuse as well as mental illness and behavioral disorders. (Formerly 7750:268)

**SOWK:269 Criminal Justice & Addiction (3 Credits)**

An introduction to the problems that exist with the treatment of the alcohol/drug offenders and issues relating to their transition back to the community. (Formerly 7750:269)

**SOWK:270 Diversity and Social Work (3 Credits)**

Introductory course explores issues related to poverty and minority issues as they relate to at-risk populations. (Formerly 7750:270)

**Gen Ed:** - Domestic Diversity

**SOWK:271 Behavioral Addictions (3 Credits)**

Introduction to understanding human behavior and physiological responses to compulsive behaviors other than dependencies on psychoactive chemicals. Several behavioral addictions will be explored. (Formerly 7750:271)

**SOWK:275 Introduction to Social Work Practice (3 Credits)**

Introduces students to concepts, settings, and vulnerable populations related to the field of social work. Emphasis placed on purposes, values, ethics, knowledge, and skills that characterize the professional social worker. Provides an overview of theoretical and practical knowledge about the social work profession needed for entry levels of practice in social work. (Formerly 7750:275)

**SOWK:276 Introduction to Social Welfare (3 Credits)**

Survey of field of social welfare; place of social work profession within human services institutions of United States. Introduction of basic concepts relating social welfare institutions and social work to society. (Formerly 7750:276)

**SOWK:277 Case Management in Community Services (3 Credits)**

Case by case study of Social Service delivery in six primary areas of Human Services. Emphasis on case management skills, documentation and ethics. (Formerly 2260:277)

**SOWK:278 Techniques of Community Work (4 Credits)**

Prerequisite: ENGL 111. For those intending to work in community organizations in the United States and for others desiring an understanding of technical community service roles. Covers such topics as ethics, liability issues, communication and problem solving skills, values clarification, stress management systems theory, and assertive behavior. (Formerly 2260:278)

**SOWK:279 Technical Experience in Community & Social Services (5 Credits)**

Prerequisite: SOWK 278 and permission. Individual placement in selected community and social service agencies for educationally supervised experience in community and social services technician position. Does not substitute for SOWK 421 or 7750:495. (Formerly 2260:279)

**SOWK:286 Addiction Services Internship (2 Credits)**

Prerequisite: Permission of instructor. Integrates counselor assistant experience with fundamental concepts and skills from academic studies. Students are required to complete 200 hours of supervised field experience. (Formerly 7750:286)

**SOWK:297 Independent Study: Community Services (1-3 Credits)**

Prerequisite: Permission. Selected topics and special areas of study under the supervision and evaluation of a selected faculty member with whom specific arrangements have been made. (Formerly 2260:297)

**SOWK:300 The Resilient Child (3 Credits)**

Corequisite: SOWK 301. Course content includes typical and atypical development in children affected with health related issues in a variety of clinical settings. (Formerly 7750:300)

**SOWK:301 The Resilient Child Lab (1 Credit)**

Corequisite: SOWK 300. Course content applies typical and atypical development in children affected with health related issues in a lab setting. (Formerly 7750:301)

**SOWK:302 Assessment, Play and Therapeutic Interventions with Children (3 Credits)**

An overview of the theoretical framework of play and assessment of children's developmental and emotional needs. Therapeutic interventions and activities explored. (Formerly 7750:302)

**SOWK:303 National Health and Safety Performance Standards in Child Care (1 Credit)**

Course content includes safety and performance standards for health care providers working with children in a clinical setting. (Formerly 7750:303)

**SOWK:344 Death & Dying (3 Credits)**

Examination of a wide range of topics related to death and dying. Emphasis is placed on understanding and coping with death and dying. (Formerly 7750:344)

**Gen Ed:** - Social Science; - Domestic Diversity

**SOWK:345 Death and Dying for Health Care Professionals (3 Credits)**

Examination of loss, death, and dying in health care professions. Theory-driven course emphasizing development of practical skills to address death-related issues and experiences. (Formerly 7750:345)

**SOWK:349 Integrated Human Behavior and Health (3 Credits)**

Examination of the reciprocal nature of physical and mental health factors related to disease course/progression. Emphasis on application of theory-driven conceptualization and interventions. (Formerly 7750:349)

**SOWK:401 Social Work Practice I (3 Credits)**

Prerequisite: Social Work major. Corequisite: SOWK 405. Basic concepts and methods of Generalist social work practice, with an emphasis on understanding and working with individuals. (Formerly 7750:401)

**SOWK:402 Social Work Practice II (3 Credits)**

Prerequisite: SOWK 401 and SOWK 405 or permission of instructor. Concepts and methods of social work practice particularly relating to understanding and working with groups in various settings in our society. (Formerly 7750:402)

**SOWK:403 Social Work Practice III (3 Credits)**

Prerequisite: SOWK 401 and SOWK 405 or permission of instructor. Development of understanding and practice methods for utilization of community organization and social planning as social work process in assessing problems and developing program to meet needs. (Formerly 7750:403)

**SOWK:404 Social Work Practice IV (3 Credits)**

Prerequisite: SOWK 401 and SOWK 405. Professional social work practice with families in social services; the dynamics of family systems, assessment of family function and dysfunction, professional helping processes. (Formerly 7750:404)

**SOWK:405 Practice I Skills Lab (3 Credits)**

Prerequisites: SOWK 270, SOWK 276, SOWK 427, BIOL 103, POLIT 100, PSYC 100, SOCIO 100 and [ECON 100 or ECON 200]. Corequisite: SOWK 401. Prepares students for beginning generalist social work practice and proves a context to apply and evaluate generic knowledge base, values, ethics, and skills common to practice with client systems. (Formerly 7750:405)

**SOWK:411 Women's Issues in Social Work Practice (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Social work practice, knowledge and skill, social welfare institutions and social policy in relation to women's issues and concerns in the United States. (Formerly 7750:411)

**SOWK:421 Field Experience Seminar I (2 Credits)**

Prerequisites: SOWK 401 and permission of the instructor. Corequisite: SOWK 493. The first of two consecutive courses that assists students in making the transition from classroom learning to experiential learning in the field practicum. (Formerly 7750:421)

**SOWK:422 Field Experience Seminar II (2 Credits)**

Prerequisites: SOWK 421 and SOWK 493; Corequisite: SOWK 494. The second of two consecutive courses, this course assists students in integrating, synthesizing, and applying classroom learning to field experiences and assignments. (Formerly 7750:422)

**SOWK:425 Social Work Ethics (3 Credits)**

Prerequisite: Social Work major, permission of instructor. Social Worker's code of ethics as applied to practices, problems and issues in social work. (Formerly 7750:425)

**SOWK:427 Human Behavior & Social Environment I (3 Credits)**

Social work perspective on human development across the life cycle. Human diversity approach consistent with the needs of social work students preparing for practice. (Formerly 7750:427)

**SOWK:430 Human Behavior & Social Environment II (3 Credits)**

Prerequisites: Social Work major and SOWK 427. Examination of larger social systems including families, groups, neighborhoods, and organizations. Focuses on the unique systemic characteristics of each system and its development. (Formerly 7750:430)

**SOWK:442 Social Work Research (3 Credits)**

Prerequisite: Acceptance into the social work major. Overview of scientific inquiries in the research process as it applies to social work. Emphasis is placed on various social worker roles in relation to research. The focus will be on research concepts including contents on the evaluation of practice outcomes and data analyses. (Formerly 7750:442)

**SOWK:444 Global Health Disparities (3 Credits)**

Prerequisite: Admission to the College of Health and Human Sciences. This course provides a fundamental understanding of the purpose, function and importance of understanding global health disparities. The course examines the disparities in health condition and health care among minority populations for several specific diseases. The most significant current health care problems facing populations in the United States and the world will be identified. These conditions are significant health concerns in the majority population as well as minority population. It brings to light the behavioral and cultural characteristics of the global populations that contribute to the disproportionate presence of the disease in that population, and the disparity in treatment available. Furthermore, the course will introduce the students to view globally and act locally regarding to specific health problem of interest to the student or that demonstrate local needs, thus preparing students to potential paths of future program design. (Formerly 7750:444)

**SOWK:445 Social Policy Analysis for Social Workers (3 Credits)**

Prerequisite: Social Work major, permission of instructor. Description, analysis and construction of social policy in social services; to understanding forces and processes which establish or change social policies, to predict consequences of social policies and to establish goals for social policy development; integrated into effective social work methodology. (Formerly 7750:445)

**SOWK:450 Social Needs & Services: Aging (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Application of knowledge and principles of professional social work practice to understanding, development and provision of social services to meet needs of aging and later mature individuals, families and communities and institutions serving them and their relatives. (Formerly 7750:450)

**SOWK:451 Social Work in Child Welfare (3 Credits)**

Prerequisite: SOWK 401. In-depth exploration of structure and functioning of social services designed to help children, and of practice of social work in child-welfare settings. Consideration of supportive, supplementary and substitutive services. (Formerly 7750:451)

**SOWK:452 Social Work in Mental Health (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Issues, organization, development and methodologies of current professional social work practice in mental-health settings. (Formerly 7750:452)

**SOWK:454 Social Work in Juvenile Justice (3 Credits)**

Prerequisite: SOWK 401. The theory and practice of social work in the juvenile justice systems of the United States. Traditional procedures and recent developments, prevention, diversion and community outreach, legal concerns, case management, institutional functioning. (Formerly 7750:454)

**SOWK:455 Social Work Practice with African American Families (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Contemporary problems facing African American families; male-female relationships, single parent households, African American teens and elderly, public policy, theoretical models, explaining development of the African American family. (Formerly 7750:455)

**SOWK:456 Social Work in Health Services (3 Credits)**

Prerequisite: SOWK 401. Policies, programs and practice in health-care settings: short-term, intermediate and long-term hospitals, out-patient services, emergency services, clinics, visiting nurse services, nursing homes, pediatric services, self-help organizations. (Formerly 7750:456)

**SOWK:459 Social Work with People with Developmental Disabilities (3 Credits)**

Prerequisite: Permission of instructor. Application of social work principles in the provision of social services to meet the needs of the mentally retarded and developmentally disabled and their families. (Formerly 7750:459)

**SOWK:467 Addiction Screening, Assessment and Treatment Planning (3 Credits)**

Prerequisite: SOWK 260. Overview of screening, diagnosis and assessment procedures in the addiction field, including review of the most commonly used testing instruments. Implication for treatment planning is explored. (Formerly 7750:467)

**SOWK:468 Addiction Prevention, Treatment and Recovery (3 Credits)**

Evidence-based practices in addiction prevention, treatment, and recovery management. Treatment approaches include, but are not limited to, motivational interviewing, contingency management, cognitive behavioral therapy, and family approaches. (Formerly 7750:468)

**SOWK:469 Group and Relationship Counseling in Addictions (3 Credits)**

Models and dynamics of groups and families struggling with substance use disorders. Emphasis on strategies and techniques to improve functioning and interpersonal relationships in the maintenance of recovery. (Formerly 7750:469)

**SOWK:470 Law for Social Workers (3 Credits)**

Prerequisite: SOWK 401. Basic terminology, theories, principles, organization and procedures of law will be explored along with the relationships between social work and law and comparisons of the theoretical bases of the two professions. (Formerly 7750:470)

**SOWK:471 Crisis Intervention (3 Credits)**

This elective course focuses on knowledge/skills required by social workers dealing with people in crisis. Impact of crises on the human personality will be discussed. (Formerly 7750:471)

**SOWK:472 Child Welfare II (3 Credits)**

This course is the second in a series of two child welfare courses. Child Welfare II, addresses the developmental and permanence needs of children in the welfare system. (Formerly 7750:472)

**SOWK:473 Social Work with Adolescence (3 Credits)**

This course provides students with an in-depth knowledge of adolescent development and an understanding of how the biological, psychological, social, cultural, and spiritual aspects of an adolescent impact their overall functioning and quality of life issues. (Formerly 7750:473)

**SOWK:475 Addiction & Social Work Practice (3 Credits)**

Prerequisite: SOWK 401. Provides students with the essential knowledge and skill for successful social work practice with people involved in substance abuse. (Formerly 7750:475)

**SOWK:478 Family Financial Management (3 Credits)**

This course designed to help students gain an appreciation and working knowledge of the individual/family as a complex and ever-changing financial unit. We will look at the social and cultural practices that contribute to our view of money and financial management. We will also examine the American social class system and families' status, savings, financial security patterns of decision making and a range of financial practice behaviors, the profiles of families through the family development cycle. We will also explore how families prepare for the unforeseen, and work toward the resolution of family financial problems. Case studies, exercises, quizzes, and on-line discussions will aid us in this process. (Formerly 7750:478)

**SOWK:480 Special Topics: Social Work & Social Welfare (1-3 Credits)**

Prerequisite: Permission of instructor. Analysis of current social work and social welfare theory and policy, settings, innovative interventions, and trends in delivery systems in relation to selected areas of concern. Topics and credits variable. (Formerly 7750:480)

**SOWK:493 Field Experience: Social Agency I (3 Credits)**

Prerequisites: SOWK 401, SOWK 402, SOWK 427, and permission of instructor. Corequisite: SOWK 421. First of two consecutive courses of supervised internship in a social service setting. Facilitates acquisition of generalist practice skills. Student must receive permission to take the course with the Field Coordinator during early part of semester preceding enrollment. For senior social work majors. (Formerly 7750:493)

**SOWK:494 Field Experience: Social Agency II (3 Credits)**

Prerequisites: SOWK 493, SOWK 421 and permission of instructor; corequisite: SOWK 422. Second of two consecutive courses of supervised internship in a social service setting. Facilitates the continued acquisition of generalist practice skills. For senior social work majors only. (Formerly 7750:494)

**SOWK:497 Individual Investigation in Social Work (1-3 Credits)**

Prerequisites: Permission and prearrangement with instructor. Individual readings, research or projects in area of interest in social welfare theory or institutional operations or in social work practice under guidance of social work faculty member. Preparation of report paper appropriate to nature of topic. For social work major. (Formerly 7750:497)

**SOWK:499 Senior Honors Project in Social Work (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and approval of honors preceptor in department. Open only to social work major enrolled in Honors Program. Independent study leading to completion of senior honors thesis or other original work resulting in writing of research paper in proper scholarly form, supervised by student's honors project adviser within the department. (Formerly 7750:499)

## Addiction Services, Basic, Certificate Certificate in Addiction Services - Basic (226106C)

The Addiction Services (Basic) Certificate is best suited for students looking to work in the helping professions. This certificate is intended for individuals who wish to enhance their knowledge of addiction and addiction treatment.

**Program Contact**

John Ellis

jellis@uakron.edu

330-972-5275

The following information has official approval of **The School of Social Work and Family Sciences** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Addiction Services - Basic" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record.

## Summary

Code	Title	Hours
Required Courses		12
Total Hours		12

## Required Courses

Code	Title	Hours
SOWK:260	Introduction to Addiction	3
SOWK:240	Substance Use and Abuse	3
SOWK:467	Addiction Screening, Assessment and Treatment Planning	3
SOWK:468	Addiction Prevention, Treatment and Recovery	3
Total Hours		12

## Addiction Services, Minor

### Minor in Addiction Services (226105M)

The Addiction Services Minor is best suited for students looking to work in the helping professions. This minor is intended for individuals who wish to enhance their knowledge of addiction and addiction treatment.

#### Program Contact

John Ellis

Professor of Instruction, School of Social Work

330-972-5275

jellis@uakron.edu

The following information has official approval of **The School of Social Work and Family Sciences** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Addiction Services" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		15
Electives		3
Total Hours		18

## Required Courses

Code	Title	Hours
SOWK:240	Substance Use and Abuse	3
SOWK:260	Introduction to Addiction	3
SOWK:467	Addiction Screening, Assessment and Treatment Planning	3
SOWK:468	Addiction Prevention, Treatment and Recovery	3
SOWK:469	Group and Relationship Counseling in Addictions <sup>1</sup>	3
Total Hours		15

<sup>1</sup> SOWK:403 Social Work Practice III and SOWK:404 Social Work Practice IV can be used in place of SOWK:469

## Electives

Code	Title	Hours
<b>Complete 3 credits from the following courses:</b>		<b>3</b>
SOWK:265	Women & Addiction	
SOWK:268	Co-Occurring Disorders	
SOWK:269	Criminal Justice & Addiction	
SOWK:271	Behavioral Addictions	
Total Hours		3

## Social Work, BA

### Bachelor of Arts in Social Work (H75000BA)

More on the Social Work major (<https://www.uakron.edu/socialwork/>)

## Contact Information

The School of Social Work and Family Sciences, Polsky 411:

Janice Steinmetz

Pending Social Work Student Adviser

216-529-4404

jestein@uakron.edu (jestein@uakron.edu)

Dr. Timothy McCarragher

Director

330-972-5976

mccarra@uakron.edu

Brittany Smith

Administrative Assistant

330-972-5275

bsmith5@uakron.edu

**\*\*\*Students pursuing a Social Work Degree desiring licensure as an LSW should be aware that felony convictions may negatively affect eligibility**

for licensure. To inquire whether individual situations affect licensure, write to:

**Counselor, Social Worker & Marriage & Family Therapist Board**  
 50 West Broad Street, Suite 1075  
 Columbus, Ohio 43215-5919  
 phone (614)466-0912 or email  
 www.cswmft.ohio.gov/ (<http://www.cswmft.ohio.gov/>)\*

## Program Description

Consistent with the mission of The University of Akron and the College of Health and Human Sciences, the mission of the undergraduate social work program is to prepare students for competent and effective generalist practice. The goals of the undergraduate social work program are to: 1) prepare students to integrate the knowledge, values and skills of the social work profession for competent and effective generalist practice with diverse client systems in various practice settings; 2) prepare students to identify the strengths and abilities of diverse client systems to foster empowerment toward social justice and systematic well-being; and 3) prepare students to utilize theoretically-based social work research, knowledge and critical thinking skills for effective and ethical social work practice. The social work major is an accredited undergraduate professional program preparing students for entry-level practice positions in social service agencies employing Social Workers. Elective courses are available in such areas as health, child welfare, mental health, grant writing, family service, corrections, etc. Certificate programs in Pan-American Studies, Addiction Services, Gerontology (Aging), The Resilient Child, and Victim Studies can be scheduled within the elective framework of the curriculum.

The Bachelor of Arts degree with a major in social work requires completion of 14 credits of a foreign language (Spanish is recommended; sign language as well as other foreign languages are accepted). The Bachelor of Arts in Social Work degree does not require a second language. Both degrees require 120 hours. Students who complete an associate degree program with a social services emphasis can complete either the B.A. or B.A./S.W. curriculum in social work by completing the required courses.

Students wishing to major in social work must request an intercollege transfer to the School of Social Work and Family Sciences from their current college. A 2.75 grade point average and 30 credit hours is required for admission to the School. Once admitted to the School, a separate admissions packet must be completed with the School in order to be admitted as a social work major in good standing.

## Job Description

Job titles include caseworker, family worker, group worker, community organization worker, outreach worker, rehabilitation worker, probation worker, community health worker, counselor, child welfare worker, employment community service worker, fair housing coordinator, human relations worker, consumer services worker, etc. Job titles are varied but all relate to human needs in the area of social-emotional adjustment, development or protection, in the context of the individual, family, group, or community. Opportunities exist in the public and non-public sectors.

A Bachelor's degree is preparation for an entry-level position and for graduate study in Social Work. A student is encouraged to consider graduate level study to further his/her career opportunities. The University of Akron now offers a Master's degree program at four campuses (Akron, Wayne, Lakewood, and Stark). **The Master of Social**

**Work Program is fully accredited by the Council on Social Work Education.**

All Social Workers in the state of Ohio are licensed by the state.

## Salary Level

Depending on one's qualifications, experience, creativity and interests, there is a wide range of salaries possible at the entry-level, and upward mobility for the professional worker is fairly rapid. Entry-level salaries will range upward from \$20,000 to \$30,000 (BSW); \$40,000 to \$50,000 (MSW).

The following information has official approval of **The School of Social Work** and **The College of Health Professions**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
	General Education Requirements (p. 31)	34
	Social Work Core	40
	Foreign Language Requirement	14
	Electives	6
	Additional Credits for Graduation *	26
	<b>Total Hours</b>	<b>120</b>

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
STAT:250	Statistics for Everyday Life	
	or STAT:260 Basic Statistics	
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
BIOL:103	Natural Science: Biology	

*Social Sciences: 6 credit hours*

POLIT:100 Government &amp; Politics in the United States

PSYC:100 Introduction to Psychology  
or SOWK:23(Human Relations)

SOCIO:100 Introduction to Sociology

**Diversity**

Domestic Diversity

SOCIO:100 Introduction to Sociology

SOWK:270 Diversity and Social Work

Global Diversity

**Integrated and Applied Learning***Select one class from one of the following subcategories:*

Complex Issues Facing Society

Capstone

*Review the General Education Requirements page for detailed course listings.*

Total Hours 34

**Social Work Core**

Code	Title	Hours
SOWK:401	Social Work Practice I	3
SOWK:402	Social Work Practice II	3
SOWK:403	Social Work Practice III	3
SOWK:404	Social Work Practice IV	3
SOWK:405	Practice I Skills Lab	3
SOWK:421	Field Experience Seminar I	2
SOWK:422	Field Experience Seminar II	2
SOWK:425	Social Work Ethics	3
SOWK:430	Human Behavior & Social Environment II	3
SOWK:442	Social Work Research	3
SOWK:445	Social Policy Analysis for Social Workers	3
SOWK:452	Social Work in Mental Health	3
SOWK:493	Field Experience: Social Agency I	3
SOWK:494	Field Experience: Social Agency II	3
Total Hours		40

**Foreign Language Requirement**

Code	Title	Hours
<b>The Bachelor of Arts degree with a major in Social Work requires completion of two years of a language requirement; Spanish is recommended.<sup>1</sup></b>		<b>14</b>
Total Hours		14

<sup>1</sup> A student may also take the following sequence in Sign Language to meet the foreign language requirement:

- SPLA:101 ;
- SPLA:102 ;
- SPLA:201 ;
- SPLA:202 ;
- SPLA:222

**Electives**

Code	Title	Hours
<b>Complete six credit hours:</b>		<b>6</b>
SOWK:xxx	Social Work Electives	
Total Hours		6

**Recommended Sequence****1st Year**

Fall Semester	Hours
STAT:250 Statistics for Everyday Life <sup>1</sup> or STAT:260 or Basic Statistics	3-4
POLIT:100 Government & Politics in the United States <sup>1,3</sup>	3
SOCIO:100 Introduction to Sociology <sup>1,3</sup>	3
SOWK:275 Introduction to Social Work Practice <sup>1</sup> English Composition I Requirement <sup>2</sup>	3
Hours	15-16

**Spring Semester**

BIOL:103 Natural Science: Biology <sup>1,4</sup>	4
PSYC:100 Introduction to Psychology <sup>1,3</sup> or SOWK:230 or Human Relations	3
SOWK:270 Diversity and Social Work <sup>1</sup>	3
SOWK:276 Introduction to Social Welfare <sup>1</sup> English Composition II Requirement <sup>2</sup>	3
Hours	16

**2nd Year****Fall Semester**

SOWK:427 Human Behavior & Social Environment I <sup>1</sup>	3
Humanities Requirement	3
General Electives <sup>6</sup>	3
Speaking Requirement	3
Select one of the following:	3-4
Beginning Language I <sup>5</sup>	
SPLA:101	
Hours	15-16

**Spring Semester**

Natural Science Requirement <sup>4</sup>	3
Arts Requirement	3
Global Diversity Requirement	3
Complex Issues Requirement	3
Select one of the following:	3-4
Beginning Language II <sup>5</sup>	
SPLA:102	
Hours	15-16

**3rd Year****Fall Semester**

SOWK:401 Social Work Practice I	3
SOWK:405 Practice I Skills Lab	3
SOWK:442 Social Work Research	3
SOWK:xxx Social Work Elective	3
Select one of the following:	3
Intermediate Language I	

SPLA:201		
	Hours	15
<b>Spring Semester</b>		
SOWK:402	Social Work Practice II	3
SOWK:430	Human Behavior & Social Environment II	3
SOWK:445	Social Policy Analysis for Social Workers	3
SOWK:452	Social Work in Mental Health	3
Select one of the following:		3-5
	Intermediate Language II <sup>5</sup>	
SPLA:202 & SPLA:222	and	
	Hours	15-17
<b>4th Year</b>		
<b>Fall Semester</b>		
SOWK:403	Social Work Practice III	3
SOWK:421	Field Experience Seminar I	2
SOWK:425	Social Work Ethics	3
SOWK:493	Field Experience: Social Agency I	3
SOWK:4xx	Social Work Elective	3
	Hours	14
<b>Spring Semester</b>		
SOWK:404	Social Work Practice IV	3
SOWK:422	Field Experience Seminar II	2
SOWK:494	Field Experience: Social Agency II	3
	Arts or Humanities Requirement	3
	General Electives <sup>6</sup>	4
	Hours	15
	Total Hours	120-125

<sup>1</sup> Preadmission Requirements – must be completed prior to admission into the Social Work major.

<sup>2</sup> While not required for transfer to the School of Social Work and Family Sciences, the student must complete a General Education Mathematics, Statistics and Logic and English requirements *prior to full admission to the Social Work major*. Any General Education Mathematics, Statistics and Logic is accepted, but Statistics is recommended in preparation for Social Work Research I & II.

<sup>3</sup> SOCIO:100, POLIT:100, and PSYC:100 or SOWK:230, are requirements and will fulfill the Social Science requirement.

<sup>4</sup> Natural Science courses, including one human biology course, are required. This biology requirement can be met by completing BIOL:103; the remainder of the requirement may be met by several courses. Consult your adviser and appropriate General Education guide.

<sup>5</sup> The Bachelor of Arts degree with a major in Social Work requires completion of two years of a language requirement; Spanish is recommended. A student may also take the following sequence in Sign Language to meet the foreign language requirement:

- SPLA:101 ;
- SPLA:102 ;
- SPLA:201 ;
- SPLA:202 , (all sequential and 3 credits each); and
- SPLA:222 , 2 credits, no prerequisite.

<sup>6</sup> General Electives: These may be chosen from the following suggested disciplines: Anthropology (ANTH), Economics (ECON), History (HIST), Family & Consumer Sciences (FCSC), Political Science (POLIT), Psychology (PSYC), and Sociology (SOCIO) or foreign language/Sign Language coursework taken from the Bachelor of Arts with a major in Social Work degree.

A student may transfer to the School of Social Work as a *pending* major after completion of 30 credits and an overall GPA of at least a 2.75. Please note: **admission to the School of Social Work does not mean admission to the social work major.**

**Alert: By the end of your first 48 credit hours attempted, you should have completed your General Education English, Mathematics, and Oral Communication (Speech) requirements**

## Social Work, BAT

### Bachelor of Arts in Social Work (H75000BAT)

More on the Social Work major (<https://www.uakron.edu/socialwork/>)

## Contact Information

School of Social Work, Polsky 411:

Janice Steinmetz  
Pending Social Work Student Adviser  
216-529-4404  
[jestein@uakron.edu](mailto:jestein@uakron.edu) ([mdt@uakron.edu](mailto:mdt@uakron.edu))

Dr. Timothy McCarragher  
Director  
330-972-5976  
[mccarra@uakron.edu](mailto:mccarra@uakron.edu)

Brittany Smith  
Administrative Assistant  
330-972-5275  
[bsmith5@uakron.edu](mailto:bsmith5@uakron.edu) ([jcuddy@uakron.edu](mailto:jcuddy@uakron.edu))

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**Counselor, Social Worker & Marriage & Family Therapist Board**  
50 West Broad Street, Suite 1075  
Columbus, Ohio 43215-5919  
phone (614)466-0912 or email  
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*courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31)		34
Social Work Core		40
Electives		6
Additional Credits for Graduation *		40
Total Hours		120

\* Bachelor's degrees require a minimum of 120 credit hours for graduation.

## Recommended General Education Courses

Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.

Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.

Code	Title	Hours
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
STAT:250	Statistics for Everyday Life or STAT:260 Basic Statistics	
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
BIOL:103	Natural Science: Biology	
<i>Social Sciences: 6 credit hours</i>		
POLIT:100	Government & Politics in the United States	
PSYC:100	Introduction to Psychology or SOWK:23(Human Relations)	
SOCIO:100	Introduction to Sociology	
<b>Diversity</b>		
Domestic Diversity		
SOCIO:100	Introduction to Sociology	
SOWK:270	Diversity and Social Work	
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34



## Social Work Core

Code	Title	Hours
SOWK:401	Social Work Practice I	3
SOWK:402	Social Work Practice II	3
SOWK:403	Social Work Practice III	3
SOWK:404	Social Work Practice IV	3
SOWK:405	Practice I Skills Lab	3
SOWK:421	Field Experience Seminar I	2
SOWK:422	Field Experience Seminar II	2
SOWK:425	Social Work Ethics	3
SOWK:430	Human Behavior & Social Environment II	3
SOWK:442	Social Work Research	3
SOWK:445	Social Policy Analysis for Social Workers	3
SOWK:452	Social Work in Mental Health	3
SOWK:493	Field Experience: Social Agency I	3
SOWK:494	Field Experience: Social Agency II	3
Total Hours		40

## Electives

Code	Title	Hours
<b>Complete six credit hours:</b>		
SOWK:xxx	Social Work Electives	6
Total Hours		6

## Recommended Sequence

1st Year		
Fall Semester		Hours
STAT:250 or STAT:260	Statistics for Everyday Life <sup>1</sup> or Basic Statistics	3-4
POLIT:100	Government & Politics in the United States <sup>1,3</sup>	3
SOCIO:100	Introduction to Sociology <sup>1,3</sup>	3
SOWK:275	Introduction to Social Work Practice <sup>1</sup>	3
	English Composition I Requirement <sup>2</sup>	3
Hours		15-16
<b>Spring Semester</b>		
BIOL:103	Natural Science: Biology <sup>1,4</sup>	4
PSYC:100 or SOWK:230	Introduction to Psychology <sup>1,3</sup> or Human Relations	3
SOWK:270	Diversity and Social Work <sup>1</sup>	3
SOWK:276	Introduction to Social Welfare <sup>1</sup>	3
	English Composition II Requirement <sup>2</sup>	3
Hours		16
<b>2nd Year</b>		
Fall Semester		
SOWK:427	Human Behavior & Social Environment I <sup>1</sup>	3
	Humanities Requirement	3
	General Elective <sup>5</sup>	3
	Speaking Requirement	3
Hours		12
<b>Spring Semester</b>		
	Natural Science Requirement <sup>4</sup>	3

Arts Requirement	3
Global Diversity Requirement	3
Complex Issues Requirement	3
Hours	12

### 3rd Year

#### Fall Semester

SOWK:401	Social Work Practice I	3
SOWK:405	Practice I Skills Lab	3
SOWK:442	Social Work Research	3
SOWK:xxx	Social Work Elective	3
	General Electives <sup>5</sup>	5
Hours		17

#### Spring Semester

SOWK:402	Social Work Practice II	3
SOWK:430	Human Behavior & Social Environment II	3
SOWK:445	Social Policy Analysis for Social Workers	3
SOWK:452	Social Work in Mental Health	3
	General Electives <sup>5</sup>	5
Hours		17

### 4th Year

#### Fall Semester

SOWK:403	Social Work Practice III	3
SOWK:421	Field Experience Seminar I	2
SOWK:425	Social Work Ethics	3
SOWK:493	Field Experience: Social Agency I	3
SOWK:4xx	Social Work Elective	3
Hours		14

#### Spring Semester

SOWK:404	Social Work Practice IV	3
SOWK:422	Field Experience Seminar II	2
SOWK:494	Field Experience: Social Agency II	3
	Arts or Humanities Requirement	3
	General Electives <sup>5</sup>	6-5
Hours		17-16
Total Hours		120

<sup>1</sup> Preadmission Requirements – must be completed prior to admission into the Social Work major.

<sup>2</sup> While not required for transfer to the School of Social Work and Family Sciences, the student must complete a General Education Mathematics, Statistics and Logic and English requirements *prior to full admission to the Social Work major*. Any General Education Mathematics, Statistics and Logic is accepted, but Statistics is recommended in preparation for Social Work Research I & II.

<sup>3</sup> SOCIO:100, POLIT:100, and PSYC:100 or SOWK:230, are requirements and will fulfill the Social Science requirement.

<sup>4</sup> Natural Science courses, including one human biology course, are required. This biology requirement can be met by completing BIOL:103; the remainder of the requirement may be met by several courses. Consult your adviser and appropriate General Education guide.

<sup>5</sup> General Electives: These may be chosen from the following suggested disciplines: Anthropology (ANTH), Economics (ECON), History (HIST), Family & Consumer Sciences (FCSC), Political Science (POLIT), Psychology (PSYC), and Sociology (SOCIO) or foreign language/Sign Language coursework taken from the Bachelor of Arts with a major in Social Work degree.

A student may transfer to the School of Social Work as a *pending* major after completion of 30 credits and an overall GPA of at least a 2.75. Please note: **admission to the School of Social Work does not mean admission to the social work major.**

**Alert: By the end of your first 48 credit hours attempted, you should have completed your General Education English, Mathematics, and Oral Communication (Speech) requirements**

## Speech-Language Pathology and Audiology

### Speech-Language Pathology and Audiology

The program in Speech-Language Pathology of The University of Akron is accredited by the Council on Academic Accreditation of The American Speech-Language-Hearing Association. The Doctor of Audiology program at the University of Akron, in association with the Northeast Ohio Audiology Consortium, is also accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

The School of Speech-Language Pathology and Audiology offers an undergraduate (preprofessional) program of academic training in speech-language pathology and audiology. Audiologists are hearing care specialists for evaluation and treatment of individuals with hearing and balance disorders. Scope of practice includes conducting hearing assessments, selecting and fitting hearing aids/assistive listening devices, programming cochlear implants, testing balance, and counseling regarding hearing loss. Speech-language pathologists work with children and adults with language, voice, fluency, articulatory and phonologic, cognitive and swallowing disorders. They provide assessment and treatment for these disorders as well as working in prevention of them.

Course work focuses on the evaluation and treatment of the many disordered communication processes. Students will also take SLPA:446 Observation and Clinical Techniques. This course includes accumulation of a minimum of 25 hours of supervised observation, as required for graduate study by the American Speech-Language-Hearing Association. The pre-professional undergraduate program prepares students to pursue a master's degree, which is required for employment and licensure as a speech-language pathologist. A doctoral degree (Au.D.) is required for licensure as an audiologist.

Typical work settings for speech-language pathologists and audiologists include: schools, hospitals, clinics, private practice, physicians' offices, industry and universities.

- Manual Communication, Certificate (p. 668)
- Speech Language Pathology & Audiology, B.A. (p. 668)
- Speech Language Pathology & Audiology, B.A.T. (p. 671)

## SLPA: Speech-Language Pathology and Audiology

### SLPA:101 American Sign Language I (3 Credits)

Introduction to American Sign Language: vocabulary building, beginning development of fingerspelling skills, receptive/expressive conversational skills. (Formerly 7700:101)

### SLPA:102 American Sign Language II (3 Credits)

Prerequisite: SLPA 101 or equivalent. Continued development of skills in American Sign Language: vocabulary building, further development of fingerspelling skills, receptive/expressive conversational skills. (Formerly 7700:102)

### SLPA:110 Introduction to Disorders of Communications (3 Credits)

Overview of various types of speech disorders; their incidence, etiology and characteristics. Basic concepts and principles underlying speech pathology. (Formerly 7700:110)

### SLPA:201 American Sign Language III (3 Credits)

Prerequisite: SLPA 102 or equivalent. Continued development of skills in American Sign Language: vocabulary building, fingerspelling skills, receptive/expressive conversational skills, and linguistic features of ASL. (Formerly 7700:201)

### SLPA:202 American Sign Language IV (3 Credits)

Prerequisite: SLPA 201. Further fluency development of expressive/receptive communication, fingerspelling, and linguistic features of ASL. (Formerly 7700:202)

### SLPA:210 Introduction to Clinical Phonetics (4 Credits)

Introduction to International Phonetic Alphabet. Transcription of normal speech. Overview of articulatory and acoustic phonetics. Introduction to distinctive features. (Formerly 7700:210)

### SLPA:215 Introduction to Hearing and Speech Science (4 Credits)

Introductory course covering the human hearing system and acoustics of hearing as well as principles involved in the production, transmission, and reception of the speech signal. (Formerly 7700:215)

### SLPA:222 Survey of Deaf Culture in America (2 Credits)

The deaf experience in America including historical, educational, legal, social, and occupational developments. (Formerly 7700:222)

### SLPA:230 Language Science & Acquisition (4 Credits)

An introduction to language science and the study of the language acquisition process. The characteristics and explanations of language development will be presented. (Formerly 7700:230)

### SLPA:245 First Responders to the Deaf Community (4 Credits)

Prerequisites: Completion of SLPA 201 with C or better. This course is required for the HSHS Manual Communication Certificate. It will emphasize ASL skills practical to first responders' needs. (Formerly 7700:245)

### SLPA:295 Direct Experiences in the Hospital (3 Credits)

Prerequisite: Permission of advisor. Individual learning experiences for students with patients, their families and the hospital personnel in various hospital settings under the direction of hospital and University staff. (Formerly 7700:295)

### SLPA:321 Articulatory & Phonologic Disorders (4 Credits)

Prerequisites: SLPA 110, SLPA 210, and admission into the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Study of disorders of articulation/phonology, including normal phonological developments, and assessment and remediation of phonological disorders. (Formerly 7700:321)

**SLPA:330 Language Disorders (4 Credits)**

Prerequisites: SLPA 230 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Etiology, identification, evaluation, intervention, remediation of symbolic, cognitive, interpersonal language disorders of children. Disorders viewed as correlates or sequelae of central nervous system dysfunction or emotional disturbance. (Formerly 7700:330)

**SLPA:335 Principles of Audiology (4 Credits)**

Prerequisites: SLPA 215 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Introduction to basic audiometric tests, principles of speech audiometry, masking, and impedance audiometry, "test battery" approach. (Formerly 7700:335)

**SLPA:345 Audiologic Treatment (4 Credits)**

Prerequisites: SLPA 335 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Introduction to philosophy and methods of aural rehabilitation for children and adults. Includes methods of speech reading, auditory training, speech conservation, hearing aid use and combined visual and auditory approaches. (Formerly 7700:345)

**SLPA:365 Anatomy & Physiology of Speech & Hearing (3 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, BIOL 203 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Study of the anatomy and physiology of organs directly and indirectly responsible for production of speech and perception of acoustical signals. (Formerly 7700:365)

**SLPA:366 Anatomy & Physiology Laboratory (1 Credit)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203 or instructor permission, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Corequisite: SLPA 365. Laboratory to accompany lecture, includes hands-on experience with a variety of laboratory materials, primarily models and virtual dissection. (Formerly 7700:366)

**SLPA:401 Professional Practice and Communications in Child Life (1 Credit)**

Provide knowledge in the area of child life professional practice. Exploration of the tenets of the child life profession and identify essential professional concepts and attributes. (Formerly 7700:401)

**SLPA:403 Professional Practice and Communications in Child Life (3 Credits)**

Provide the knowledge of child life professional practice, standards of clinical practice, competencies and ethics. Skills related to therapeutic communication with patients, families and staff will be explored and practiced. (Formerly 7700:403)

**SLPA:422 Organic Disorders of Communication (4 Credits)**

Prerequisites: SLPA 230, SLPA 365, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Surveys communication disorders that accompany acquired neurological impairments and neurodevelopmental syndromes. Introduces neurological models, classification systems, diagnostic and treatment procedures. (Formerly 7700:422)

**SLPA:430 Aspects of Normal Language Development (3 Credits)**

(Not open to speech-language pathology and audiology majors) Introduction to acquisition and development of comprehension and production of language phonologically, semantically and syntactically. Relates language acquisition to perceptual development of child and looks at function of language in individual, family and school. (Formerly 7700:430)

**SLPA:445 Multicultural Considerations for Audiologists & Speech-Language Pathologists (3 Credits)**

Prerequisites: SLPA 210, SLPA 321, SLPA 330, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language and Audiology. This course introduces the multicultural considerations faced by audiologists and speech-language pathologists providing services to families and individuals with communication disorders. (Formerly 7700:445)

**SLPA:446 Observation and Clinical Techniques (4 Credits)**

Prerequisites: SLPA 110, SLPA 210, SLPA 215, SLPA 230, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Introduction to concepts and processes of clinical practice in speech-language pathology and audiology. Includes clinical observation and case study. (Formerly 7700:446)

**SLPA:452 Child, Illness and Loss (3 Credits)**

Prerequisite: Senior standing. This course examines the phenomena of illness, loss and bereavement in modern society with a special emphasis on children and families. (Formerly 7700:452)

**SLPA:453 Facilitating Support Groups (3 Credits)**

Prerequisite: Senior standing. Theories, strategies and skills needed to facilitate support groups for children and for adults are studied using a variety of approaches including participation in a support group. (Formerly 7700:453)

**SLPA:454 Child in the Hospital (6 Credits)**

Prerequisite: CHFD 265, comparable course or permission of instructor. Seminar dealing with special needs and problems of hospitalized/ill child and family. Literature related to effects, separation, illness and stress. Examination of strategies for coping. (Formerly 7700:454)

**SLPA:455 Practicum Experience in Child-Life Program (3 Credits)**

Prerequisite: SLPA 454. Field experience in a child-life program and classroom activities including critical analysis of a currently functioning program and program administration. (Formerly 7700:455)

**SLPA:480 Seminar in Speech-Language Pathology and/or Audiology (2 Credits)**

Prerequisite: Senior standing. Provides a vehicle for detailed study and discussion of various communicative disorders. (Formerly 7700:480)

**SLPA:481 Special Projects: Speech-Language Pathology & Audiology (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission of instructor. Individual or group projects related to any of the problems of communicative disorders. (Formerly 7700:481)

**SLPA:484 Hospital Settings, Children and Families (5 Credits)**

Prerequisite: CHFD 265, comparable course or permission of instructor. Focuses on hospital as a major social institution; introduces procedures and functions of the hospital; roles played by various hospital personnel plus cursory knowledge of medical terminology, common childhood diseases, illnesses and injuries. (Formerly 7700:484)

**SLPA:485 Teaching & Learning Strategies in Speech-Language Pathology (2 Credits)**

Current practice related to clinical intervention designed for individuals with developmental disabilities. Explores the use of the natural environment and the computer as intervention tools. (Formerly 7700:485)

**SLPA:494 Internship: Guided Experiences in Child Life Program (8 Credits)**

Prerequisite: SLPA 455. Field experience in a child-life program at an approved pediatric facility under the supervision of Child Life Specialists. (Formerly 7700:494)

**SLPA:496 Senior Honors Project: Speech-Language Pathology & Audiology (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: enrollment in the Honors Program, senior standing and major in speech-language pathology and audiology. (Formerly 7700:496)

## Manual Communication, Certificate

### Certificate in Manual Communication (H70007C)

**Program Contact**

Lori Palmer

School of Speech-language Pathology and Audiology  
330-972-8187

The following information has official approval of **The School of Speech-Language Pathology & Audiology** and **The College of Health and Human Sciences**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Manual Communication" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record. This Certificate is open to undergraduate majors in any discipline as well as persons with a baccalaureate degree from the University or any other accredited institution. This certificate may also be earned independent of earning a degree.

**Summary**

Code	Title	Hours
Required Courses		18
Total Hours		18

**Required Courses**

Code	Title	Hours
SLPA:101	American Sign Language I	3
SLPA:102	American Sign Language II	3
SLPA:201	American Sign Language III	3
SLPA:202	American Sign Language IV	3
SLPA:222	Survey of Deaf Culture in America	2
SLPA:245	First Responders to the Deaf Community	4
Total Hours		18

## Speech Language Pathology & Audiology, B.A.

### Bachelor of Arts in Speech Language Pathology & Audiology (H70101BA)

The School of Speech-Language Pathology and Audiology offers an undergraduate and graduate program of academic and clinical training in speech-language pathology and audiology. The undergraduate curriculum in Speech-Language Pathology and Audiology focuses on the fundamental components of the discipline, including normal

communication development and processes, understanding of speech and hearing sciences, and an introduction to evaluation and treatment of hearing, speech, language and communication differences and disorders. Completion of the undergraduate degree prepares students for entry into either graduate study in speech-language pathology or audiology.

**Contact Information**

School of Speech-Language Pathology and Audiology  
Polsky Building 181  
(330) 972-6803  
<http://www.uakron.edu/sslpa/>

**Students are encouraged to contact:**

Mrs. Jenna Day  
Undergraduate Coordinator  
School of Speech-Language Pathology and Audiology  
E-mail: [jday@uakron.edu](mailto:jday@uakron.edu)

Current University of Akron students may schedule an advising appointment with the College of Health and Human Sciences by visiting the online advising scheduling system here. (<https://nam03.safelinks.protection.outlook.com?url=https%3A%2F%2Fbooknow.appointment-plus.com%2Fy6zr0zgx%2F&data=02%7C01%7Csjj%40uakron.edu%7C39b827e860054854f8cf08d84525fc10%7Ce8575dedd7f94ecea4aa0b32991aee%7C0%7C0%7C637335376742975487&sdata=Wuqc%2BJ5ho0kqTYvnX1GSX%2BkIZ%2ByUeb%2FFRXTxtfcEhIk%3D&reserved=0>)

**Speech Language Pathologist**

- Speech-language pathologists specialize in communication and swallowing disabilities of all types and work with people from infants through the elderly.
- Speech-language pathologists diagnose and treat individuals with speech or language, swallowing, fluency, deafness and hearing loss, voice, and cognitive-communication disabilities due to brain injury or stroke.
- Speech-language pathologists also prescribe assistive technology for speaking, reading, and writing.
- The undergraduate curriculum provides a broad background in normal speech, hearing, and language development, and an introduction to the specific communication disorders and their management.
- With an undergraduate degree, some students enter sales or case management in various health-related businesses.

**Students must earn a Masters Degree to become a speech-language pathologist; the program takes two years to complete.**

Graduate students take classes and participate in clinical preparation which includes a supervised clinic on campus as well as community-based externships in settings such as hospitals, nursing homes, schools, rehabilitation facilities, clinics and private practice. The University of Akron also offers a Masters Degree in Speech-Language Pathology. For more information, go to <https://www.uakron.edu/sslpa/gslpp/>.

**Job Outlook**

Upon obtaining certification from the American Speech-Language and Hearing Association and a license from the State of Ohio Board of Speech-Language Pathology and Audiology, jobs are available in many

settings. Employment settings include hospitals, rehabilitation facilities, nursing homes, home health agencies, early intervention programs, schools, clinics and private practices. Speech-language pathology is listed among the fastest growing occupations by the United States Department of Labor. The average starting salary for a Speech-Language Pathologist is \$66,682. For more information, go to [www.asha.org/public/speech](http://www.asha.org/public/speech) (<http://www.asha.org/public/speech/>).

## Audiologist

- Audiologists are hearing care specialists who evaluate and treat individuals with hearing and balance disorders.
- Audiologists are to hearing as Optometrists are to vision.
- Audiologists diagnose hearing and balance disorders in infants, children and adults, and provide treatment including fitting hearing aids, dispensing assistive listening devices, mapping cochlear implants, and providing audiologic rehabilitation for children and adults.
- Audiologists work in a variety of health care settings such as private practices, hospitals, rehabilitation centers, schools, and physician's offices.

### To practice, Audiologists must earn a Doctor of Audiology degree.

The Doctor of Audiology degree is a 4 year post baccalaureate program that is offered through The University of Akron in conjunction with Kent State University and the Cleveland Clinic Foundation.

Graduate students take classes as well as participate in supervised clinical experiences, which take place in the campus clinic and in a wide variety of external sites.

## Job Outlook

Audiology is listed among the fastest growing occupations by the United States Department of Labor. Average starting salaries for audiologists is around \$80,000. For more information go to [www.asha.org/public/hearing/gen\\_audiology.htm](http://www.asha.org/public/hearing/gen_audiology.htm) ([http://www.asha.org/public/hearing/gen\\_audiology.htm](http://www.asha.org/public/hearing/gen_audiology.htm)) or [www.audiology.org](http://www.audiology.org) (<http://www.audiology.org>).

## Requirements for Admission

The Bachelor of Arts (BA) requires 50 credits of general education requirements and other required courses, including the American Speech-Language Hearing Association Standards<sup>1</sup>. The major also requires 46 credits of core coursework in speech-language pathology and audiology, and 24 credits of electives and extra courses for BA degree completion. The Bachelor of Arts (BA) requires two years of a modern language. A student may take courses from the Department of Modern Languages or the following American Sign Language (ASL) courses: SLPA:101 American Sign Language I, SLPA:102 American Sign Language II, SLPA:201 American Sign Language III, SLPA:202 American Sign Language IV, and SLPA:222 Survey of Deaf Culture in America. The major also offers a Bachelor of Arts Tagged (BAT) option without a modern language requirement.

<sup>1</sup> Coursework in human anatomy and physiology, physics or chemistry, psychology or sociology, and statistics are required to fulfill American Speech-Language-Hearing Association standards.

A minimum of 30 credits **and** completion of the following courses with a 3.0 GPA is required to be admitted into the Speech-Language Pathology and Audiology Program.

## Pre-Admission Required Courses

Code	Title	Hours
STAT:250 or STAT:260	Statistics for Everyday Life Basic Statistics	3-4
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
PSYC:100	Introduction to Psychology	3
SLPA:110	Introduction to Disorders of Communications	3
Total Hours		17-18

The following information has official approval of **The School of Speech Language Pathology and Audiology** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. It is highly recommended that all students meet with the SSLPA academic advisor once admitted into the program.

Below is an example sequence of courses including The University of Akron General Education Requirements as of January 1, 2020, School of Speech-Language Pathology and Audiology Degree requirements as of January 1, 2019, and ASHA-CCC Standards as of January 1, 2020.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Requirements Summary

Code	Title	Hours
General Education Requirements (p. 31) *		15
Core Courses		46
Modern Language Requirement		14
Other Required Courses		45
Total Hours		120

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		34

## Core Courses

Code	Title	Hours
SLPA:110	Introduction to Disorders of Communications	3
SLPA:210	Introduction to Clinical Phonetics	4
SLPA:215	Introduction to Hearing and Speech Science	4
SLPA:230	Language Science & Acquisition	4
SLPA:321	Articulatory & Phonologic Disorders	4
SLPA:330	Language Disorders	4
SLPA:335	Principles of Audiology	4
SLPA:345	Audiologic Treatment	4
SLPA:365	Anatomy & Physiology of Speech & Hearing	3
SLPA:366	Anatomy & Physiology Laboratory	1
SLPA:422	Organic Disorders of Communication	4
SLPA:445	Multicultural Considerations for Audiologists & Speech-Language Pathologists	3
SLPA:446	Observation and Clinical Techniques	4
Total Hours		46

## Modern Language Requirement

Code	Title	Hours
<b>The Bachelor of Arts degree requires two years of a Modern Language; ASL is recommended.</b> <sup>1</sup>		<b>14</b>
Total Hours		14

<sup>1</sup> It is recommended for a student to take the following sequence in American Sign Language (ASL) to meet the modern language requirement:

- SLPA:101 American Sign Language I
- SLPA:102 American Sign Language II
- SLPA:201 American Sign Language III
- SLPA:202 American Sign Language IV
- SLPA:222 Survey of Deaf Culture in America

## Other Required Courses

Code	Title	Hours
STAT:250	Statistics for Everyday Life	3-4
or STAT:260	Basic Statistics	
COMM:106	Effective Oral Communication	3
or COMM:105	Introduction to Public Speaking	
ENGL:111	English Composition I	3
ENGL:222	Technical Report Writing	3
PHIL:150	Critical Thinking	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
PHYS:133	Music, Sound & Physics	4
or CHEM:101	Chemistry for Everyone	
PSYC:100	Introduction to Psychology	3
PSYC:230	Developmental Psychology	4
<b>Electives</b>		<b>10</b>
Total Hours		44-45

## Recommended Sequence

<b>1st Year</b>		
<b>Fall Semester</b>		<b>Hours</b>
BIOL:200	Human Anatomy & Physiology I <sup>2</sup>	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>2</sup>	1
ENGL:111	English Composition I	3
PSYC:100	Introduction to Psychology <sup>2</sup>	3
COMM:105	Introduction to Public Speaking	3
or COMM:106	or Effective Oral Communication	
SLPA:110	Introduction to Disorders of Communications <sup>2</sup>	3
Hours		16
<b>Spring Semester</b>		
BIOL:202	Human Anatomy & Physiology II <sup>2</sup>	3
BIOL:203	Human Anatomy & Physiology Laboratory II <sup>2</sup>	1
STAT:250	Statistics for Everyday Life <sup>2</sup>	3-4
or STAT:260	or Basic Statistics	
PSYC:230	Developmental Psychology	4
Social Science Requirement		3
Hours		14-15

**2nd Year****Fall Semester**

ENGL:222	Technical Report Writing	3
SLPA:210	Introduction to Clinical Phonetics	4
SLPA:230	Language Science & Acquisition	4
Select one of the following: <sup>1</sup>		3-4
SLPA:101	American Sign Language I Beginning Language I	
	Hours	14-15

**Spring Semester**

SLPA:215	Introduction to Hearing and Speech Science	4
SLPA:321	Articulatory & Phonologic Disorders	4
SLPA:330	Language Disorders	4
Select one of the following: <sup>1</sup>		4-3
SLPA:102	American Sign Language II Beginning Language II	
	Hours	16-15

**3rd Year****Fall Semester**

SLPA:335	Principles of Audiology	4
SLPA:365	Anatomy & Physiology of Speech & Hearing	3
SLPA:366	Anatomy & Physiology Laboratory	1
	Arts Requirement	3
Select one of the following: <sup>1</sup>		3
SLPA:201	American Sign Language III Intermediate Language I	
	Hours	14

**Spring Semester**

CHEM:101 or PHYS:133	Chemistry for Everyone or Music, Sound & Physics	4
SLPA:345	Audiologic Treatment	4
	Complex Issues Requirement	3
Select one of the following: <sup>1</sup>		3-5
SLPA:202 & SLPA:222	American Sign Language IV and Survey of Deaf Culture in America Intermediate Language II	
	Hours	14-16

**4th Year****Fall Semester**

SLPA:446	Observation and Clinical Techniques	4
PHIL:150	Critical Thinking	3
	Humanities Requirement	3
	Electives	5
	Hours	15

**Spring Semester**

SLPA:422	Organic Disorders of Communication	4
SLPA:445	Multicultural Considerations for Audiologists & Speech-Language Pathologists	3
	Global Diversity Requirement	3

Electives

5

Hours

15

Total Hours

118-121

<sup>1</sup> The Bachelor of Arts degree with a major in Speech-Language Pathology and Audiology requires completion of two years of a modern language requirement. The following sequence in American Sign Language (ASL) is recommended:

- SLPA:101 American Sign Language I
- SLPA:102 American Sign Language II
- SLPA:201 American Sign Language III
- SLPA:201 American Sign Language III
- SLPA:222 Survey of Deaf Culture in America

<sup>2</sup> Preadmission Requirements – must be completed with a 3.0 GPA prior to admission into the Speech-Language Pathology and Audiology major.

Alert: By the end of your first 48 credit hours attempted, you should have completed your General Education English, Mathematics, Statistics, and Logic, and Oral Communication (Speech) requirements. You should have also declared a major and transferred to (been accepted by) a degree granting college at The University of Akron.

## Speech Language Pathology & Audiology, B.A.T.

### Bachelor of Arts in Speech Language Pathology & Audiology (H70101BAT)

The School of Speech-Language Pathology and Audiology offers an undergraduate and graduate program of academic and clinical training in speech-language pathology and audiology. The undergraduate curriculum in Speech-Language Pathology and Audiology focuses on the fundamental components of the discipline, including normal communication development and processes, understanding of speech and hearing sciences, and an introduction to evaluation and treatment of hearing, speech, language and communication differences and disorders. Completion of the undergraduate degree prepares students for entry into either graduate study in speech-language pathology or audiology.

## Contact Information

School of Speech-Language Pathology and Audiology  
Polsky Building 181  
(330) 972-6803  
<http://www.uakron.edu/sslpa/>

### Students are encouraged to contact:

Mrs. Jenna Day  
Undergraduate Coordinator  
School of Speech-Language Pathology and Audiology  
E-mail: [jday@uakron.edu](mailto:jday@uakron.edu)

Current University of Akron students may schedule an advising appointment with the College of Health and Human Sciences by visiting the online advising scheduling system here. (<https://nam03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fbooknow.appointment-plus.com%2Fy6zr0zgx%2F&data=02%7C01%7Csjj%40uakron.edu>)

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%2BJ5ho0kqTYvnX1GSX%2BkiZ%2ByUeb%2FFRXTxtfcEhIk  
%3D&reserved=0)

## Speech Language Pathologist

- Speech-language pathologists specialize in communication and swallowing disabilities of all types and work with people from infants through the elderly.
- Speech-language pathologists diagnose and treat individuals with speech or language, swallowing, fluency, deafness and hearing loss, voice, and cognitive-communication disabilities due to brain injury or stroke.
- Speech-language pathologists also prescribe assistive technology for speaking, reading, and writing.
- The undergraduate curriculum provides a broad background in normal speech, hearing, and language development, and an introduction to the specific communication disorders and their management.
- With an undergraduate degree, some students enter sales or case management in various health-related businesses.

**Students must earn a Masters Degree to become a speech-language pathologist; the program takes two years to complete.**

Graduate students take classes and participate in clinical preparation which includes a supervised clinic on campus as well as community-based externships in settings such as hospitals, nursing homes, schools, rehabilitation facilities, clinics and private practice. The University of Akron also offers a Masters Degree in Speech-Language Pathology. For more information, go to <https://www.uakron.edu/sslpa/gslpp/>.

### Job Outlook

Upon obtaining certification from the American Speech-Language and Hearing Association and a license from the State of Ohio Board of Speech-Language Pathology and Audiology, jobs are available in many settings. Employment settings include hospitals, rehabilitation facilities, nursing homes, home health agencies, early intervention programs, schools, clinics and private practices. Speech-language pathology is listed among the fastest growing occupations by the United States Department of Labor. The average starting salary for a Speech-Language Pathologist is \$66,682. For more information, go to [www.asha.org/public/speech](http://www.asha.org/public/speech) (<http://www.asha.org/public/speech/>). For more information, go to [www.asha.org/public/speech](http://www.asha.org/public/speech) (<http://www.asha.org/public/speech/>).

## Audiologist

- Audiologists are hearing care specialists who evaluate and treat individuals with hearing and balance disorders.
- Audiologists are to hearing as Optometrists are to vision.
- Audiologists diagnose hearing and balance disorders in infants, children and adults, and provide treatment including fitting hearing aids, dispensing assistive listening devices, mapping cochlear implants, and providing audiologic rehabilitation for children and adults.
- Audiologists work in a variety of health care settings such as private practices, hospitals, rehabilitation centers, schools, and physician's offices.

**To practice, Audiologists must earn a Doctor of Audiology degree.**

The Doctor of Audiology degree is a 4 year post baccalaureate program that is offered through The University of Akron in conjunction with Kent State University and the Cleveland Clinic Foundation.

Graduate students take classes as well as participate in supervised clinical experiences, which take place in the campus clinic and in a wide variety of external sites.

### Job Outlook

Audiology is listed among the fastest growing occupations by the United States Department of Labor. Average starting salaries for audiologists is around \$80,000. For more information go to [www.asha.org/public/hearing/gen\\_audiology.htm](http://www.asha.org/public/hearing/gen_audiology.htm) ([http://www.asha.org/public/hearing/gen\\_audiology.htm](http://www.asha.org/public/hearing/gen_audiology.htm)) or [www.audiology.org](http://www.audiology.org) (<http://www.audiology.org>).

## Requirements for Admission

**The Bachelor of Arts in Speech-Language Pathology & Audiology (BAT)** requires 50 credits of general education requirements and other required courses, including the American Speech-Language Hearing Association Standards<sup>1</sup>. The major also requires 46 credits of core coursework in speech-language pathology and audiology, 11 credits of electives and 13 extra courses for BAT degree completion. The BAT option does not require two years of a modern language. Instead, the student completes 13 credits of additional coursework. Recommended areas include: Nutrition/Dietetics, Nursing, Social Work, Applied Science and Technology, Psychology, or Sociology.

<sup>1</sup> Coursework in human anatomy and physiology, physics or chemistry, psychology or sociology, and statistics are required to fulfill American Speech-Language-Hearing Association standards.

A minimum of 30 credits **and** completion of the following courses with a 3.0 GPA is required to be admitted into the Speech-Language Pathology and Audiology Program.

## Pre-Admission Required Courses

Code	Title	Hours
STAT:250	Statistics for Everyday Life	3-4
or STAT:260	Basic Statistics	
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
PSYC:100	Introduction to Psychology	3
SLPA:110	Introduction to Disorders of Communications	3
Total Hours		17-18

The following information has official approval of **The School of Speech Language Pathology and Audiology** and **The College of Health and Human Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor. It is highly recommended that all students



need to meet with the SSLPA academic advisor once admitted into the program.

Below is an example sequence of courses including The University of Akron General Education Requirements as of January 1, 2020, School of Speech-Language Pathology and Audiology Degree requirements as of January 1, 2019, and ASHA-CCC Standards as of January 1, 2020.

**Three year accelerated option:** for first time students who have earned credits for at least the first year of courses. Credits can be earned through qualifying scores on appropriate Advanced Placement (AP) exams or through College Credit Plus Program (CCP) courses. Credits for qualifying AP scores or CCP courses are determined by the appropriate academic department. Departments may assign varied course credit, depending on the student's score on an AP exam or grade in a CCP course. Students may also receive credit by examination or via placement tests, where appropriate.

## Summary

Code	Title	Hours
	General Education Requirements (p. 31) *	15
	Core Courses	46
	Tagged Degree Requirements	13
	Other Required Courses	46
	<b>Total Hours</b>	<b>120</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

## General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
<b>Total Hours</b>		<b>34</b>

## Core Courses

Code	Title	Hours
SLPA:110	Introduction to Disorders of Communications	3
SLPA:210	Introduction to Clinical Phonetics	4
SLPA:215	Introduction to Hearing and Speech Science	4
SLPA:230	Language Science & Acquisition	4
SLPA:321	Articulatory & Phonologic Disorders	4
SLPA:330	Language Disorders	4
SLPA:335	Principles of Audiology	4
SLPA:345	Audiologic Treatment	4
SLPA:365	Anatomy & Physiology of Speech & Hearing	3
SLPA:366	Anatomy & Physiology Laboratory	1
SLPA:422	Organic Disorders of Communication	4
SLPA:445	Multicultural Considerations for Audiologists & Speech-Language Pathologists	3
SLPA:446	Observation and Clinical Techniques	4
<b>Total Hours</b>		<b>46</b>

## Tagged Degree Requirements

Code	Title	Hours
ENGL:222	Technical Report Writing	3
PHIL:150	Critical Thinking	3
PSYC:230	Developmental Psychology	4
SLPA:101	American Sign Language I	3
<b>Total Hours</b>		<b>13</b>

## Other Required Courses

Code	Title	Hours
STAT:250	Statistics for Everyday Life	3-4
or STAT:260	Basic Statistics	
COMM:106	Effective Oral Communication	3
or COMM:105	Introduction to Public Speaking	
ENGL:111	English Composition I	3
ENGL:222	Technical Report Writing	3
PHIL:150	Critical Thinking	3
BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
BIOL:202	Human Anatomy & Physiology II	3
BIOL:203	Human Anatomy & Physiology Laboratory II	1
PHYS:133	Music, Sound & Physics	4
or CHEM:101	Chemistry for Everyone	
PSYC:100	Introduction to Psychology	3
PSYC:230	Developmental Psychology	4
<b>Electives</b>		<b>10</b>
<b>Total Hours</b>		<b>44-45</b>

## Recommended Sequence

### 1st Year

Fall Semester		Hours
BIOL:200	Human Anatomy & Physiology I <sup>1</sup>	3
BIOL:201	Human Anatomy & Physiology Laboratory I <sup>1</sup>	1
ENGL:111	English Composition I	3
PSYC:100	Introduction to Psychology <sup>1</sup>	3
COMM:105 or COMM:106	Introduction to Public Speaking or Effective Oral Communication	3
SLPA:110	Introduction to Disorders of Communications <sup>1</sup>	3
Hours		16

### Spring Semester

BIOL:202	Human Anatomy & Physiology II <sup>1</sup>	3
BIOL:203	Human Anatomy & Physiology Laboratory II <sup>1</sup>	1
STAT:250	Statistics for Everyday Life <sup>1</sup>	4
PSYC:230	Developmental Psychology	4
	Social Science Requirement	3
Hours		15

### 2nd Year

#### Fall Semester

ENGL:222	Technical Report Writing <sup>1</sup>	3
SLPA:101	American Sign Language I	3
SLPA:210	Introduction to Clinical Phonetics	4
SLPA:230	Language Science & Acquisition	4
	Electives	2
Hours		16

#### Spring Semester

PHIL:150	Critical Thinking	3
SLPA:215	Introduction to Hearing and Speech Science	4
SLPA:321	Articulatory & Phonologic Disorders	4
SLPA:330	Language Disorders	4
Hours		15

### 3rd Year

#### Fall Semester

SLPA:335	Principles of Audiology	4
SLPA:365	Anatomy & Physiology of Speech & Hearing	3
SLPA:366	Anatomy & Physiology Laboratory	1
	Arts Requirement	3
	Complex Issues Requirement	3
Hours		14

#### Spring Semester

CHEM:101 or PHYS:133	Chemistry for Everyone or Music, Sound & Physics	4
SLPA:345	Audiologic Treatment	4
SLPA:445	Multicultural Considerations for Audiologists & Speech-Language Pathologists	3
	Global Diversity Requirement	3

Electives	2
Hours	16

### 4th Year

#### Fall Semester

SLPA:446	Observation and Clinical Techniques	4
	Electives	9
Hours		13

#### Spring Semester

SLPA:422	Organic Disorders of Communication	4
	Humanities Requirement	3
	Electives	8
Hours		15
Total Hours		120

<sup>1</sup> Preadmission Requirements – must be completed with a 3.0 GPA prior to admission into the Speech-Language Pathology and Audiology major.

Alert: By the end of your first 48 credit hours attempted, you should have completed your General Education English, Mathematics, Statistics, and Logic, and Oral Communication (Speech) requirements. You should have also declared a major and transferred to (been accepted by) a degree granting college at The University of Akron.

## Williams Honors College Selective Admission

Students who have been accepted to The University of Akron, who are pursuing a bachelor's program as a full-time student, and who meet the Williams Honors College criteria may apply separately for admission to the Williams Honors College. A student may be admitted to the Williams Honors College upon graduation from high school, upon transfer from another college or university, or as a continuing student at The University of Akron.

The selective admission is based on a holistic review of each applicant's file. Submission of standardized test scores (ACT or SAT) is optional. Each applicant must file an application to the Williams Honors College in addition to applying to the University of Akron and must be pursuing a bachelor's program.

First consideration will be given to students with the following academic credentials:

- 3.50 GPA on a 4.00 scale
- 27 ACT composite or 1280 SAT (total)

Other applicants, whether transfer students or continuing undergraduates, must satisfy the following:

- Grade-point average of 3.6 or above
- Completed fewer than 64 credits of college coursework

## Honors Curriculum Academic Majors

A Williams Honors College student completes the requirements for a major in one of the colleges awarding bachelor's degrees and enrolls in

select honors classes. The Honors Research Project counts as advanced coursework.

## Honors Distribution

In place of The University of Akron General Education requirements, a Williams Honors College student completes an individually selected set of courses to meet the Honors Distribution. The Honors Distribution consists of the following four group requirements totaling at least 25 credits:

### Group I (The Humanities)

Six or more credits in courses offered by these departments:

- WMST: Women's Studies
- PAFS: Pan-African Studies
- CLAS: Classical Studies
- ANTH: Anthropology (depending on the course)
- HIST: World Civilizations
- HIST: Humanities in the Western Tradition
- HIST: History
- PHIL: Philosophy

### Group II (Languages and the Arts)

Six credits of English Composition (Honors) and/or other English; and three or more credits from the other departments listed below:

- ENGL:222 Technical Report Writing (with certain restrictions)
- ENGL: English
- ARAB: Arabic
- CHIN: Chinese
- JAPN: Japanese
- FREN: French
- GERM: German
- ITAL: Italian
- RUSS: Russian
- SPAN: Spanish
- ART: Art
- MUSIC: Music
- MUSAP: Applied Music Lessons
- COMM: Communication
- SLPA: Sign Language
- THEA: Theatre
- DNCE: Dance

### Group III (The Social Sciences)

Six or more credits in courses offered by the departments below:

- ILSD: Institute for Life-Span/Gerontology
- ANTH: Anthropology
- ANTH: Archaeology
- ECON: Economics
- GOEG: Geography and Planning
- POLIT: Political Science
- PSYC: Psychology
- SOCIO: Sociology

### Group IV (The Natural Sciences and Mathematics)

Three or more credits in mathematics, computer science, or statistics; and four or more credits of science courses, including a lab:

- BIOL: Biology
- CHEM: Chemistry
- ANTH:105 Human Evolution
- GEOL: Geology
- MATH: Mathematics (135 or higher)
- CPSC: Computer Science
- STAT: Statistics
- PHYS: Physics

Each student must complete at least 17 Honors credits of coursework prior to graduation. Students should select an honors section of a course if an honors section is offered. Suggested courses and special cases are noted on the Williams Honors College web page.

## Honors Colloquia

All Williams Honors College students participate in the Honors Colloquium series: Humanities, Social Sciences, and Natural Sciences. These one-semester, three-credit courses are interdisciplinary seminars open only to Williams Honors College students.

Code	Title	Hours
HONOR:340	Honors Colloquium: Social Science	3
HONOR:350	Honors Colloquium: Humanities	3
HONOR:370	Honors Colloquium: Natural Science	3

## Honors Research Project

Williams Honors College students are required to complete an Honors Research Project. This capstone of the WHC student's academic and pre-professional studies begins with a choice of faculty adviser and submission of a proposal in the junior year. Students work intensively, with the guidance of a faculty sponsor, on a thesis, investigation, production, or problem of the student's choice. In designing, completing, and reporting on their Honors Research Projects. The students have unique opportunities to apply their learning and test their abilities. Students should register for Honors Research Project course credit, totaling at least 2 credits but not more than 6 credits, in their major department.

## Other Features

### Scholarships

Students admitted to the Williams Honors College are eligible for academic scholarships awarded by the Office of Admissions, ranging from \$500 to \$6000. The Lisle M. Buckingham/Orr Prestigious Scholarships, which provide tuition and general fees, room and board, for up to eight continual semesters, is awarded to students who are selected after an interview process.

### Advising

An Honors Faculty Adviser is available to advise Williams Honors College students in each academic department. With this Honors Faculty Adviser's guidance, the student plans the Honors Distribution and schedules what is needed to meet departmental, college, and Williams Honors College degree requirements. Professional Honors advisers are also available in the Williams Honors College office to assist with general academic advisement issues, personal and career counseling.

### Priority in Registration and Residence Assignment

Williams Honors College students are among the first students to register for classes each semester. In addition, new Williams Honors College students have exclusive access to the Honors complex, which also houses the Williams Honors College offices, computer facilities, seminar, individual and group study rooms, and meeting spaces for the use of commuting WHC students.

### Access to Graduate Courses

With the permission of the WHC Faculty Adviser and the graduate program instructor, a Williams Honors scholar may enroll in graduate courses for either undergraduate credit or up to 12 credits of graduate credit.

### The Honors Advisory Council

Consisting of faculty representing the colleges granting the bachelor's degree and the Dean of the Williams Honors College, the Honors Advisory Council is responsible for decisions on the definition of policies and procedures appropriate to the mission of the WHC.

## Academic Standing in the Williams Honors College

A student's term GPA and cumulative GPA determine whether a student is in good academic standing in the College. A student whose GPA fall below a 2.0 for any given term will be dismissed from the College.

Otherwise, evaluation of status is updated at the end of each spring semester. Students not in good academic standing in the College may be placed on probation or suspension, or dismissed from the Williams Honors College. Specific details on the process are found at Williams Honors College Retention (probation, suspension, and dismissal) policy (<https://uakron.edu/honors/curriculum/retention-and-resignation-information.dot>).

Students are also subject to University of Akron probation and dismissal policies (p. 25).

## Requirements for Graduation as an Honors Scholar

- Compliance with University requirements (p. 29) and major requirements
- Cumulative GPA of 3.40 or higher
- Completion of all required Honors curriculum with a grade of "B" or higher.

## Interdisciplinary Programs

- Military Studies, Military Science, Minor (p. 676)
- Museums and Archives Studies, Certificate (p. 677)

## Military Studies, Military Science, Minor

### Minor in Military Science (160000M)

#### A TWO-PART PROGRAM

The four-year program focuses on critical thinking, principles of leadership, management, ethics and military history. It consists of two parts:

- **Basic Course:** Typically taken during the first and second years. Includes one class per week, physical training and a leadership lab. Focuses on the fundamentals of leadership and an introduction to the Army organization.
- **Advanced Course:** Typically taken during the junior and senior years. Includes two classes per week, physical training, and leadership exercises that emphasize advanced military strategies and adaptive leader development.

The curriculum includes classroom instruction and practical exercises such as orienteering, paintball, rappelling and field training exercises. In the summer between their junior and senior years, Cadets attend a five-week Leadership Development and Assessment Course at Fort Knox, Kentucky.

## EXTRACURRICULAR ACTIVITIES

Students are encouraged to round out their education through social, cultural and professional activities outside of class. Opportunities include:

- Varsity and club athletics
- Ranger Challenge Team (physically challenging competitive events)
- Color Guard
- Voluntary summer training courses
- Government Internships

## CAREER PREPARATION

Students who complete the advanced course are prepared for service as commissioned officers in the active duty Army, or part-time in the Army Reserve or Army National Guard. Cadets may choose from career fields in Air Defense Artillery, Armor, Aviation, Chemical Corps, Corps of Engineers, Cyber Corps, Field Artillery, Infantry, Military Police, Military Intelligence, Signal Corps, Adjutant General's Corps, Finance, Ordnance, Quartermaster Corps, Transportation Corps, Medical Service Corps and Nurse Corps.

Opportunities exist for specialized summer training, including cultural trips abroad, Cadet Troop Leader Training, Airborne School, Air Assault School, Mountain Warfare School and internships with active-duty Army units or federal government agencies.

## SCHOLARSHIPS AND FINANCIAL AID

Various types and lengths of scholarships are available including: General merit-based scholarships up to 4 years, Guaranteed Reserve Force Duty in the Army National Guard or Army Reserve, Science Technology Engineering and Math Majors, and select Language Majors.

Scholarship Cadets receive: full tuition and fees, a subsistence allowance of up to \$500 a month and a book allowance of \$1,200 a year.

Contracted Cadets can earn up to \$2000 per semester for attaining a B- or better in a variety of strategic languages.

Non-scholarship contracted Cadets receive a subsistence allowance of up to \$500 a month.

Non-scholarship and some types of scholarship Cadets may also become part of Army Reserve or Army National Guard units while in ROTC to receive additional benefits.

## ENTRANCE CRITERIA

Any student may take Military Science classes, but in order to contract into Army ROTC, a student must be:

- Enrolled full-time, working toward a bachelor's or graduate degree
- Medically qualified and able to pass a physical fitness assessment
- A U.S. citizen
- Under age 31 at graduation (depending on contract type and status)

Although the program is designed to start with new first-year students each fall, it is possible to enter the program as late as fall of the junior year. Students with prior military service or those who complete a 32-day summer training camp at Fort Knox, Kentucky, may bypass the basic course-level training.

**If you think you have what it takes and the desire to be a leader in the U.S. Army, take the first step by signing-up for a military-science class and contacting the military-science coordinator, Mr. Terry Michaels by calling 330.972.2775 or by clicking the link <https://www.uakron.edu/armyrotc/contact-us.dot>**

The following information has official approval of the **Office of the Provost**, but is intended only as a guide. Completion of this minor is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Minor in Military Studies" and must be completed with a minimum grade point average of 2.0 overall for the minor to be noted on the student's record. Please refer to the University Requirements for Minor Areas of Study (p. 30) for specific graduation information regarding minors.

## Summary

Code	Title	Hours
Required Courses		18
Total Hours		18

## Required Courses

Code	Title	Hours
<b>Select six credits of the following:</b>		<b>6</b>
GNST:205	Leadership Principles and Practices	
MILS:100	Introduction to the Army and Critical Thinking	
MILS:101	Introduction to the Profession of Arms	
MILS:111	Introduction to Tactical Leadership Laboratory	
MILS:200	Innovative Team Leadership	
MILS:201	Foundations of Tactical Leadership	
MILS:210	Innovative Team Leadership Laboratory	
MILS:211	Foundations of Tactical Leadership Laboratory	
<b>Complete a minimum of 12 credits at the 300/400 level</b>		<b>12</b>
MILS:300	Adaptive Team Leadership	
MILS:301	Leadership Under Fire	
MILS:310	Adaptive Team Leadership Laboratory	
MILS:311	Leadership Under Fire Laboratory	
MILS:400	Developing Adaptive Leaders	
MILS:401	Leadership in a Complex World	
MILS:490	Special Topics in Military Science	
Total Hours		18

Note:

- Corresponding lab courses must be taken in conjunction with the military science course.
- With the approval of the Professor of Military Science, substitution of other military related coursework/credit may be made for up to 6 credits (by exception).
- This minor may only be awarded at the time a student receives a baccalaureate degree.

## Museums and Archives Studies, Certificate

### Certificate in Museums and Archives Studies (140001C)

This certificate program provides undergraduate students the opportunity to obtain a working knowledge of the theory and practice of work in museums and archives. Upon completion of the certificate, students will be able to apply the basic skills of the preservation, conservation, presentation and interpretation of archival materials and museum objects.

#### Program Contact

*Dr. Jodi Kearns*

*Director of the Institute for Human Science & Culture*

*330-972-7952*

*jkearns@uakron.edu*

The following information has official approval of the **Office of the Provost**, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Museums and Archives Studies" and must be completed with a minimum grade point average of 2.0 overall for the certificate to be noted on the student's record.

## Summary

Code	Title	Hours
Core Courses		9
Electives		9
Total Hours		18

## Core Courses

Code	Title	Hours
IHSC:301	Foundations of Museums and Archives I	3
IHSC:302	Foundations of Museums and Archives II	3
<b>Choose one of the following courses for at least 3 credits: <sup>1</sup></b>		<b>3</b>
IHSC:425	Practical Experience in Museums and Archives	
ANTH:490	Anthropological Research	
ENGL:392	Internship in English	
HIST:392	Internship in History	
PSYC:495	Field Experience in Psychology	
PSYC:497	Independent Reading/Research in Psychology	
EDCI:497	Independent Study	

ART:452	Service Learning in Art
ART:496	Art Internship/Professional Experience

## Electives

Code	Title	Hours
<b>Complete 9 credits from the following courses:</b>		<b>9</b>
IHSC:201	Curating Exhibits and Displays in Museums and Archives	
ANTH:300	Historical Archaeology	
ANTH:340	Archaeology of Ohio	
ANTH:358	Indians of North America	
ANTH:400	Introduction to Anthropological Data	
ANTH:440	Archaeological Laboratory Methods	
ENGL:300	Critical Reading & Writing	
ENGL:390	Professional Writing I	
ENGL:391	Professional Writing II	
ENGL:489	Seminar in English <sup>2</sup>	
HIST:307	The Ancient Near East	
HIST:310	Historical Methods	
HIST:470	Ohio History	
HIST:484	Museums and Archives	
HIST:485	History, Communities, and Memory	
HIST:487	Science and Technology in World History	
PSYC:345	Cognitive Processes	
PSYC:380	Industrial/Organizational Psychology	
PSYC:460	History of Psychology	
EDFN:200	Introduction to Education	
EDPI:200	Pre-Kindergarten Participation I	
EDIS:225	Introduction to Exceptionalities	
ART:280	Digital Media	
ART:370	History of Photography	
ART:401	Special Topics: History of Art	
ART:402	Museology	
COMM:325	Intercultural Communication	
DNCE:351	History of Ballet	

<sup>1</sup> Students should consult with an advisor to determine which course should be taken.

<sup>2</sup> Topic must be Digital Projects in the Archives.

## Student Support and Success

Students attend the University to learn and grow in all aspects of their lives. The University delivers programs and services that are designed to assist our diverse student body to maximize opportunities for academic, social, cultural, personal and physical growth and development. Sensitive to the changing needs of today's college student, The University is committed to helping students meet their individual academic and personal goals. This responsibility will be accomplished by our commitment to these objectives:

- Creating a civil, supportive learning environment
- Providing academic support systems to increase student persistence and encourage satisfactory educational progress

- Moving beyond tolerance to embrace and celebrate the rich dimensions of difference within each individual and within each culture, subculture and identity group, diversity is a core value that embodies inclusiveness and excellence within the University community
- Collaborating with all constituencies within the University to increase enrollment and improve the quality of the student experience
- Encouraging students to assume responsibility for their educational decisions and experiences
- Identifying and addressing student needs in an evolving environment
- Addressing the student and community needs through programs, activities and services

## Student Life and Living

### Off Campus Living & Commuter Resources

[www.uakron.edu/offcampus](http://www.uakron.edu/offcampus) (<http://www.uakron.edu/offcampus/>)  
330-972-5869  
[uazipassist@uakron.edu](mailto:uazipassist@uakron.edu)

Our office is located within ZipAssist, on the first floor of Simmons Hall, in room 120A. Students may stop in for resources and assistance related to commuting, budgeting, and advice for renting. *Join us for FREE programs throughout the semester to meet other commuter students and stay connected to the UA community!*

**WHO we work with:** Students - transitioning from on-campus living to off-campus and commuters; permanent residents; local area landlords; on-campus departments; and parents of off-campus students ([https://www.uakron.edu/audiences/ua\\_parents/](https://www.uakron.edu/audiences/ua_parents/)).

**WHY:** Our purpose is to help you succeed both on and off campus. We are a resource that fosters student engagement and creates an environment on campus to enable student growth.

**WHAT we do:** Assist you with finding off-campus housing; help commuting students when on campus; partner with local businesses to promote the Akron community; and inform students of their rights and responsibilities as a commuter.

## Student Recreation and Wellness Services

[www.uakron.edu/rec](http://www.uakron.edu/rec) (<http://www.uakron.edu/rec/>)  
Phone: 330-972-2348  
Fax: 330-972-6715

With Student Recreation and Wellness Services, there is so much to explore! Their mission is to serve and engage all students to learn, develop and succeed through innovative recreation and wellness opportunities that encourage healthy and balanced lifestyles. The department includes the following:

1. Club Sports
2. Aquatics
3. Intramural Sports
4. Outdoor Adventure Center
5. Fitness and Wellness
6. Informal Recreation

SRWS are comprised of the following facilities:

- Student Recreation & Wellness Center (SWRC): Amenities include a leisure pool with a current river and vortex, spa, jogging track, cardio and strength equipment, five multi-function gyms, group exercise studios, rock climbing wall and adventure equipment rental.
- Ocasek Natatorium (ONAT): Amenities include an Olympic-size swimming pool, racquetball courts and wallyball courts.
- Central Hower South Gym: This gym provides opportunities for Intramural Sports, and Club Sports practice and competition.

accommodations, undue hardship, or an other circumstance(s) in support of an exemption which, if not granted, would undermine or contravene the purpose of the Freshman Residential Requirement Policy

Students seeking exemption from the Freshman Residential Policy should log into MyAkron (<http://my.uakron.edu>) and click on the Manage Housing portal. Here students will find a link to fill out the appropriate online form.

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## Residence Life and Housing

<http://www.uakron.edu/reslife> (<http://www.uakron.edu/reslife/>)  
330-972-7800  
[reslife@uakron.edu](mailto:reslife@uakron.edu)

The Department of Residence Life and Housing is administratively responsible for managing the University's student housing program. The University provides reasonably priced, clean, convenient and secure residence hall facilities. In addition, the residence hall program is committed to providing a meaningful living/learning environment which directly supports the education, social and personal development of each student. The Department of Residence Life and Housing supervises and manages nine (9) on-campus residence hall facilities accommodating approximately 2,400 students. Students are encouraged to apply for residence hall accommodations as soon as possible.

### Freshman Residential Policy Requirement

The University of Akron is committed to providing a learning environment supportive of its academic mission and complementary to its academic programs. The University acknowledges that national studies find that first-year freshman uniquely benefit from a residence hall experience. Social integration and access to faculty, staff and institutional resources are enhanced through an on-campus residential experience. The University considered and accepted findings that living on-campus positively influences academic persistence and success, including degree completion. For all these reasons, all first-year freshman students at The University of Akron are required to reside in University residence halls for the duration of their freshman academic year at the University as long as space is available. Upon admission to the University, all first-year freshman students will be required to make application for residence in University housing and will be assigned and assessed appropriate room and board fees, so long as space is available and/or unless the student is subject to one of the exemptions below.

Exemptions to the Freshman Residential Policy include:

- Permanent home residence with parents or legal guardians who reside in: Medina, Portage, Stark, Summit or Wayne counties
- Registered for fewer than 6 credit hours
- 21+ years of age
- Military experience 1+ years (proof of service required)
- Married (proof of marriage required)
- Student is parent with custodial care responsibilities (proof of custody care required)
- Permanent home residence of parents or legal guardians who reside outside Medina, Portage, Stark, Summit, or Wayne counties AND such residence is 25 miles or fewer from main campus (proof of residence is required).
- Other extenuating circumstances, including but not limited to special dietary needs or conditions, cultural or religious needs or

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## The Department of Student Life/The Jean Hower Taber Student Union

<https://www.uakron.edu/studentlife/>  
<https://www.uakron.edu/studentunion/>  
330-972-7866

Within the Jean Hower Taber Student Union, there are many offices and services to enhance your collegiate experience. The staff is committed to building community through collaborative learning experiences that provide our students the opportunity to engage, serve and lead. The department includes the following:

1. Student Organization Resource Center (SOuRCe) (<https://www.uakron.edu/studentlife/involvement/source/>),
2. serveAkron (<https://www.uakron.edu/studentlife/involvement/serve/>),
3. Fraternity and Sorority Life (<https://www.uakron.edu/studentlife/involvement/fraternityandsororitylife/>),
4. Zips Programming Network (<https://www.uakron.edu/studentlife/involvement/zpn/>),
5. Campus Programs (<https://www.uakron.edu/studentlife/involvement/campusprograms/>),
6. Event Planning Services (<https://www.uakron.edu/studentunion/event-services/theatre.dot>),
7. Student Employment (<https://www.uakron.edu/studentlife/resources/student-employment/>).

The Jean Hower Taber Student Union is comprised of the following facilities:

Amenities include: PNC Bank (<https://www.uakron.edu/studentunion/amenities/bank.dot>); Campus Bookstore (<https://uakron.bncollege.com/shop/uakron/home/>); 7 retail food operations (<https://akron.campusdish.com/LocationsAndMenus/>) (Auntie Anne's, Chic-Fil-A, Freshens, Panda Express, Qdoba, Starbucks, & The Union Market); DocuZip (<https://www.uakron.edu/printing/docuzip.dot>) (shipping and printing services); The Roo Lounge (<https://www.uakron.edu/studentunion/amenities/roo-lounge/>) (game room); and ample study space, lounges (<https://uakron.edu/studentunion/event-services/su-lounges/>), meeting rooms (<https://uakron.edu/studentunion/event-services/meetingrooms.dot>), The Grand Ballroom (<https://uakron.edu/studentunion/event-services/ballrooms.dot>) and Gardner Theatre (<https://www.uakron.edu/studentunion/event-services/theatre.dot>). Other offices located in the Jean Hower Taber Student Union include: Dean of Students Office (<https://www.uakron.edu/deanofstudents/>), Career Services (<https://www.uakron.edu/career/>) and Student Employment (<https://www.uakron.edu/career/>), ESports (<https://www.uakron.edu/esports/>), and Undergraduate Student Government

(USG), Graduate Student Government (GSG), and Black Excellence Commission (BEC) office suites.

## Support Services for Students

### Academic Advising

[www.uakron.edu/advising/](https://www.uakron.edu/advising/) (<https://www.uakron.edu/advising/>)

New students are required to meet with academic advisors upon initial entry to the University and throughout the first year. Thereafter, academic advisors continue to serve as a resource for students to discuss degree requirements, career goals, major choice, course selection and other academic concerns.

### Career Services & Student Employment

[www.uakron.edu/career/](https://www.uakron.edu/career/) (<https://www.uakron.edu/career/>)  
330-972-7747  
[career@uakron.edu](mailto:career@uakron.edu)

Career Services & Student Employment assists students with career planning by offering virtual and in-person programming, events, individual career advising and opportunities to network with employers for experiential learning and employment. In addition, on-campus student employment and Federal Work Study job opportunities are coordinated through this office.

The Career Services staff is knowledgeable regarding current employment trends, in-demand jobs in Ohio, and internship and job search strategies. Career Advisors actively assist students at every stage of their career development. This includes exploring career paths, building resume and cover letter writing skills, preparing for interviews/graduate school, creating a job search strategy, and finding experiential learning opportunities, such as internships or co-ops and on-campus student employment.

Handshake, UA's online job board, is where students and alumni can apply for internships/co-ops, part-time and full-time jobs, on-campus student employment positions. Students and alumni can also connect with employers, register for virtual and in-person events, download resources guides, schedule virtual and in-person appointments and more on Handshake! Log in at <http://uakron.joinhandshake.com> (<https://nam11.safelinks.protection.outlook.com/?url=http%3A%2F%2Fuakron.joinhandshake.com%2F&data=04%7C01%7Cmk9%40uakron.edu%7C1acebf8ff6b64868cf5308d926c149e0%7Ce8575dedd7f94ecea4aa0b32991aeedd%7C0%7C0%7C637583433885368727%7CUnknown%7CTWFPbGZsb3d8eyJWljoimc4wLjAwMDAiLCJQljoiv2luMzliLCJBTiI6Ik1haWwLlCjXVCi6Mn0%3D%7C1000&sdata=qysBFsVwVHieveP2o2fyf2CkltBjxv0tPLYuuMa5XU%3D&reserved=0>) with your UAnet ID and password.

### Counseling and Testing Center

[www.uakron.edu/counseling/](https://www.uakron.edu/counseling/)  
Phone: 330-972-7082 (Counseling), 330-972-7084 (CTC Testing Services)

The Counseling and Testing Center provides culturally responsive psychological counseling and psychotherapy, career decision counseling, educational counseling, testing, outreach and consulting services to the University community. The Center is staffed by a culturally diverse group of psychologists and psychology trainees. Counseling services are

free and confidential to enrolled students. Testing services includes CTC Testing in Simmons 304 (330-972-7084 or [cctesting@uakron.edu](mailto:cctesting@uakron.edu)) and Computer Based Assessment and Evaluation ([testing@uakron.edu](mailto:testing@uakron.edu)) in Schrank Hall North 152. For more information about testing services, visit [www.uakron.edu/testin](https://www.uakron.edu/testin) (<https://www.uakron.edu/testing/>)g

### Office of Accessibility

[www.uakron.edu/access/](https://www.uakron.edu/access/) (<https://www.uakron.edu/access/>)  
Phone: 330-972-7928  
TDD: 330-972-5764  
[access@uakron.edu](mailto:access@uakron.edu)

The goal of the Office of Accessibility is to provide reasonable accommodations and a supportive, well-resourced environment to students with disabilities in order to promote student success in the university environment. The mission of the Office of Accessibility is to provide students with full access to and the opportunity for full participation in the academic environment. We are advocates of social justice for students with disabilities and work to end oppression by examining social, cultural and institutional barriers to inclusion of all students. We embrace the diversity of our student body, and celebrate a culturally sensitive and accessible campus through outreach, partnership, and advocacy with all university departments.

### Student Health Services

[www.uakron.edu/healthservices/](https://www.uakron.edu/healthservices/) (<https://www.uakron.edu/healthservices/>)  
330-972-7808

Student Health Services, located in Suite 260 of the Student Recreation and Wellness Center, assists students in achieving their educational and personal goals by addressing their health care concerns while they are enrolled at The University of Akron. Our Advanced Practice Nurses are able to diagnose and treat illness, and perform screenings and physicals that will assist you in getting well and staying healthy.

### Tutoring and Writing Centers

[www.uakron.edu/tutoring/](https://www.uakron.edu/tutoring/) (<https://www.uakron.edu/tutoring/>)

The University has two tutoring centers on campus that provide free assistance to currently enrolled students. The centers are located in Bierce Library and the Polsky Building.

#### Bierce Library

- Bierce Writing Commons: For students seeking assistance with a paper assignment for any of their courses, including help with citation styles, visit Bierce Writing Lab
- Bierce Math Lab: Bierce Math Lab offers support for students having difficulty in entry-level math classes. Drop-in hours are available every weekday
- Tutorial Services: Peer tutors are available to students in a wide variety of General Education courses, with emphasis on classes in math and the sciences
- Learning Assistants Program: Specific sections of many courses include a trained Learning Assistant, who holds regular study sessions for students. The Learning Assistant Program provides assistance in the classroom throughout the semester, with professors



and learning assistants working as a team encourage student success.

## Polsky

- Tutorial Services are located on the third floor of the Polsky Building, near the College of Applied Sciences and Technology advising office.
- **Polsky Math Lab:** The Polsky Math Lab (<https://www.uakron.edu/tutoring/math-lab.dot>) provides one-on-one assistance to students having difficulty in basic math courses, College of Applied Sciences and Technology math courses and entry level math courses
- **Polsky Writing Lab:** The Polsky Writing Lab (<https://www.uakron.edu/tutoring/writing-lab.dot>) provides one-on-one assistance with all phases of the writing process, including subject development and organization, grammar and citation. Help is available for writing assignments from any course.
- Appointments for tutoring sessions in the Polsky tutoring labs are recommended and can be made by calling 330-972-7046. A limited number of walk-in sessions are available on a first-come, first-served basis.

## ZipAssist

[www.uakron.edu/zipassist](http://www.uakron.edu/zipassist) (<https://www.uakron.edu/admissions/>)  
330-972-7272  
[uazipassist@uakron.edu](mailto:uazipassist@uakron.edu) ([admissions@uakron.edu](mailto:admissions@uakron.edu))

ZipAssist serves as a **student advocacy and support office** and centralized information hub for the University's campus. Located on the first floor of Simmons Hall (office 120A), ZipAssist has been **intentionally** designed to share **available resources**, and **provide support** and assistance to help students **persist in their academic pursuits** at the University.

If you are aware of a UA student who is in distress, has intent to leave UA, or would benefit from additional guidance and support...please submit a Help-A-Zip referral at [www.uakron.edu/referral](http://www.uakron.edu/referral) (<https://www.uakron.edu/referral/>)

The **Help-A-Zip Referral Program** is here to help you navigate campus and can support you directly with concerns related to:

- Financial/Tuition and Fees (FAFSA, account holds, budgeting, textbooks)
- Emergency Financial Assistance (food insecurity, financial crisis)
- Academic (study skills, tutoring)
- Personal/Social (connecting to campus, finding resources)
- ZipsTech & Textbooks (loaned technology or textbooks)

### **Additional Services and Programs:**

- Help-A-Zip Referrals
- Retention Grants & Emergency Assistance
- Balancing on a Budget – Financial Literacy Education
- Off-Campus Living & Commuter Resources
- Parent & Family Association [PFA]
- U.S. Passport Acceptance
- Simmons - Information Desk
- Celebratory & Educational Programming
- *...your go-to campus resource!*

## Referring Students

**There are multiple offices and support services available on campus for students:**

### **Help-A-Zip Referral Program**

[www.uakron.edu/referral](http://www.uakron.edu/referral) (<https://www.uakron.edu/referral/>)

This early alert and intervention program can help students navigate campus and the ZipAssist Team can support students directly with concerns related to: Financial: Tuition and Fees, Emergency Financial Assistance, Academic concerns, or Personal/Social.

### **Title IX**

<https://www.uakron.edu/title-ix> (<https://www.uakron.edu/title-ix/>)

As a University, we are committed to ensuring compliance with Title IX, a federal law that prohibits discrimination based on the sex (gender) of employees and students. Assistance is available to those impacted by sexual harassment, sexual violence (sexual assault, intimate partner violence or stalking) or retaliation, regardless of whether any formal administrative or criminal process is initiated.

### **CARE Team**

<https://www.uakron.edu/care> (<https://www.uakron.edu/care/>)

Crisis – Assessment – Referral – Evaluation (CARE): Helping students in crisis.

UA's CARE Team provides guidance and assistance to students who are experiencing crises, displaying odd or unusual behaviors, or are engaging in other behaviors that may be perceived as being harmful (either to the student individually, or to others).

### **Student Conduct & Community Standards**

<https://www.uakron.edu/studentconduct/>

The Department of Student Conduct and Community Standards can receive referrals from **any member of the University and surrounding community** who has reason to believe a student or student organization has violated the definitions of misconduct (<https://uakron.edu/studentconduct/code-of-conduct.dot>) in the Code of Student Conduct. The following chart illustrates the most common sources of referrals: Police, Faculty/Staff, Residence Life, Students, and Community.

## General Student Services

### **Admissions**

[www.uakron.edu/admissions](http://www.uakron.edu/admissions) (<https://www.uakron.edu/admissions/>)  
800-655-4884  
[admissions@uakron.edu](mailto:admissions@uakron.edu)

### **New Student Orientation**

[www.uakron.edu/nso/](http://www.uakron.edu/nso/) (<https://www.uakron.edu/nso/>)  
330-972-2622  
[orientation@uakron.edu](mailto:orientation@uakron.edu)

### **Bursar**

[www.uakron.edu/student-accounts/](http://www.uakron.edu/student-accounts/) (<https://www.uakron.edu/student-accounts/>)  
330-972-5100  
[cashier@uakron.edu](mailto:cashier@uakron.edu)

## Office of Financial Aid

[www.uakron.edu/finaid/](http://www.uakron.edu/finaid/) (<https://www.uakron.edu/finaid/>)  
800-621-3847  
[finaid@uakron.edu](mailto:finaid@uakron.edu)

## Information Technology Services

<https://www.uakron.edu/it/>  
330-972-6888

# Additional Academic Programs and Services

## Study Abroad

<http://www.uakron.edu/study-abroad/> (<https://www.uakron.edu/study-abroad/>)

Global awareness and intercultural communication are critical competencies for graduates entering the workforce, regardless of intended profession. Participation in an Education Abroad program is an opportunity to develop these skills while enhancing one's academic and personal growth. Students at The University of Akron have the opportunity to study in almost any country for a few weeks to a full academic year. The International Center at UA cultivates exchange relationships with universities in countries such as Australia, France, Greece, Egypt, South Korea, China, Vietnam, Japan, and the Netherlands. UA also maintains affiliation agreements with several organizations that offer a wide variety of education abroad opportunities in the countries above and many others. In addition, several academic units sponsor short-term faculty-led programs. For more information, students may schedule an advising appointment or attend the Education Abroad Fair.

## Learning Communities/Living-Learning Communities and Themed Housing

<http://www.uakron.edu/lc/> (<https://www.uakron.edu/lc/>)

<http://www.uakron.edu/reslife/lc/index.dot> (<https://www.uakron.edu/reslife/lc/>)

A Learning Community is a group of students who take two to four classes together during their first semester focusing on a specific theme, academic major or interest. Learning Communities are designed to: ease transition into college, build connections and form study groups, experience intentionally designed activities and opportunities, and explore their major or common interests with peers. There are more than 40+ learning community opportunities to explore.

Living-Learning Communities (LLC) and Themed Housing allow students to: access an enhanced residential experience through specialized programs, experience increased faculty and staff contact outside the classroom (for living-learning communities), experience greater academic support opportunities, foster a greater connection to the University, and build lifetime friendships. From Outdoor Adventure to ROTC; Business to Pre-Med, there are LLCs and Themed Housing opportunities available to hundreds of students each year.

## Academic Achievement Programs

<https://www.uakron.edu/aap/>

Academic Achievement Programs is dedicated to the mission of preparing Akron middle and high school students for greater access and success in higher education. Systematic academic, social and cultural experiences are provided through four distinct programs during the academic year, along with a six week summer enrichment component. These experiences expand and enhance their academic instruction and adds value to the overall development of students. Activities are intended to empower students to make better decisions at home, in school and in personal relationships, which will help improve their self worth, impact high school graduation rates and facilitate the successful admission to and graduation from post secondary educational institutions.

## The Reserve Officer Training Program (Army ROTC)

[https://www.uakron.edu/academics\\_majors/undergraduate/rotc.dot](https://www.uakron.edu/academics_majors/undergraduate/rotc.dot)

The University of Akron supports and promotes a robust officer training program — Army Reserve Officer Training Corps (ROTC). ROTC produces leaders for the Army while building better citizens for America. ROTC is a military educational program designed to give men and women the opportunity to become officers while earning a college degree. The program requires a set of classes and labs in addition to your other college courses. Typically, ROTC credits can be applied as general elective credits toward your degree. Students can also earn a Military Science Minor by completing 18 credit hours. ROTC offers generous scholarships, leadership training, and many other experiences simply not available through any other college course. ROTC classes and leadership training will help you sharpen your analytical skills; you'll learn to evaluate changing conditions and make appropriate decisions. Upon successful completion of the prescribed coursework and training, students receive a commission in either the active duty Army, Reserves or National Guard.

## Office of Multicultural Development

<https://www.uakron.edu/omd/>

The mission of the Office of Multicultural Development (OMD) at The University of Akron is to prepare students to live and excel in a global society. As an advocate for equity and social justice, they ensure that students of diverse ethnic, social and cultural backgrounds achieve their fullest potential in an affirming environment which supports access, retention, and successful completion of goals. This mission is characterized by extensive student-focused collaboration with all segments of the campus community.

Services of The Office of Multicultural Development include our Peer Mentoring program, Learning Communities and academic advising. Peer Mentoring, one-on-one relationship between an experienced student-mentor dedicated to student success. Our Peer Mentors go through intense and thorough training in order to meet the needs of students of all backgrounds and provide them a safe, stable and confidential place to be mentored. OMD's Learning Communities help to support the growth, retention, support and completion of a bachelors program by students from various ethnic, social and cultural backgrounds. OMD also provides first-year advising as a wrap-around services for students as well as a two-day New Student Orientation experience known as our ADVANCE New Student Orientation program.

The Office of Multicultural Development is also heavily involved with the planning and execution of the nationally recognized Black Male Summit

which is held each spring, and created for educators, employers, parents/guardians of black males and other males of color in an effort to support this vulnerable demographic in the successful acceptance, attendance and completion of high school and college.

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## Adult Focus

<https://www.uakron.edu/uaaf/>

Adult Focus is an academic support service designed to assist adults and military veterans as they transition in their role as students to The University of Akron. It offers academic support, transitional coursework, advocacy, scholarship referral and assistance throughout their academic career. Any student, regardless of age, whose primary life roles and responsibilities exist independent of the University and take precedence over the role of student in times of crisis or stress is considered to be an adult student.

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## Continuing and Professional Education

<https://www.uakron.edu/learn/cpe/>

Continuing and Professional Education offers professional certification and noncredit courses to businesses, organizations and individuals. Classes are scheduled weekdays, evenings and weekends. Many courses are approved by professional, national and state organizations for certificate and license re-certification. More than 300 classroom and online courses are available each semester.

Continuing and Professional Education is a full service consulting firm operating from The University of Akron. We exist as a liaison between the immense collection of resources within the University, and our region's corporations of all sizes and industries. Our value, both to the University and to our clients, is a powerful and customizable solution-based service that identifies development opportunities and produces programs and solutions that can only come from the expertise of The University of Akron.

Continuing and Professional Education instructors customize and conduct employee training onsite for companies and organizations.

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## Additional Locations

[https://www.uakron.edu/academics\\_majors/locations.dot](https://www.uakron.edu/academics_majors/locations.dot)

The University operates several educational centers in our surrounding communities.

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## University Partnership Program - Lorain County Community College (LCCC)

<http://www.lorainccc.edu/UP> (<https://www.lorainccc.edu/UP/>)

The University Partnership Program brings colleges and universities, including The University of Akron, to the LCCC campus to offer the coursework and programs that students need for bachelor's and master's degrees. Degrees offered parallel those that LCCC offers, enabling students to move into higher level degrees without leaving LCCC. More information is available by calling the University Partnership at 800-995-5222 ext. 4949.

## Fees and Expenses

**Fees subject to change without notice.**

### Student Expenses

Following are comprehensively outlined fees for students at the University who are studying for credit and noncredit in all areas of instruction. Included also are the additional expenses required for special academic services available to students and other miscellaneous fees, such as application fees. It is the responsibility of the student to know the correct amount of all fees, including the non-Ohio resident surcharge.

In any question concerning fees, surcharges or residence, it is the responsibility of the student, parents or court-appointed guardian to furnish such proof as may be required by The University of Akron. A student who is in doubt about residency status should consult with the University registrar.

It is the responsibility of the registrar to assess fees and surcharges at the time of registration; information given by the student at that time is used in the assessment. Each registration is later audited by the University auditor, and appropriate additional charges or refunds will be made.

All fees and surcharges are due at the time of registration or on the specified fee payment deadline. The status of the student as of the opening day of the semester or session will determine the final, correct amount of fees and surcharges.

An Installment Payment Plan for tuition and fees is available to all students.

### Tuition and Fees

Tuition and fee information for Undergraduate and associate degree programs is available on the Office of Admissions website ([https://www.uakron.edu/admissions/undergraduate/tuition\\_fees.dot](https://www.uakron.edu/admissions/undergraduate/tuition_fees.dot)).

#### Admission Application Fees (Nonrefundable)

Fee	Cost
Undergraduate	\$50
Entering postbaccalaureate or graduate	\$50
Transient students (first enrollment only)	\$50
International Students (non-refundable)	\$60

#### Orientation Program Fees

Fee	Cost
New Student Orientation Program: University Commitment Fee (Confirms new student intent to attend orientation and enroll in classes for next academic term. Placement tests taken on UA campuses are included in this fee.)	\$145
International Student Orientation	\$145
Placement Test Fees: Individual retesting and external users	\$25/test

## Registration and Other Related Fees

Fee	Cost
Administrative Fees, Assessed each term (all students except high school students taking University courses; transient, unclassified and special students; and undergraduate students who have completed 96 credits or more)	\$30/term
Late Payment Fees (charged to students who have not paid for tuition and mandatory fees by the invoice due date)	\$100
Co-op Course Fee	\$55
<b>Alternative Credit Fees</b>	
Bypassed Credit, per credit	\$5
CLEP, per test	\$25 (plus ETS fee paid to ETS)
Credit by Examination (undergraduate and postbaccalaureate) per credit	\$30
TestPrep Tutorial	\$100 per course

## Facility Fee

Fee	Cost
Student Facility Fee	\$18.55/credit hour up to a maximum of 12 credit hours

## General Service Fee

Fee	Cost
Akron Campus & College of Applied Science and Technology pursuing a bachelor's degree	\$35.70/credit hour up to a maximum of 12 credit hours
Akron Campus pursuing an associate's degree	\$27.60/credit hour up to a maximum of 12 credit hours
Medina County University/Center Wayne College	\$7.34/credit hour up to a maximum of 12 credit hours

## Technology Fee

Fee	Cost
Academic Level: 0-95.5 Credits	\$13.20/credit hour
Academic Level: 96 Credits or More	Exempt

## Residence Hall Refunds

### Refund/Release and Forfeiture Policy

A contract for housing accommodations at The University of Akron upon being breached by the student or otherwise terminated by The University of Akron is subject to the following refund provisions:

A **full refund** of room fees and the Prepayment under the following circumstances:

- Graduation of the student from The University of Akron;
- Academic dismissal of the student from The University of Akron;
- Non-attendance or complete withdrawal by the student from The University of Akron prior to the start of the Contract term (except the advance rental payment of one hundred fifty dollars which shall be forfeited). The one hundred fifty dollar deposit be refunded for new entering students and new transfer students when notification of

intent to break Contract is received prior to the fifteenth of May for the following fall semester and the fifteenth of October for Contracts initiated for spring semester; or

- In the event mandatory or recommended participation in academic programs of The University of Akron requires the student to commute regularly beyond the Akron metropolitan area (i.e., student teaching or co-op assignments)

Once occupancy has been established (i.e. acceptance of room keys and signing occupancy document) and the student remains enrolled at The University of Akron, the student must petition for contract release and the student will only be released if able to demonstrate extenuating circumstances.

If the student is released from the contract, either by petition or non-enrollment for the then current term, the student will be subject to a refund schedule based on a percentage refund from the first day of class through the twenty-eighth calendar day. In addition, if the Student is granted release from the contract after taking occupancy during the fall term or prior to the twenty-eighth calendar day of the spring term, a cancellation fee of two hundred dollars will be charged.

Refund policy for housing charges:

- First day of class through day seven equals ninety percent refund;
- Day eight through day fourteen equals eighty percent refund;
- Day fifteen through day twenty-one equals sixty percent refund;
- Day twenty-two through day twenty-eight equals forty percent refund; and
- Day twenty-nine or after equals zero percent refund.

The housing refund date will be established based on the date that the Student officially surrenders use of the university housing and returns all appropriate keys (room and apartment keys) to university staff and satisfies university mandated housing separation requirements and procedures.

A student shall remain responsible for the full cost of the then-current residence hall Contract term if the University, at its sole discretion, terminates the contract:

- For reasons related to the orderly operation of the residence halls, or for reasons relating to the health, physical or emotional safety and well-being of the persons or property of students, faculty, staff or University property; or
- In the event that the student is dismissed or suspended from The University of Akron for disciplinary reasons in accordance with law or the rules and regulations of the Board of Trustees, or, if the student is suspended or placed on terms of disciplinary probation in accordance with law or the rules and regulations of the Board of Trustees, whereby such terms of probation prohibit the student from residing in University housing accommodations

**Notice requirements.** All notices of intent to break this contract must be submitted in writing to the Department of Residence Life and Housing. If the student is under the age of eighteen years, the written notification of termination must be co-signed by the student's parent or legal guardian.

**No-Show Policy.** The University will hold a student's assignment until close of business on Wednesday of the first week of each semester. At that time the room will be reassigned, student's Contract will be cancelled

and Prepayment will be forfeited, or cancellation fee incurred, whichever is applicable.

## Audit and Non-Credit (Developmental) Courses

The cost is the same whether a course is taken for credit non-credit (developmental) or audit.

## Miscellaneous Fees

### Career Advantage Services Fees

Fee	Cost
All undergraduate students except students with 96 credits or more	\$3/credit hour

### Career Services

Fee	Cost
Registration Fee for alumni and reciprocity (covers 12-month cost of employer referrals)	\$45

### LeBron James Family Foundation College of Education

Fee	Cost
Tk20 Portfolio	\$100

### College of Engineering and Polymer Science

Fee	Cost
CEPS Program Fee - all majors in the College of Engineering and Polymer Science above 30 hours	\$15/credit hour, up to a maximum of 12 hours per semester
Infrastructure Fee – all engineering courses	\$26/credit hour

### Counseling, Testing and Career Center

Fee	Cost
Cognitive Functioning and Academic Achievement Tests	\$55
Learning Disability Battery	\$100
ACT Residual Test	\$60
ACT Residual Test Standby (\$20 plus \$60 ACT fee)	\$80
College Level Examination Program (CLEP)	\$25 (plus ETS fee paid to ETS)
Educational Testing Services Fee	(Currently \$80; subject to change throughout the year. Fee is paid directly to ETS.)
Correspondence Testing	\$20/hr
Miller Analogies Test	\$90
Professional Consultation Fee per hour	\$120
Individual Administration of ACT Residual Test	\$155
Psychological and Career Tests	\$10
Psychological Assessment (not part of Counseling - an independent test)	\$50
Attention Deficit Disorder (ADD/ADSD) Assessment	\$150
CDs (For relaxation, stress management, etc.)	\$1

## Dance Institute Fees

Fee Description	Period	Amount
Placement Fee with Pre-Registration		\$20.00
Placement Fee without Pre-Registration		\$30.00
New Student Registration Fee		\$10.00
<b>Summer Curriculum (1-4 weeks)</b>		
Advanced	4 weeks	\$1,020.00
	3 weeks	\$800.00
	2 weeks	\$538.00
	1 week	\$318.00
Intermediate II	4 weeks	\$900.00
	3 weeks	\$710.00
	2 weeks	\$510.00
Intermediate I	4 weeks	\$848.00
	3 weeks	\$662.00
	2 weeks	\$476.00
Beginner/Advanced-Beginner	2 weeks	\$311.00
Afternoon Beginner/Advanced-Beginner Arts Camp w/ dance (2 weeks)		\$140.00
Afternoon Arts Camp only (2 weeks)		\$204.00
Pre-Ballet/Storybook Dance (one 45-minute classes/week)	4 weeks	\$55.00
Tap (2 classes/week)		\$110.00
Adults:(one class/week)	5 weeks	
Ballet/Jazz/Modern - 1.5 hours		\$70.00
Pilates -based Mat Exercise/Hip-Hop/Ballet - 1 hour		\$57.00
Summer Single Classes		\$15.00
<b>Program Discounts (only one type of discount may be applied)</b>		
UA Faculty & Staff Family		20% off per person
Multiple Child/Family Member Attending		25% off 2nd, 30% off 3rd
UA Dance Majors/Minors		20% off full summer program and/or single class
<b>Academic Year Curriculum (two 16-week semesters total)</b>		
Advanced	9 classes/week	\$3,100.00
Intermediate II	7 classes/week	\$2,624.00

Intermediate I	6 classes/week	\$2,318.00
Advanced-Beginner	4 classes/week	\$1,722.00
Beginner B	3 classes/week	\$1,304.00
Beginner A	2 classes/week	\$872.00
Pre-Ballet	1 class/week	\$438.00
Storybook Dance	1 class/week	\$438.00
Tap	1 class/week	\$438.00
<b>Adults:</b>		
Ballet/Jazz/Modern - 1.5 hours	1 class/week	\$448.00
Pilates-based Mat Exercise/Hip-Hop/Ballet - 1 hour	1 class/week	\$360.00
Academic Year Single Classes		\$15.00
Singles Classes for UA Dance students		\$7.50
<b>Program Discounts</b>		
UA Faculty & Staff Family		20% off per person
Multiple Child/Family Member Attending Dance Institute		25% off 2nd, 30% off 3rd
Refund Service Charge (per refund)		\$25.00
This fee would be charged to any student or student's parent who has paid tuition and requests a refund due to an injury or an extenuating circumstance. (No charge would be incurred for crediting the tuition to the time period when the student returns.)		
Late Pick-up Fees (beginning 10 minutes after the end of the last class) <sup>1</sup>		\$15 per hour

<sup>1</sup> For students who are not picked up following the last class of the day—must be paid at the time of pickup or before the beginning of the next scheduled class.

### Developmental Support Fees

Fee	Cost
Charged to all students enrolled in Developmental courses	\$12.50/credit hour

### English Language Institute

Fee	Cost
Late Registration	\$50
Application fee	\$50

Materials fee, per level, per semester/8-week session \$50/40

### Health Services

Fee	Cost
Allergy injections	\$6
Immunizations	\$24-\$61
Laboratory Tests (avg. costs for most common tests)	\$6-\$196
Prescribed Medications/Treatments	\$3.60-\$43.20
Visit fee	\$15

### ID Fees

Fee	Cost
ZipCard Replacement	\$20

### Insufficient Funds Fees

Fee	Cost
"Insufficient Funds" or returned check charge and VISA/Mastercard returns for Insufficient Funds	\$25

### International Programs

Fee	Cost
Guest Travel Abroad Participant Fee	\$300

### Liability Fees

Fee	Cost
Liability Insurance Fee, Student Nursing	\$15
Liability Insurance Fee, Allied Health Technology/Surgeon's Assistant	\$61.50
Liability Insurance Fee, Allied Health Technology/Other than Surgeon's Assistant	\$15

### Library Fees (Bierce, Auburn Science and Wayne)

Fee	Cost
Library Fee (excluding seniors, Law School and Wayne College students); College of Applied Science and Technology associate students 0-95.5 credit hours	\$4/credit hour; \$3/credit hour
Photocopies and printing charges	\$.07/page

### Overdue Materials

UA students, undergraduate (maximum)	\$.10/day
Non-University borrowers (maximum)	\$.25/day
Replacement	Cost plus \$20 surcharge
Fines for recalled materials	\$1/day
Fines for hourly reserve materials	\$2/hour (\$50 max.)
Fines for daily reserve materials	\$2/hour (\$50 max.)
Fines for OhioLINK loans	\$.50/day (\$50 max.)
Fines for laptop computer late fee	\$10/hour (\$100 max.)

### Archival Services

Photograph for personal use	\$5 + costs
Photograph for commercial use	\$75 + costs

Research time by assistant (min. 2 hrs)	\$20/hour
Photocopying time by assistant (min. 2 hrs)	\$15/hour + copies
Photocopies	\$.25/copy + postage
Film footage for commercial use (price varies)	\$45/second
<b>Research Service</b> (1-hour minimum charged)	
UA students, faculty and staff	At cost
Research fee (charged in 15 min. increments)	\$90/hour

### Nutrition Center

Fee	Cost
Minimum Fee	\$5
Initial Comprehensive Nutrition Assessment	\$80
Individual 50-minute session	\$50
Additional quarter session	\$12.50
Additional half session	\$25
Follow-up Nutrition Session	\$25
Nutrition Screening	\$15
Computerized Nutrient Analysis	\$30/day
Group Sessions (per session, per member)	\$15

### Special Services

Indirect Calorimetry	\$75
Body Composition Testing (BIA, skinfold measurement)	\$15
Nutrition Education Presentation	\$120
Menu Planning Consultation	\$75
Computerized Menu Analysis (per hour)	\$75
Food Systems Management Consultation (per hour)	\$75
Sports Nutrition Testing & Consultation (per-hour)	\$80

### Athletic Team Performance

<b>&amp; Recovery Service</b> (Includes three 50-minute group sessions, three screening sessions and two on- or off-season education presentations)	
Up to 20 athletes	\$2,000
21 or more athletes	\$100 each additional athlete
Nutrition Education/Instruction Materials	Acquisition cost x 1.5
(A sliding scale or the Health & Human Services guideline on poverty will be used if the client has no insurance and if the family income and the number of dependents indicate there is a need.)	

### Off-Campus Student Services

Fee	Cost
Locker Rental Fee per semester	\$25
Damaged or Lost Equipment Fee	Cost + 10%

### Student Conduct and Community Standards

Fee	Cost
<b>Administrative Fees</b>	
Finding of Responsibility:	
Agreement reached during Fact Finding	\$50
Agreement reached through Hearing Board Process	\$75

### Disciplinary Fines

Restitution for lost/stolen/damaged while in possession (max)	Cost plus 20%
Substance Abuse Violations:	
Alcohol use/possession/distribution 1st, 2nd, 3rd offense	\$50, \$100, \$150
Drug/controlled substance use/possession 1st, 2nd, 3rd offense	\$100, \$150, \$250
Serious Violations of the Code of Conduct	
Violent/threatening behavior	\$150
Theft	\$150
Weapons	\$150
Drug sales/distribution, 1st offense	\$150
Other Fines: Impose a fine on the student which corresponds to the nature of the violation, not to exceed the maximum value of \$250. For example, fines may be imposed for issues such as students who host or promote large parties or events that are not in compliance with Akron city regulation and/or result in negative consequence for the university community.	\$0-\$250

### Student Recreation and Wellness Services

Full details including the full list of membership and guest fees can be found at the Student Recreation and Wellness Services (<https://www.uakron.edu/rec/>) website

### University Police Department

Fee	Cost
Police Service Calls (for vehicle assistance)	\$10
Special Events Detail (3 hour minimum)	\$44/hour
Police Report – 1-5 pages	No Charge
6 or more pages	.05/page
Fingerprinting – Students, faculty and staff	\$5/card
All others	\$15/card
Photo	\$5

Web-based records check: BCI only/ \$29/\$31/\$56  
FBI only/BCI and FBI

## Parking and Transportation Fees

Students and employees who desire a twenty-four hours per day, seven days per week parking privilege may apply for a permit and be assessed an optional parking permit fee for such privilege. The University may limit the locations that such permit shall be valid, and may limit the number of such permits that will be issued per year, per academic term, or other period. Qualified residence hall students will receive this parking privilege pursuant to the terms of their residence hall contract, without the necessity of paying an additional optional parking permit fee.

Complete student transportation information and instructions and costs of obtaining a parking permit can be found on the Parking Services website (<https://www.uakron.edu/parking/>).

## Enrollment Cancellation

An undergraduate student whose financial account shows an amount due after their assigned due dates risks having all or part of their registration for current and/or future terms cancelled; however, non-payment of fees does not guarantee enrollment cancellation. If a student enrolls in classes and then decides not to attend, it is still the student's responsibility to drop their classes to ensure the proper credit toward fees for the term, as defined by the current refund policy.

How to drop a class (<https://www.uakron.edu/zipassist/academics.dot?opane=9>)

## Payment Plans and Options

Payment plans are available to help those students who cannot pay the full charges for tuition, on-campus housing and/or the meal plan at the start of the semester. To read more and sign up, visit the Payment Options portion of the Office of Student Accounts website ([https://www.uakron.edu/student-accounts/payments\\_and\\_billing/payment-options.dot](https://www.uakron.edu/student-accounts/payments_and_billing/payment-options.dot)).

## Student Health and Accident Insurance

All registered students taking six or more credit hours, doctoral students, ELI students and other special academic program students are eligible to enroll in a student health insurance plan offered by the Leonard Insurance Company on behalf of the University. All registered international students taking credit hours are required to purchase this insurance plan unless proof of comparable coverage is furnished. Visit the Student Health Insurance page (<https://www.uakron.edu/healthservices/insurance/>) located within the Student Health Services website.

## Veterans Information

The mission of the Center is to provide comprehensive enrollment and referral services to veterans and their families, making the transition to The University of Akron as smooth as possible. Full veteran information can be found at the Military Services Center website (<https://www.uakron.edu/veterans/>).

## Regulations Regarding Refunds

The Office of Student Accounts helps students and parents by addressing questions and concerns about refunds if needed. Complete details are located on that website (<https://www.uakron.edu/student-accounts/refunds/>).

## Tuition Guarantee Program

The University of Akron Tuition Guarantee Program provides fixed tuition, select fees, and room and board rates for each incoming cohort of bachelor degree-seeking undergraduate students for four years of attendance, beginning with the fall 2018 enrollees. More information can be found on the Tuition Guarantee Program website (<https://www.uakron.edu/student-accounts/costs/tuition-guarantee/>).

## Financial Aid

Financial aid programs were developed by federal and state governments, as well as by institutions of postsecondary learning to assist students from families with limited resources in meeting their educational expenses. The primary purpose of financial aid is to ensure that no person is denied the opportunity of attending college because of financial need.

Generally, financial aid is provided in four forms: scholarships, grants, loans and work. To apply for all types of state and federal aid and programs, complete the Free Application for Federal Student Aid (FAFSA). You will be required to complete a separate application for University and non-university scholarships.

## Mission Statement

The Mission of The University of Akron's Office of Student Financial Aid is to help students achieve their educational potential. This office accomplishes this by:

- Adhering to state and federal regulations as well as University policies regarding the awarding of aid funds
- Being committed to removing financial barriers for those who wish to pursue postsecondary learning
- Making every effort to assist students with financial need
- Having an awareness of the issues affecting our students and advocating for our students' interests at the institutional, state and federal levels
- Educating our students and their families by providing quality consumer information
- Respecting the dignity and diversity of each one of our students by providing services that do not discriminate on the basis of race, gender, ethnicity, sexual orientation, religion, disability, age or economic status
- Ensuring the confidentiality of our students' information
- Assuring the uniform application of all needs analysis formulas consistently across The University of Akron's full population of financial aid applicants
- Committing to the highest level of ethical behavior by avoiding conflict of interest or the appearance of such a conflict

Maintaining the highest level of professionalism reflects the Student Financial Aid office's commitment to the goals and mission of The University of Akron.

The Financial Aid website (<https://www.uakron.edu/finaid/>) will serve as your guide. It has all the information needed to get started with financial aid applications and learn about the process of using aid to pay for college.



## Research Centers and Institutes

- Akron Global Polymer Academy (p. 689)
- Akron Polymer Technology Services (p. 689)
- Center for Advanced Vehicles and Energy Systems (p. 689)
- Center for Conflict Management (p. 689)
- Center for Emergency Management and Homeland Security Policy Research (p. 690)
- Center for Environmental Studies (p. 690)
- Center for Family Studies (p. 690)
- Center for Information Technologies and eBusiness (p. 690)
- Center for Literacy (p. 691)
- Center for Organizational Research (p. 691)
- Center for Silver Therapeutics Research (p. 691)
- Center for Statistical Consulting (p. 691)
- Continuing and Professional Education (p. 691)
- English Language Institute (p. 691)
- Fisher Institute for Professional Selling (p. 691)
- Gary L. and Karen S. Taylor Institute for Direct Marketing (p. 692)
- H. Kenneth Barker Center for Economic Education (p. 692)
- Institute for Biomedical Engineering Research (p. 692)
- Institute for Global Business (p. 692)
- Institute for Human Science and Culture (p. 693)
- Institute for Life-Span Development and Gerontology (p. 693)
- National Center for Education and Research on Corrosion and Materials Performance (p. 693)
- Nutrition Center (p. 693)
- Ray C. Bliss Institute of Applied Politics (p. 693)
- The Drs. Nicholas and Dorothy Cummings Center for the History of Psychology (p. 693)
- The EX[L] Center for Experiential Learning (p. 694)
- The University of Akron Archives and Special Collections (p. 694)
- Training Center for Fire and Hazardous Materials (p. 694)
- University of Akron Magnetic Resonance Center (UA/MRC) (p. 694)
- William and Rita Fitzgerald Institute for Entrepreneurial Studies (p. 695)

## Akron Global Polymer Academy

The Akron Global Polymer Academy provides opportunities for teachers and students of all ages to experience the exciting world of polymers through a variety of offerings, including: in-school visits featuring engaging hands-on demonstrations, polymer family science nights, field trips to our exciting research college, and many polymer-related classroom resources available through this educational website.

AGPA also connects with K-12 students through an assortment of STE(A)M (Science, Technology, Engineering, Art, and Mathematics) initiatives, like: the Akron Regional Science Olympiad (<https://www.uakron.edu/polymer/agpa-k12outreach/science-olympiad/>), the Western Reserve District 5 Science Day (<https://uakron.edu/wrsd/>), our annual Rubber Band Contest for 5th-8th graders (<http://rubberbandcontest.org/>), as well as an ongoing STEM research experience for high school students.

Our K-12 outreach group also provides professional development for teachers. One example is through our Research Experience for

Teachers (<https://www.uakron.edu/polymer/agpa-k12outreach/research-experience-for-teachers/>) (RET) program, which is an NSF funded program that brings teachers into the College of Polymer Science and Polymer Engineering's cutting-edge research laboratories, where they work alongside an actual research group. RET teachers work on developing their own research inspired lesson plans, designed to bring their cool research experiences back into their classrooms!

Website: Akron Global Polymer Academy (<https://www.uakron.edu/polymer/agpa-k12outreach/>)

## Akron Polymer Technology Services

At Akron Polymer Technology Services (formerly the Akron Polymer Training Center and Applied Polymer Research Center), our mission is to advance all sectors of the polymer industry through the delivery of training, testing, and processing services that enrich learning and optimize industrial performance. Services are enhanced by the capabilities within The University of Akron and by developing domestic and international partnerships with business, industry, community, and other institutions of higher education.

Website: Akron Polymer Technology Services (<https://www.uakron.edu/aps/>)

## Center for Advanced Vehicles and Energy Systems

The Center for Advanced Vehicles and Energy Systems (CAVES), established in 2005, focuses on the research, development and dissemination of advanced automotive technology and alternative energy systems and their enabling technologies. The Center's efforts are geared toward product-oriented research, development and commercialization of efficient cost-effective solutions to alternative transportation systems, advanced energy sources and storage and their real-time control platforms. In addition to providing research services to industry, private and government agencies, CAVES also provides knowledge dissemination through symposia, lectures, seminars and project-oriented graduate and undergraduate design experiences.

The Electrical and Computer Engineering and Mechanical Engineering departments have graduate and undergraduate students and faculty currently involved in hybrid vehicle technology, energy systems and related areas. CAVES' activities are housed within a number of facilities, including the Power Electronics Laboratory, the Controls Research Laboratory, the Battery Research Facility, the Hybrid Electric Facility and the Pervasive Automation Laboratory, among others.

Website: Center for Advanced Vehicles and Energy Systems (<https://www.uakron.edu/engineering/research/caves.dot>)

## Center for Conflict Management

The University of Akron has a long and proud history of the interdisciplinary study of conflict because understanding the nature of conflict is the first step toward reducing conflict and violence at home, in our communities, workplaces and schools. The Center for Conflict Management, administered by the department of Sociology, seeks to build on its interdisciplinary tradition by combining courses in several departments to enhance the capacity of students to effectively work toward reducing the harms associated with conflict and violence—from interpersonal to international.

For more information, please contact:

Dr. Robert Peralta

Professor, Dept of Sociology

Director, Center for Conflict Management

330-972-6915

rp32@uakron.edu

Website: Center for Conflict Management (<https://www.uakron.edu/conflict/>)

## Center for Emergency Management and Homeland Security Policy Research

The Center for the Emergency Management and Homeland Security Policy Research is dedicated to create a supportive environment for research, academics and outreach in emergency management and homeland security. It supports and encourages multidisciplinary endeavors in these fields that make a positive contribution to society. The Center is a collaborative partnership between The University of Akron and The Ohio Emergency Management Agency.

The Center focuses on policy and its interaction with the function of emergency management. This policy analysis and research relates to contemporary emergency management questions and issues on both state and national levels. Project areas include terrorism preparedness, business and industry continuity, disaster response and recovery assessment, as well as management practices relating to crises and disasters.

Website: Center for Emergency Management and Homeland Security Policy Research (<https://www.uakron.edu/cem/>)

## Center for Environmental Studies

The University of Akron's Center for Environmental Studies, located in Crouse Hall 215, was founded in 1970 to encourage multidisciplinary approaches to address environmental issues and resolve environmental problems.

The Center is a cooperative effort of several departments including Biology, Chemistry, Chemical Engineering, Civil Engineering, Economics, Education, Geosciences, History, library, Political Science, and Sociology. There are about ninety affiliated faculty.

The Center provides opportunities for scientists, educators, students and special interest groups to work together on issues of environmental concern.

In recent years the Center has: directed an undergraduate and graduate certificate program of study; fielded responses to local inquiries regarding environmental problems; and sponsored workshops and seminars on environmental issues

Website: Center for Environmental Studies (<https://www.uakron.edu/envstudies/>)

## Center for Family Studies

The Center for Family Studies, established in 1979, was designed to stimulate and encourage the interdisciplinary study of the family. It serves both the University and the community by fostering collaboration

between faculty, students, practitioners and community leaders on curriculum development, educational conferences and seminars (<https://www.uakron.edu/cfs/events/Seminars/>), research (<https://www.uakron.edu/cfs/events/research/>) and training (<https://www.uakron.edu/cfs/events/Trainings/>) and public policy relevant to important family issues. The Center is a member of the Sloan (Foundation) Work and Family Research Network and can supply current and credible information on work-family issues to its constituencies.

The Center is represented by faculty from a variety of disciplines. It also includes leaders from various community systems, such as schools, hospitals, courts, churches, mental health, social and health care agencies. In addition, the Center has a fellows program in which outstanding faculty and community leaders are named as fellows, adjunct fellows or senior fellows.

The Center offers certificates in the following specialty areas: Parent Education (<https://www.uakron.edu/cfs/Certificate-Programs/parent-education/>), Divorce Mediation (<https://www.uakron.edu/cfs/Certificate-Programs/divorce-mediation/>) and Home-Based Intervention (<https://www.uakron.edu/cfs/Certificate-Programs/home-based-intervention/>).

Any student, faculty member or community person interested in family issues is invited to contact the director (<https://www.uakron.edu/cfs/contact-us/>) to learn how they can participate or learn more about the Center's activities.

Website: Center for Family Studies (<http://www.uakron.edu/cfs/>)

## Center for Information Technologies and eBusiness

The Center for Information Technologies and eBusiness (CITe) is a multi-disciplinary Center within the College of Business Administration. CITe provides an important resource connecting IT Executives with Information Systems (IS)/Business Analytics (BA) Faculty and IS/BA Students that will provide educational, research and networking opportunities. CITe was created in 2000 with the mission to teach students and develop faculty in the principles and practices of the related disciplines of Information Technology (IT) and electronic business. Today, the Center has expanded its focus to include Business Analytics (BA) and Data Science (DS). CITe will accomplish its mission by providing scholarships, mentoring, internships & co-op opportunities to students in the IS/BA discipline; provide resources to conduct research in the IS/BA discipline to faculty, and conduct several outreach activities and day long conferences that promote IT and Business Analytics among the NE Ohio companies.

CITe is made up of an advisory board of Information Technology leaders from the North-East Ohio region and the College of Business Administration faculty, staff, and students. The objectives of CITe are to advance information systems (IS), and Business Analytics (BA) programs, research, best practices, and related activities at The University of Akron. The vision of CITe is to be widely recognized as an important resource connecting IT executives with IS/BA faculty & students at The University of Akron that will provide educational, research, and networking opportunities for students, faculty and local businesses.

Website: Center for Information Technologies and eBusiness (<https://www.uakron.edu/cite/>)

## Center for Literacy

The Center for Literacy furthers the mission of both The University of Akron and the LeBron James Family Foundation College of Education through a variety of programs that support development of expertise and dissemination of knowledge about language learning. The Center brings preservice, inservice and university teachers together with children and families in the greater Akron area through a wide range of literacy related projects.

Website: Center for Literacy (<http://www.uakron.edu/education/community-engagement/literacy/>)

## Center for Organizational Research

The Center for Organizational Research (COR) is a consulting center operating within the Psychology Department at The University of Akron. The purpose of COR is to provide organizations with evidence-based solutions to the issues that confront people in work environments, with areas of specialization including human resource management, organizational development, and survey work. COR is able to offer a tailored approach to the client's needs because of its smaller client base and research orientation. Our consulting services are delivered by teams of graduate students and I/O faculty members. Collaboration with faculty gives COR a unique strength, as the I/O Psychology Department at The University of Akron consistently ranks as one of the top ten programs in the nation. As such, COR is in an excellent position to provide top quality consultation and research-based interventions to the business community. Some of our services offered include: adverse impact analysis, leadership training and development, performance management, customized research studies, employee attitude surveys, training development and evaluation, job analysis, and item and test writing and development.

Website: Center for Organizational Research (<https://www.uakron.edu/cor/>)

## Center for Silver Therapeutics Research

The Center for Silver Therapeutics Research is a research consortium composed of UA faculty researchers from many different departments and colleges. The center seeks to advance the use of silver ion-containing compounds for the treatment of a wide range of infections and in the antineoplastic area.

Website: Center for Silver Therapeutics Research (<https://www.uakron.edu/cstr/>)

## Center for Statistical Consulting

The mission of the Center for Statistical Consulting in the Department of Statistics is to provide the University community and the community at large with professional assistance in the design and analysis of statistical problems for theses, dissertations and research. For more information or to arrange an appointment, please contact Dr. Rich Einsporn. When requesting statistical consulting, refer to the Center's website, fill out the Request for Statistical Consulting form and email it to the department on the available link. The department will contact you for an appointment.

Website: Center for Statistical Consulting (<https://www.uakron.edu/statistics/about-us/center-for-statistical-consulting.dot>)

## Continuing and Professional Education

The mission of Continuing and Professional Education is to serve the people of Northeast Ohio by offering courses and programs that increase access to The University of Akron, linking it with community, business and industrial workforce needs.

Continuing and Professional Education at The University of Akron provides a wide range of educational, technical and research services that enhance the effectiveness and quality of workforce learning. In addition, Continuing and Professional Education provides services that require the special expertise of the faculty and staff to better serve the economic and social development of Northeast Ohio.

Website: Continuing and Professional Education (<https://www.uakron.edu/learn/cpe/>)

## English Language Institute

Established in 1979, the English Language Institute (ELI), part of the Buchtel College of Arts & Sciences, offers a program in English as a Second Language (ESL) instruction. The English for Academic Purposes Program provides non-credit ESL courses to international students and nonnative residents who plan to pursue an undergraduate or graduate degree at The University of Akron or another U.S. university. The intensive, 20-hours per week program also serves individuals who wish to improve their English to meet their own professional and/or personal goals.

ELI courses at four levels of English proficiency target language and academic skills needed for successful study at a U.S. university: reading efficiently, writing clearly, taking lecture notes and communicating effectively in English. Students also study grammar and vocabulary and prepare for language proficiency tests to meet the University's English requirement. In addition to its instructional program, the ELI administers The University of Akron Developed English Proficiency Test (the U-ADEPT), which assesses the speaking ability of prospective international teaching assistants at UA and determines their readiness to provide classroom-related services in their graduate departments.

The ELI serves as a resource on issues relating to language proficiency for University faculty, staff and students as well as for members of the local community.

## Fisher Institute for Professional Selling

Established through a generous gift from Ronald and Diane Fisher in 1992, the Ronald R. and Diane C. Fisher Institute for Professional Selling was officially launched in January 1994 with a new facility and a new Director, Dr. Jon Hawes. The University of Akron was the second university in the United States to officially start a sales program, after offering sales classes since the mid 1980's. In April of 2002, U.A. was one of nine founding member universities to create the University Sales Center Alliance (U.S.C.A.). The sole purpose of this organization is to enhance professionalism in sales, and share best practices to further the development and training of future sales professionals. Currently, the University of Akron is one of only 32 Full Member (56 total member),

schools which are accredited by the U.S.C.A. Considered by many as one of the nations best sales education programs, our University of Akron sales and marketing students are the benefactors of the Fisher Institute for Professional Selling, resulting in the support of over 30 Corporate Partnerships, and virtually 100% job placement for nearly a decade.

Per the vision of Ronald and Diane Fisher, the mission of the Fisher Institute for Professional Selling is: to enhance the image of the sales profession and to promote professional selling and sales management as a rewarding lifelong career; to provide world-class, high-quality excellence in sales education through our sales major, minor in professional selling, and our three sales certificate programs (General, Healthcare and Engineering). Our robust sales education delivered by our outstanding and experienced sales faculty, along with our one-of-a-kind, state-of-the-art sales facility has resulted in outstanding sales readiness of our sales students. Well prepared sales students quickly grow into top sales talent for the corporate partners. Our brand new Fisher Institute has 9 large sales lab rooms with dual zooming cameras and cloud-based video and audio recording which can be accessed from anywhere in the world where Wi-Fi is available. With over 1,000 sales program graduates, the University of Akron alumni has made a profound positive impact on the local and regional business community.

In business today, the sales function generates the revenue that enables the rest of the corporation to operate. Jobs are usually abundant in the field of sales and out current job placement for our graduating sales majors and minors is 100% (compared to 37% in some other majors).

Coming Soon... U.A. will be re-launching executive sales training for our Fisher Corporate Partners and regional companies. Please visit our Fisher website for more information.

Website: Fisher Institute for Professional Selling (<https://www.uakron.edu/cba/fisher/>)

## Gary L. and Karen S. Taylor Institute for Direct Marketing

The Gary L. and Karen S. Taylor Institute for Direct Marketing was established at The University of Akron's College of Business Administration (CBA) in 2005 with a major gift from Gary and Karen Taylor, both of whom are UA alumni and leaders in the field of direct marketing.

The Taylor Institute was founded to support undergraduate and MBA students in the specialized ideas, issues, and techniques of Direct/Interactive Marketing, including:

- Social Media Marketing
- Marketing Analytics & Database Marketing
- Qualitative Marketing Research
- Integrated Marketing Campaign Development
- Teleservices
- Digital Marketing (SEO and SEM)

The Taylor Institute is charged with a mission to advance best practices and disseminate new Direct/Interactive Marketing knowledge through the development of marketing business leaders through Education, Research, and Service.

Taylor Institute programs and initiatives are designed to be integrated with the Marketing curriculum and provide experiential learning opportunities to supplement the theoretical learning students receive in

the classroom making the Taylor Institute truly the location *"where theory meets practice."*

Website: Gary L. and Karen S. Taylor Institute for Direct Marketing (<https://www.uakron.edu/cba/centers-and-institutes/taylor/>)

## H. Kenneth Barker Center for Economic Education

This center exists to improve the economic literacy of individuals to help them function competently as citizens, producers and consumers. It conducts workshops, seminars and economic programs for teachers, students and interested groups. It provides consulting services in the area of economic education and acts as a clearinghouse for the gathering and dissemination of economic education materials and programs. It also fosters an understanding and appreciation of the American economic system.

Website: H. Kenneth Barker Center for Economic Education (<https://www.uakron.edu/barkercenter/>)

## Institute for Biomedical Engineering Research

This institute was established in 1979 to promote interdisciplinary studies in the rapidly growing areas of knowledge, which overlap the fields of biology and medicine, on the one hand, and engineering and the physical sciences, on the other. It conducts seminars, courses and degree programs in biomedical engineering in association with the College of Engineering and individual departments.

In addition to its research and educational functions, the institute provides a research service to local hospitals and industry, as well as to private and government agencies. The premise for this program is that the combined resources of the University, Northeastern Ohio Universities College of Medicine and affiliated organizations will often permit more cost-effective solutions than would be possible by an individual or group doing the research independently.

The work of the institute is carried out by faculty of the Department of Biomedical Engineering in association with members selected from the faculties of The University of Akron and Northeastern Ohio Universities College of Medicine, as well as from the ranks of area physicians, engineers and scientists. The institute and the department occupy the third floor of the Olson Research Center on the north edge of the campus.

## Institute for Global Business

The Institute for Global Business (IGB) was established in 1996 with the mission to educate high-quality business students with the skills and understanding necessary to assume leadership roles in an increasingly global business world.

The dynamic changes in the world's physical, political, economic and cultural environments have created new challenges along with new opportunities to effectively compete in the marketplace as it exists today and will evolve tomorrow.

In addition to our academic programs, the IGB connects students to hands-on professional development programs and practical experiences that build global fluency and prepare students to enter the global marketplace career-ready and connected. The Institute also facilitates the study abroad programs (<https://www.uakron.edu/cba/centers-and-institutes/igb/study-abroad-programs/>) within The College of Business

Administration and provides scholarships for students to attend these programs. With a focus on providing our students a holistic academic experience with significant global learning opportunities, the IGB has been an integral component of CBA since its inception. Dedicated faculty having varied international experience and expertise are committed to student success and pursue an active research agenda to provide enriched learning opportunities for students.

For more information, please contact:

Dr. Mahesh Srinivasan  
Director  
330-972-5440  
maheshs@uakron.edu

Dr. Il-Woon Kim  
Associate Director  
330-972-7461  
ikim@uakron.edu.

Website: Institute for Global Business (<https://www.uakron.edu/cba/centers-and-institutes/igb/>)

## Institute for Human Science and Culture

The Institute for Human Science and Culture (IHSC) is a multidisciplinary institute that promotes education and research in the history, preservation, documentation, and interpretation of the human experience. The mission of the IHSC is to explore what it means to be human. The IHSC promotes document- and object-based, experiential education in arts, humanities, and science.

Website: <https://www.uakron.edu/chp/institute/>

## Institute for Life-Span Development and Gerontology

The Institute for Life-Span Development and Gerontology, founded in 1976, coordinates multidisciplinary credit certificate programs in gerontology at the undergraduate and graduate levels.

The Institute of Life-Span Development and Gerontology has grown into a campus-wide program involving more than 63 faculty in more than 20 different departments, representing six colleges. Students in the certificate programs carry out field placements at numerous community service settings. There are more than 40 courses at the undergraduate and graduate levels. Research, education, training and service support has been received from the U.S. Administration on Aging, National Institute on Aging, U.S. Department of Education, Office of Special Education and Rehabilitation Services, National Institute on Disability and Rehabilitation Research, AARP Andrus Foundation, Ohio Department of Aging and Area Agency on Aging 10B. The Institute also served as a major site for the Rehabilitation Research and Training Center Consortium on Aging and Development Disabilities involving seven universities in six states.

The Institute houses the Tri-County Senior Olympics.

Website: Institute for Life-Span Development and Gerontology (<https://www.uakron.edu/ilsdg/>)

## National Center for Education and Research on Corrosion and Materials Performance

Housed at The University of Akron, the National Center for Education and Research on Corrosion and Materials Performance (NCERCAMP) provides a multi-disciplinary approach to help government and industry develop solutions for corrosion and materials performance challenges, whether they are unique or day-to-day problems.

The Center has a comprehensive set of programs and services in education, workforce training, research, technology development, outreach, and public policy activities.

Website: National Center for Education and Research on Corrosion and Materials Performance (<https://www.uakron.edu/ncercamp/>)

## Nutrition Center

The University of Akron Nutrition Center is a comprehensive regional center for the study and delivery of effective nutrition interventions. It provides the needed link between UA nutrition expertise and the extensive preventative health care needs of the campus and our surrounding community. The Center serves as an educational resource for students and the community, provides nutrition services and conducts research in sports nutrition, chronic disease treatment, wellness and disease prevention, nutrition information technology, food safety and sanitation and community nutrition.

Website: Nutrition Center ([https://www.uakron.edu/nutritiondietetics/nutrition\\_center.dot](https://www.uakron.edu/nutritiondietetics/nutrition_center.dot))

## Ray C. Bliss Institute of Applied Politics

The Ray C. Bliss Institute of Applied Politics is a bipartisan research, teaching and experiential learning institute dedicated to increasing understanding of the political process with special emphasis on political parties, grassroots activity, civility and ethics, and hands-on learning through internships and events.

Website: Ray C. Bliss Institute of Applied Politics (<https://www.uakron.edu/bliss/>)

## The Drs. Nicholas and Dorothy Cummings Center for the History of Psychology

The Drs. Nicholas and Dorothy Cummings Center for the History of Psychology (CCHP) is an internationally recognized research and humanities center that cares for, provides access to, and interprets the historical record of psychology and related human sciences. Founded at The University of Akron in 1965, it has grown to become the largest collection of its kind in the world. A Smithsonian Affiliate, the CCHP includes the National Museum of Psychology (<https://www.uakron.edu/chp/museum/>), the Archives of the History of American Psychology (<https://www.uakron.edu/chp/archives/>), and the Institute for Human Science and Culture (<https://www.uakron.edu/chp/institute/>).

The CCHP reflects the interdisciplinary nature of the examination of what it means to be human and includes specialists in both psychology and library science. Scholars, students of all ages, and the public are welcome to participate in coursework, programs, research, and exhibitions, that utilize the CCHP's one-of-a-kind collections.

The CCHP offers an 18 credit-hour undergraduate certificate in Museum and Archives Studies. The certificate provides students with a basic set of skills that prepares them for work in museum and archives professions and for graduate study in these areas.

Website: Cummings Center for the History of Psychology (<https://www.uakron.edu/chp/>)

## The EX[L] Center for Experiential Learning

Experiential learning is a process through which students gain knowledge and skills while advancing their understanding of themselves as effective members of our evolving society. Fundamentally interdisciplinary in nature, experiential learning opportunities challenge students to integrate information from a range of fields or perspectives and to work with team members or others and in the process to explore new ways of doing and thinking about a specific topic or concern.

Experiential learning at UA is distinguished by the following elements. First, experiential learning opportunities engage students actively in a combination of intellectual, physical, creative, social, and/or emotional ways. Second, these opportunities require students to take initiative, participate in decision-making, and stand accountable for outcomes of their activity. Third, experiential learning is structured so that reflection on individual and/or group activity occurs across the semester. Finally, this reflection leads to critical thinking, relevant analysis and synthesis, and a consideration of how the experience has shifted the students' understanding of themselves as scholars and global citizens.

Experiential learning at UA includes a wide variety of activities: internships, co-ops, practicum and clinical activities, service learning, student teaching, fieldwork, participatory research, community-based research, lab-based research, study abroad, unclasses, juried exhibitions, and performances.

Website: The EX[L] Center for Experiential Learning (<https://www.uakron.edu/exl/>)

## The University of Akron Archives and Special Collections

Archives and Special Collections (formerly Archival Services) of University Libraries collects, preserves, and provides access to primary and secondary source materials that document the history of The University of Akron and the region in order to support the operational needs of the institution and the teaching and research activities at the university and in the wider intellectual community. The department consists of University Archives, Special Collections, and Records Management. University Archives serves as the official repository of The University of Akron and its predecessor institutions from its founding as Buchtel College in 1870 to the present and includes the official records of the university that have lasting historical value. Special Collections serves as an archival repository for historic materials that document the history of the geographic region of which the university is a part and includes personal papers and records of local governments, businesses,

labor unions, and civic, religious, and cultural organizations. Collecting focuses include the history of Akron/Summit County, the rubber and polymer industry, lighter-than-air flight, Ohio canals, the B-26 Marauder and 9<sup>th</sup> Air Force, and the book and print culture. Records Management provides campus offices guidance and training regarding the retention and disposition of university records in all formats. Archives and Special Collections hosts historical displays and exhibitions and provides reference and research assistance, primary source instruction, and class visits and tours.

Website: The University of Akron Archives and Special Collections (<https://collections.uakron.edu/>)

## Training Center for Fire and Hazardous Materials

The Training Center for Fire and Hazardous Materials brings the University, government and industry together into one comprehensive regional center to integrate educational programs, fire and hazardous materials training and other applications of fire and safety technology. The Center is chartered from the Division of EMS and offers all State Certified Classes for firefighter certification. The Center employs 190 certified Emergency Services Instructors to fill any training requirement for municipal and business and industry. The center coordinates seminars and workshops presented by the Federal Emergency Management Agency (FEMA), the National Fire Academy, the Division of State Fire Marshal and other related organizations. Training in all phases of hazardous materials containment and fire prevention and control is provided under contract to various municipalities, industries and agencies. The programs are supported by the faculty of the Fire Protection Technology degree program and the Emergency Management degree program in association with other state and nationally recognized professionals. The Training Center services a multi-county area, having partnerships with Portage Lakes Career Center, Macedonia Fire Department, and Lakemore Fire Department. We also run 3 University of Akron Fire Academies and 3 high school Fire Academies that include Portage Lakes Career Center, Four Cities Compact, and Cuyahoga Valley Career Center.

Website: Training Center for Fire and Hazardous Materials (<https://www.uakron.edu/fire/>)

## University of Akron Magnetic Resonance Center (UA/MRC)

The MRC provides UA students and faculty, and the industrial and external academic scientific community, with access to routine and state-of-the-art magnetic resonance facilities and technical expertise. These capabilities include instruments for solution and solid state NMR, electron paramagnetic resonance, and the expertise of technical staff with experience in using these instruments for problem solving in chemistry, biological sciences, polymer science and engineering. Students and faculty are trained in the use of the instruments and NMR techniques in general through an ongoing educational process. The Center has instruments in The Knight Chemical and Goodyear Polymer buildings.

Website: University of Akron Magnetic Resonance Center (UA/MRC) (<http://www.uakron.edu/chemistry/magnet/>)

# William and Rita Fitzgerald Institute for Entrepreneurial Studies

In 1995, a generous gift from William and Rita Fitzgerald created the Fitzgerald Institute for Entrepreneurial Studies in the College of Business Administration. The Institute was established to promote the principles of free enterprise and encourage entrepreneurial spirit and practices both within the University's curriculum and throughout the business community.

The Fitzgerald Institute focuses on the development of curriculum appropriate for both new ventures and the entrepreneurial development and growth of existing businesses. The Institute provides the needed link between the University and the community of entrepreneurs critical to business development in the future.

Website: William and Rita Fitzgerald Institute for Entrepreneurial Studies (<https://www.uakron.edu/cba/centers-and-institutes/fitzgerald/>)

## Courses of Instruction

### Course Numbering System

Each course at the University has two parts: the first designates the college and department of which it is part and the second specifies the subject matter of the particular course. For instance:

ENGL:111 English Composition

In the above example, the first part (ENGL) indicate the department. In this case, ENGL represents the Department of English. The second part (111) indicates exactly which course in the Department of English is being specified. The course number also indicates the level at which the course is being taught and the point at which the student is ready to take the course.

An explanation of the course numbering system follows:

Course Number	Description
100-199	First-year-level courses
200-299	Second-year-level courses
300-399	Third-year-level courses
400-499	Fourth-year-level courses
500-699	Master's-level courses
600-799	Juris Doctorate-level courses
700-899	Doctoral-level courses

When approved 400-level undergraduate courses are taken for graduate credit, they are designated as 500-level courses. A student must apply for and be admitted to the Graduate School to receive graduate credit.

**NOTE:** Courses listed each term contain an additional three-digit number indicating the specific section(s) offered.

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- Aerospace Studies (AERO) (p. 698)
- Aerospace Systems Engineering (AESE) (p. 698)
- Allied Health (ANAT) (p. 699)
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- Anthropology (ANTH) (p. 701)
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## B

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## Accounting (ACCT)

### ACCT:200 Accounting Principles for Non-business Majors (3 Credits)

Prerequisite: Minimum of 24 credit hours. Introduction to accounting principles including accounting for revenues, expenses, assets, liabilities, equity, accounting standards and financial statements. This course is designed for non-business majors. It does not count toward the required courses for business or accounting majors; College of Business students cannot earn credit for ACCT 200 Accounting Principles for Non-Business Majors. (Formerly 6200:200)



**ACCT:201 Accounting Principles I (3 Credits)**

Prerequisite: 24 hours of college credit. Introduction to accounting principles including accounting for revenues, expenses, assets, liabilities, equity, accounting standards and financial statements. (Formerly 6200:201)

**ACCT:202 Accounting Principles II (3 Credits)**

Prerequisite: ACCT 201. Information needs of management. Analysis of cash flow and financial statements. Study of product costing systems; standard costs; planning, budgeting, and control systems; overhead cost allocation; cost-volume-profit analysis; relevant costing; and capital budgeting. (Formerly 6200:202)

**ACCT:250 Spreadsheet Modeling & Decision Analysis (3 Credits)**

Prerequisite: Completion of 24 credit hours at The University of Akron. In-depth study of spreadsheet applications and databases to support decision-making and problem-solving in business and accounting. (Formerly 6200:250)

**ACCT:290 Specialized Study (1-3 Credits)**

Prerequisite: Grade of C or better in ACCT 201. Opportunity to study a specialized area in accounting at the sophomore or junior level (may be repeated with change of subject). (Formerly 6200:290)

**ACCT:301 Cost Management and Control (3 Credits)**

Prerequisites: [ECON 200 or ECON 244], grades of not less than "C" in ACCT 201, ACCT 202, and ACCT 250, and admission to a major in the College of Business Administration. Product cost accumulation, cost management strategies, performance evaluation, and application of cost in business decisions. (Formerly 6200:301)

**ACCT:305 Cooperative Education in Accounting (0 Credits)**

Prerequisites: ACCT 201, ACCT 202, ACCT 250. Approved work experience in accounting and taxation. Performance evaluation and written report required. (Formerly 6200:305)

**ACCT:316 Financial Applications Development (3 Credits)**

Prerequisite: ACCT 201, ISM 315. Analysis, design and development of financial and control applications. Integration of intelligent agents into financial information systems for risk assessment, control, and assurance of businesses processes. (Formerly 6200:316)

**ACCT:320 Accounting Systems and Internal Control (3 Credits)**

Prerequisites: A grade of not less than "C" in ACCT 201 and ACCT 250, and admission to a major in the College of Business Administration. Covers analysis design, implementation, governance and evaluation of accounting systems; business process modeling and accounting transaction cycles; and internal control. (Formerly 6200:320)

**ACCT:321 Financial Reporting and Analysis I (3 Credits)**

Prerequisite: Admission to a major in the College of Business Administration, a grade of not less than a "C" for accounting majors in ACCT 201 or permission. Financial reporting and analysis of cash, receivables, inventories, property, plant and equipment, intangibles and liabilities. Covers U.S. GAAP, IFRS, SEC reporting, and corporate financial reporting policy. Emphasizes professional accounting research. (Formerly 6200:321)

**ACCT:322 Financial Reporting and Analysis II (3 Credits)**

Prerequisite: Admission to a major in the College of Business Administration and a grade of not less than a "C" in ACCT 321 or permission. Financial reporting and analysis of owners' equity, investments, revenue recognition, tax allocations, pensions, leases, accounting changes, cash flows, segments, and interim periods. Covers U.S. GAAP, IFRS, SEC reporting, and corporate financial reporting policy. Emphasizes professional accounting research. (Formerly 6200:322)

**ACCT:330 Contemporary Federal Taxation (3 Credits)**

Prerequisites: Admission to a major in the College of Business and ACCT 201 with a grade of C or better. Pre/Corequisite: ACCT 321 or admission to the Financial Planning major. Examines current federal tax practices with an emphasis on individual taxes. (Formerly 6200:330)

**ACCT:405 Experiential Learning in Accounting (3 Credits)**

Corequisite: ACCT 305. Approved experiential learning in accounting. Instructor approval required. (Formerly 6200:405)

**ACCT:408 International Financial Reporting & Analysis (3 Credits)**

Prerequisites: Admission to a major in the College of Business Administration, a grade of not less than a "C" in ACCT 201 and ACCT 202, and [an international business major (INTB) or ACCT 321]. Covers international accounting standards, analysis of foreign financial statements, international tax issues, accounting for foreign currency, transfer pricing and international auditing standards. (Formerly 6200:408)

**ACCT:410 Taxation for Financial Planning (3 Credits)**

Provides students preparing for careers in financial planning with the necessary knowledge of federal tax law as applied to individuals and businesses. Not to be used as an accounting elective. (Formerly 6200:410)

**ACCT:420 Advanced Financial Reporting and Analysis (3 Credits)**

Prerequisite: Admission to a major in the College of Business Administration and ACCT 322. Examination of accounting theory and financial reporting practices for business combinations, partnerships, foreign operations, nonprofit entities and consolidated statements. Covers U.S. GAAP, IFRS, SEC reporting, and corporate financial reporting policy. Emphasizes professional accounting research. (Formerly 6200:420)

**ACCT:424 Business Law (3 Credits)**

Prerequisite: Completion of 64 credits. Understand business law and concepts dealing with the legal environment of business and their applications, including: business ethics, the American legal system, tort law, contracts, secured transactions, bankruptcy, real property, business entities, environmental law, antitrust. (Formerly 6200:424)

**ACCT:431 Business Entity Taxation (3 Credits)**

Prerequisites: ACCT 330 and admission to a major in the College of Business Administration. Federal income tax law related to partnerships, corporations, trusts and estates; also includes an overview of federal estate and gift tax law. (Formerly 6200:431)

**ACCT:440 Assurance Services and Professional Responsibilities (3 Credits)**

Prerequisites: ACCT 320, ACCT 322, ACCT 330, and admission to a major in the College of Business Administration. Examines assurance services including external auditing and professional responsibilities. Focuses on standards, professional ethics and independence requirements, and procedures used in conducting assurance services. (Formerly 6200:440)

**ACCT:441 Information Systems Audit & Control (3 Credits)**

Prerequisites: Admission to a major in the College of Business Administration, ACCT 440 and ACCT 454 or permission. Learn the fundamental concepts and practices of information systems audit control. Use of contemporary control frameworks, objectives and standards to discuss integrity, control, governance, assurance and effectiveness of financial information systems. (Formerly 6200:441)

**ACCT:450 Advanced Applied Analytics & Decision Analysis (3 Credits)**

Prerequisites: Admission to a major in the College of Business, ACCT 201, and ACCT 250, or equivalents. Study advanced topics in data analytics and decision analysis in the context of accounting and business. Topics may include advanced Excel techniques, PowerBI, and other applied analytics software. (Formerly 6200:450)

**ACCT:454 Information Systems Security (3 Credits)**

Prerequisites: [ACCT 320 or ISM 310] and admission to a major in the College of Business Administration. Focus on information systems risk and security in distributed business environments; develop policies, practices and systems for security of computers and data in business with emphasis on financial information systems. (Formerly 6200:454)

**ACCT:460 Advanced Managerial Accounting (3 Credits)**

Prerequisites: Admission to a major in the College of Business Administration, ACCT 301, ACCT 320, and [SCM 330 or SCM 333]. The use of financial and non-financial information in decision making, performance evaluation of business units, strategy and governance, and management control. (Formerly 6200:460)

**ACCT:470 Governmental Accounting (3 Credits)**

Prerequisites: ACCT 321 or equivalent. Theory and procedures involved in application of fund accounting, budgetary control, appropriations and various accounting systems to governmental units, educational, medical and other non-profit institutions. Covers financial reporting for government and not for profit entities and GASB standards. (Formerly 6200:470)

**ACCT:475 Experiential Learning in Tax (3 Credits)**

Prerequisite: ACCT 330 or equivalent with grade of C- or better or permission of the instructor. Students focus on the application of tax law to specific transactions. Students learn to communicate with low-income and nonresident alien clients and work to achieve the best tax outcome when preparing tax returns. Students learn to use tax software and learn to review their own work prior to submitting to the professor for review. (Formerly 6200:475)

**ACCT:490 Special Topics in Accounting (1-3 Credits)**

Prerequisite: Permission of instructor. Opportunity to study special topics and current issues in accounting. May be repeated with a change of subject. (Formerly 6200:490)

## Aerospace Studies (AERO)

**AERO:113 Heritage and Values I (1 Credit)**

Survey course introducing the U.S. Air Force and ROTC. Officership and military customs and courtesies are discussed. Foundations of Air Force communication are covered. (Formerly 1500:113)

**AERO:114 Heritage and Values II (1 Credit)**

Survey course covering the origin and organization of the Air Force. Selected topics contributing to an understanding of the Air Force are covered. (Formerly 1500:114)

**AERO:115 Leadership Laboratory (1 Credit)**

Prepares an individual to undertake a broad range of technical tasks. Optional for academic credit; Mandatory for Air Force ROTC credit for scholarship/commissioning. (Formerly 1500:115)

**AERO:253 Team & Leadership Fundamentals I (1 Credit)**

Survey course examining air and space power from an historical perspective. Course covers early flight and World War I to the Korean War and ICBMS. (Formerly 1500:253)

**AERO:254 Team & Leadership Fundamentals II (1 Credit)**

Survey course examining air and space power from the Vietnam War to the Gulf War plus a look at the Air Force of the future. (Formerly 1500:254)

**AERO:255 Leadership Laboratory (1 Credit)**

Prepares an individual to undertake a broad range of technical tasks. Optional for academic credit; Mandatory for Air Force ROTC credit for scholarship/commissioning. (Formerly 1500:255)

**AERO:303 Leading People/Effective Communication I (3 Credits)**

Prerequisite: Permission of instructor. Study of leadership, professional knowledge and communication skills required for an Air Force officer. The roles of a leader as supervisor and counselor are discussed. (Formerly 1500:303)

**AERO:304 Leading People/Effective Communication II (3 Credits)**

Prerequisite: Permission of instructor. Study of quality management fundamentals and communication skills for the Air Force officer. The Air Force personnel evaluation system and military ethics are discussed. (Formerly 1500:304)

**AERO:305 Leadership Laboratory (1 Credit)**

Prepares an individual to undertake a broad range of technical tasks. Optional for academic credit; Mandatory for Air Force ROTC credit for scholarship/commissioning. (Formerly 1500:305)

**AERO:453 Leading National Security/Leadership Responsibilities I (3 Credits)**

Prerequisite: Permission of instructor. Examines political, economic and social constraints on national security and defense structure. The role of the military, including joint operations and regional defense, are discussed. (Formerly 1500:453)

**AERO:454 Leading National Security/Leadership Responsibilities II (3 Credits)**

Prerequisite: Permission of instructor. Roles of the military, regional defense, current Air Force issues, and other topics relevant to preparing an Air Force officer for active duty are covered. (Formerly 1500:454)

**AERO:455 Leadership Laboratory (1 Credit)**

Prepares an individual to undertake a broad range of technical tasks. Optional for academic credit; Mandatory for Air Force ROTC credit for scholarship/commissioning. (Formerly 1500:455)

## Aerospace Systems Engineering (AESE)

**AESE:165 Tools for Aerospace Systems Engineering (2 Credits)**

Pre/Corequisite: MATH 149. Computer applications, solid modeling, introduction to programming, and introduction to aerospace engineering program and curriculum; outside speakers; project involving design and construction of small RC aircraft. (Formerly 4900:165)

**AESE:166 Aerospace Systems Project Management (1 Credit)**

Prerequisite: AESE 165. Teamwork and project planning; semester project involving continuation of design and construction of small RC aircraft in conjunction with SAE Aero Design. (Formerly 4900:166)

**AESE:240 Aerospace Systems Engineering I (3 Credits)**

Prerequisite: MATH 223. An introductory systems course focusing on systems thinking, systems engineering tools, reliability, life-cycle analysis and statistics. (Formerly 4900:240)

**AESE:320 Aerospace Systems Engineering II (3 Credits)**

Prerequisites: MECE 360, AESE 240 and full admission to an engineering program in the College of Engineering and Polymer Science. An extended study of systems topics including linear programming, optimization, decision making, critical path scheduling, and verification. (Formerly 4900:320)

**AESE:336 Aerospace Structures (3 Credits)**

Prerequisites: CIVE 202, MATH 335. Basic theory and methods for analysis and design of aerostructures are covered. Topics include torsion, shear flow, buckling, fracture, and fatigue of beams and plates. (Formerly 4900:336)

**AESE:340 Avionics I (3 Credits)**

Prerequisites: ELEN 307 and admission to an engineering major within the College of Engineering and Polymer Science. Electronics for aircraft applications. Amplifiers, filters, regulators, current sources, buffers, sensor and actuator circuits, transmitters, and receivers. (Formerly 4900:340)

**AESE:380 Aerospace Materials (3 Credits)**

Prerequisites: CHEM 151, CHEM 152, CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Theory in science and application of materials for aerospace structures, macroscopic behavior of materials, order and disorder in mechanical behavior, evaluating and quantifying mechanical response. (Formerly 4900:380)

**AESE:420 Object Oriented Design & Management (3 Credits)**

Prerequisites: AESE 320 and admission to an engineering major within the College of Engineering and Polymer Science. An introduction to the area of object-oriented design and management of systems, including abstraction, inheritance, polymorphism, dynamic interactions, hierarchies, patterns, reflection, and distributed objects. (Formerly 4900:420)

**AESE:440 Avionics II (3 Credits)**

Prerequisites: AESE 340 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: MECE 412. Communication and control for aircraft applications. Fourier analysis, AM and FM principles, modulators demodulators, communication systems. aircraft system dynamics, classical control system principles and applications. (Formerly 4900:440)

**AESE:450 Aerospace Computations (3 Credits)**

Prerequisites: CIVE 202, MECE 315, MECE 360, MECE 411 and admission to an engineering major within the College of Engineering and Polymer Science or permission of instructor. Introduction to finite element and finite volume methods in aerospace engineering; fundamental principles of FEM and FVM discussed and illustrated through structural, and aerodynamic applications. (Formerly 4900:450)

**AESE:460 Aerospace Systems Manufacturing (3 Credits)**

Prerequisites: MECE 360 or equivalent and admission to an engineering major within the College of Engineering and Polymer Science or permission of instructor. Using computer systems to assist in creation, modification, analysis, or optimization of engineering designs, planning, management and control of manufacturing, CAD software with manufacturing applications. (Formerly 4900:460)

**AESE:490 Aerospace Design Project (2 Credits)**

Prerequisites: Senior standing and admission to an engineering major within the College of Engineering and Polymer Science or permission. Detailed senior design project. Design, feasibility and cost analysis, final design and implementation; engine, airframe and aerodynamic testing. (Formerly 4900:490)

**Gen Ed:** - Complex Issues Facing Society

**AESE:491 Aerospace Design Project I (1 Credit)**

Prerequisites: Senior standing and admission into the Aerospace Systems Engineering program. Preliminary senior design project including the design proposal, feasibility, cost analysis and preliminary design. (Formerly 4900:491)

**Gen Ed:** - Capstone

**AESE:492 Aerospace Design Project II (2 Credits)**

Prerequisite: AESE 491. Detailed senior design project. Final design, testing and implementation (Formerly 4900:492)

**AESE:497 Aerospace Honors Project (2 Credits)**

Prerequisite: Senior standing in Honors College or permission. Individual creative project in Aerospace Systems, supervised by faculty member of the department. Includes design, feasibility and cost analysis, final design and implementation. (Formerly 4900:497)

**Gen Ed:** - Complex Issues Facing Society

## Allied Health (ANAT)

**ANAT:206 Applied Human Anatomy & Physiology I (3 Credits)**

This course is designed to familiarize students to the structure, function, and physiology of the human body. Topics covered include organization of the body, chemistry, cells, tissues, integumentary system, the skeletal, articulations, muscular system, respiratory system, blood, and cardiovascular system. (Formerly 2780:206)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**ANAT:207 Applied Human Anatomy & Physiology II (3 Credits)**

This course is designed to familiarize students the structure, function, and physiology of the human body. This course is the second portion of a two part course. Topics covered include the following body systems: nervous system, senses, endocrine system, lymphatic system, immune system, digestive system, urinary system, male reproductive system, female reproductive, and life span development. (Formerly 2780:207)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**ANAT:210 Applied Human Anatomy & Physiology Lab I (1 Credit)**

Pre/Corequisite: ANAT 206. This course is an adjunct to the lecture of the structure and function of the human body. This course will be hands on learning to assist in the understanding of anatomy and physiology. Topics covered include organization of the body, chemistry, cells, tissues, skeletal system, muscular system, hematology, cardiovascular, and respiratory systems (Formerly 2780:210)

**Gen Ed:** - Natural Science w/LAB

**ANAT:211 Applied Human Anatomy & Physiology Lab II (1 Credit)**

Pre/Corequisite: ANAT 207. This course is an adjunct course of an introduction to the structure and function of the human body. This course will be hands on learning to assist in the learning of anatomy and physiology. Topics covered include the following body systems; nervous, senses, endocrine, digestive, urinary, reproductive, lymphatic, and human development. (Formerly 2780:211)

**Gen Ed:** - Natural Science w/LAB

**ANAT:290 Special Topics: Allied Health (1-2 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in allied health. (May be repeated for a total of four credits) (Formerly 2780:290)

# Allied Healthcare Administration (BAHA)

## **BAHA:120 Medical Terminology (3 Credits)**

Medical Terminology includes the study of medical prefixes, suffixes, word roots, combining forms, and with an emphasis on pronunciation, spelling, and abbreviations. Medical Terminology related to the body systems will be emphasized. The purpose of the course is to equip the student with a basic understanding of the tools needed to learn medical terminology as it relates to the body systems with an emphasis on spelling and pronunciation. (Formerly 2750:120)

## **BAHA:121 Study of Disease Processes (3 Credits)**

This course studies human disease and the disease process including treatments, causes, incidence, signs and symptoms, and diagnosis. (Formerly 2750:121)

## **BAHA:122 Emergency Responder I (1 Credit)**

Theory and practice in recognition and response to emergencies by the medical professional including but not limited to: breathing difficulty, cardiac arrest, heart attack, stroke, bleeding, wound care, musculoskeletal injuries, burns, poisonings, heat and cold exposure, and diabetic care. (Formerly 2750:122)

## **BAHA:200 Health Record Content (3 Credits)**

Introduction to the contents and design of health records (paper and electronic) and discussion of how clinical documentation facilitates the function of the delivery system. (Formerly 2750:200)

## **BAHA:226 Healthcare Statistics and Registries (3 Credits)**

Prerequisites: 2030:130 and CISS 105. This course covers computations of routine healthcare institutional statistics, the presentation and interpretation of healthcare data, and the use of disease and procedural registries. (Formerly 2750:226)

## **BAHA:227 Basic Procedural Coding (3 Credits)**

Prerequisite: BAHA 120. Class focuses on converting the procedural language into industry standard character strings for purposes of reimbursement CPT and HCPCS codes; learning how to convert procedural statements into CPT and HCPCS codes; learning how to apply carrier rules for reimbursement. (Formerly 2750:227)

## **BAHA:229 Basic Diagnostic Coding (3 Credits)**

Prerequisite: BAHA 120. This class focuses on converting the diagnostic language into industry standard character strings ICD-10-CM for purposes of reporting, research, and reimbursement. (Formerly 2750:229)

## **BAHA:230 Basic Pharmacology (3 Credits)**

This course is an introduction to pharmacology, organized and presented by therapeutic classification. Topics will include pharmacokinetics, factors which influence drug actions, routes or administration, and adverse effects. (Formerly 2750:230)

## **BAHA:302 Clinical Information Systems (3 Credits)**

Discussion of clinical systems including history of EHR and EMR, the theories behind systems, implementation, evaluation pathways, "Meaningful Use" and the architecture in different settings. (Formerly 2750:302)

## **BAHA:303 Advanced Coding II (3 Credits)**

Prerequisites: BAHA 227 and BAHA 229. Through case studies, the class is intended to prepare the student for either the AAPC CPC or the AHIMA CCS-P certification exam. (Formerly 2750:303)

## **BAHA:304 Healthcare Management Foundations (3 Credits)**

This course focuses on the circumstances unique to the health care industry management as manifested by patient privacy, outsourcing, and telecommunications. (Formerly 2750:304)

## **BAHA:328 Medical Insurance (3 Credits)**

Prerequisites: BAHA 120, BAHA 227, and BAHA 229. This course examines the nature of medical insurance reimbursement for medical services. Students will be equipped with an understanding of insurance and reimbursement methodologies. (Formerly 2750:328)

## **BAHA:331 Advanced Coding I (3 Credits)**

Prerequisites: BAHA 120, BAHA 227, and BAHA 229. An advanced coding course that builds on the CPT and HCPCS codes sets and the ICD-10-CM code set and introduces a series of detailed management topics related to coding. (Formerly 2750:331)

## **BAHA:336 Legal Concepts of Healthcare (3 Credits)**

Study of legal principles related to patient care and patient records. (Formerly 2750:336)

## **BAHA:350 Coding Practicum (3 Credits)**

Prerequisites: BAHA 227, BAHA 229, BAHA 303, and BAHA 331. The coding practicum course provides professional experience in an approved site under the direction of a coding or HIM faculty member and an onsite coordinator. (Formerly 2750:350)

## **BAHA:401 Management Information Systems (3 Credits)**

This senior level course focuses on the management of HIM through case studies and textbook work. (Formerly 2750:401)

## **BAHA:402 Quality Management in Healthcare (3 Credits)**

Prerequisites: BAHA 200 and BAHA 328 or permission. An introduction of the methods used to define, implement, and monitor total quality management in health care. (Formerly 2750:402)

## **BAHA:410 Healthcare Research (3 Credits)**

Prerequisites: ENGL 222 and STAT 260. Through review of research, HIM students in this class will learn how to support clinicians' data needs while research is conducted. (Formerly 2750:410)

## **BAHA:411 Healthcare Finance (3 Credits)**

Prerequisites: [COMM 211 or ACCT 201], BAHA 227, BAHA 229 and BAHA 328. Integration of principles learned in accounting, coding, and insurance prerequisites into an exploration of financial management in the sector of the economy that is healthcare. (Formerly 2750:411)

## **BAHA:412 Current Topics in HIM (3 Credits)**

Prerequisites: BAHA 200, BAHA 302, BAHA 303, BAHA 304, BAHA 331, BAHA 336, BAHA 402, and BAHA 411. Concepts of HIM are integrated and applied through the analysis of case studies and the completion of a capstone project. (Formerly 2750:412)

## **BAHA:420 HIM Capstone (4 Credits)**

Prerequisites: BAHA 200, BAHA 226, BAHA 302, BAHA 303, BAHA 304, BAHA 331, BAHA 336, BAHA 402, and BAHA 411. This course prepares senior HIM students for the Registered Health Information Administrator (RHIA) national certification examination. (Formerly 2750:420)

## **BAHA:450 HIM Practicum (3 Credits)**

Prerequisites: BAHA 200, BAHA 302, BAHA 303, BAHA 304, BAHA 331, BAHA 336, BAHA 402, and BAHA:411. The HIM practicum course provides professional experience in an approved site under the direction of a coding or HIM faculty member and an onsite coordinator. (Formerly 2750:450)

# Anthropology (ANTH)

## ANTH:101 Human Cultures (3 Credits)

This course examines what culture is, how human cultures vary and how they change. We then explore opportunities/conflicts presented by contemporary human cultural issues. (Formerly 3230:150)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Global Diversity

## ANTH:105 Human Evolution (4 Credits)

Study of biological evolution of Homo Sapiens, including primate comparisons and cultural development. One-hour laboratory using interactive computer programs, casts and Anthropology's cultural collection. (Formerly 3230:151)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

## ANTH:110 Introduction to Archaeology (3 Credits)

Introduction to the study of ancient cultures based on material remains. Course covers basic archaeological concepts and tools, types of data and interpretation. (Formerly 3240:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

## ANTH:251 Human Diversity (3 Credits)

This course examines human diversity in global perspective by considering how and why human beings vary physically and ways categories of difference are culturally constructed. (Formerly 3230:251)

**Gen Ed:** - Social Science; - Global Diversity

## ANTH:300 Historical Archaeology (3 Credits)

This course explores recent developments in historical archaeology and how material culture can be used to study race, class, gender, and ethnic identities. (Formerly 3240:300)

## ANTH:309 Medicine & the Humanities (3 Credits)

Medical history, literature, and ethics from the perspective of the Humanities, with readings from original sources and literary works on medical subjects. (Formerly 3230:309)

## ANTH:310 Human Paleontology: The Australopithecines (3 Credits)

Prerequisite: ANTH 105. A study of the fossil record of the earliest hominids of the Miocene and Pliocene epochs. (Formerly 3230:310)

## ANTH:311 Human Paleontology: Genus Homo (3 Credits)

Prerequisite: ANTH 105. The origins of the Genus Homo and the evolution of anatomically modern Homo sapiens. (Formerly 3230:311)

## ANTH:313 Archaeology of Greece (3 Credits)

The ruins and monuments of Greece; history reconstructed by examination of the material remains. No foreign language necessary. (Formerly 3240:313)

## ANTH:314 Archaeology of Rome (3 Credits)

The ruins and monuments of Rome; history reconstructed by examination of the material remains. No foreign language necessary. (Formerly 3240:314)

## ANTH:315 Human Variation and Health (3 Credits)

Human Variation and Health explores the global genetic and phenotypic diversity of modern humans. This course focuses on how natural selection has shaped global human diversity, how biocultural evolution has impacted humans, and how genetics and diseases are related. (Formerly 3230:315)

## ANTH:320 The Anthropology of Food (3 Credits)

Utilizing anthropological approaches and theories, this course explores the social relations and cultural beliefs associated with food cross-culturally. (Formerly 3230:420)

**Gen Ed:** - Complex Issues Facing Society

## ANTH:340 Archaeology of Ohio (3 Credits)

Provides a detailed overview of Ohio's prehistoric cultures and the early historic period focusing on cultural evolution and environmental relationships. (Formerly 3240:420)

## ANTH:345 Egyptology (3 Credits)

Introduction to ancient Egyptian civilization, with emphasis on sites and artifacts representative of socio-political and ideological transformations from the Prehistoric through Ptolemaic Periods. (Formerly 3240:345)

## ANTH:357 Magic, Myth, & Religion (3 Credits)

Analysis of the origins, roles, and functions of myth, magic and religion in a broad range of societies, with emphasis on the non-Western, pre-industrial societies. (Formerly 3230:357)

## ANTH:358 Indians of North America (3 Credits)

Ethnographic survey of native cultures of North America, with emphasis on variations in ecological adaptations, social organization and modern American Indians in anthropological perspective. Lecture. (Formerly 3230:358)

**Gen Ed:** - Domestic Diversity

## ANTH:360 Ancient Near Eastern Archaeology (3 Credits)

General survey of the archaeological material culture and written history of the ancient Near East. Covers principal human achievements from the Paleolithic to Alexander's conquest. (Formerly 3240:360)

## ANTH:365 Ancient Metallurgy (3 Credits)

Metallurgy was a transformative technology for ancient societies. This class covers archaeological evidence for the early use of metals and their alloys. We will also discuss: (1) the structural and physical properties of metals; (2) the analytical techniques used to assess metals in materials science; (3) current archaeological explanations for how people used metal to fashion artifacts; and (4) the impact of metallurgy on different ancient cultures. This course is a mixed lecture, seminar, and laboratory course. (Formerly 3240:365)

## ANTH:368 Neolithic Revolution (3 Credits)

Examination of the archaeological, zooarchaeological, paleobotanical, bioarchaeological, and genetic evidence for the earliest human manipulation and domestication of plants and animals. Evaluation of theoretical models for the origins of agriculture and the long-term implications of its adoption for human societies. (Formerly 3240:368)

## ANTH:370 Globalization and Culture (3 Credits)

Prerequisite: [ANTH 101 or SOCIO 100]. A critical examination of socio-cultural processes of globalization that serve to complicate conventional notions of culture. Emphasizes how globalization affects a range of local places. (Formerly 3230:370)

**Gen Ed:** - Complex Issues Facing Society

## ANTH:381 History of Physical Anthropology (3 Credits)

Prerequisite: ANTH 105. History of evolutionary theory pertaining to the biological origins of humans covering pre-Darwinian thought to the most recent fossil discoveries. (Formerly 3230:401)

## ANTH:382 Evolution and Human Behavior (3 Credits)

Prerequisite: ANTH 105. Critical examination of the theory of natural selection and its usefulness for understanding the origins and evolution of early hominid and modern human social behavior. (Formerly 3230:410)

**ANTH:400 Introduction to Anthropological Data (3 Credits)**

Prerequisite: ANTH 101, ANTH 105 and ANTH 110. This course focuses on the characteristics of anthropological evidence through hands-on activities and examination of the uses of data in published works. (Formerly 3230:398)

**ANTH:404 Primates: Behavior, Morphology and Evolution (3 Credits)**

Prerequisite: ANTH 105. Extant primate diversity, behavior, morphology and primate paleontology. (Formerly 3230:304)

**ANTH:405 Anthropological Theory (3 Credits)**

Prerequisites: ANTH 101 and ANTH 105. Advanced seminar addressing the history of anthropological theory and current theoretical debates within the discipline. (Formerly 3230:359)

**ANTH:407 Archaeological Theory (3 Credits)**

Prerequisite: ANTH 110. Advanced seminar covering history of scientific archaeological exploration, major theoretical paradigms and current trends in archaeology. Required for Certificate in Field Archaeology. (Formerly 3240:400)

**ANTH:410 Archaeogeophysical Survey (3 Credits)**

Prerequisite: [ANTH 110 or GEOL 101 or GEOL 310]. Advanced instruction in principles of subsurface geophysical survey techniques in archaeology. Emphasizes magnetic gradiometry and electrical resistivity techniques. Includes both laboratory and fieldwork. (Formerly 3240:410)

**ANTH:416 Anthropology of Sex and Gender (3 Credits)**

Prerequisites: ANTH 101 or SOCIO 100. This course explores cross-cultural variation regarding sex, gender and sexuality. It examines the ways that cultures create, maintain and reproduce gender concepts and gender relations. (Formerly 3230:416)

**Gen Ed:** - Global Diversity

**ANTH:425 Human Osteology (3 Credits)**

Prerequisite: ANTH 105. An intensive study of bone, bone growth, and the human skeleton; ageing and sexing techniques; application of demographic techniques to paleoanthropological populations. (Formerly 3230:340)

**ANTH:430 Seminar: Human Origins (3 Credits)**

Prerequisite: ANTH 105. Advanced seminar addressing current discoveries and theoretical issues in human paleontology. Content varies by semester. (Formerly 3230:400)

**ANTH:440 Archaeological Laboratory Methods (3 Credits)**

Prerequisite: ANTH 110. Laboratory processing and study of lithic, ceramic, paleofaunal, paleobotanical, metallic, archaeological materials. Emphasis varies with instructor expertise. Involves instrumental or statistical analysis. (Formerly 3240:440)

**ANTH:450 Archaeological Field School (1-6 Credits)**

Prerequisite: ANTH 110 or permission. A field-based course teaching based archaeological techniques, mapping, excavation of prehistoric and historic sites, survey and documentation. (May be repeated for a maximum of 6 credits.) (Formerly 3240:450)

**ANTH:455 Archaeological Field Experience (1-6 Credits)**

Prerequisite: ANTH 110 or permission of instructor. This course provides students opportunities to participate in archaeological fieldwork in collaboration with academic, community, law enforcement, industry, and non-profit partners. (Formerly 3240:455)

**ANTH:457 Medical Anthropology (3 Credits)**

Prerequisite: ANTH 101 or permission of instructor. Analyzes various aspects of Western and non-Western medical systems from an anthropological perspective. Compares traditional medical systems around the world. (Formerly 3230:457)

**Gen Ed:** - Complex Issues Facing Society

**ANTH:460 Field Methods in Cultural Anthropology (4 Credits)**

Prerequisite: ANTH 101 or permission of instructor. Community-based research and service-learning course in which students design and undertake a project. Addresses ethics, data collection, management and analysis in collaboration with community partners. (Formerly 3230:460)

**Gen Ed:** - Complex Issues Facing Society

**ANTH:472 Special Topics: Anthropology (3 Credits)**

(May be repeated) Prerequisite: ANTH 101. Selected topics in anthropology. May include field schools, independent or faculty-led research, laboratory training or advanced course work not regularly offered by department. (Formerly 3230:472)

**ANTH:490 Anthropological Research (1-3 Credits)**

(May be repeated) Individual study of problem areas of specific interest to an individual student under guidance of a faculty member. (Formerly 3230:397)

**ANTH:497 Senior Honors Project in Anthropology (3 Credits)**

The topic and scope of this individually chosen project is directed by an Anthropology faculty member in conjunction with Honors College preceptors under the guidelines of the Honors College. (Formerly 3230:497)

## Applied Music (MUSAP)

**MUSAP:21 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 21)

**MUSAP:22 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 22)

**MUSAP:23 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 23)







**MUSAP:66 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 66)

**MUSAP:67 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 67)

**MUSAP:68 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 68)

**MUSAP:69 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. Prerequisite: Permission of applied instructor. For students whose performance skills are not sufficient for placement at the 100 level or for elective credit in non-music programs. No credit toward any major in music. A fee is charged in addition to regular tuition. (Formerly 7520: 69)

**MUSAP:121 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:121)

**MUSAP:122 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:122)

**MUSAP:123 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:123)

**MUSAP:124 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:124)

**MUSAP:125 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:125)

**MUSAP:126 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:126)

**MUSAP:127 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:127)

**MUSAP:128 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:128)

**MUSAP:129 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:129)

**MUSAP:130 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:130)

**MUSAP:131 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:131)

**MUSAP:132 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:132)

**MUSAP:133 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:133)

**MUSAP:134 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:134)

**MUSAP:135 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:135)

**MUSAP:136 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:136)

**MUSAP:137 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:137)

**MUSAP:138 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:138)

**MUSAP:139 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:139)

**MUSAP:140 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:140)

**MUSAP:141 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:141)

**MUSAP:142 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated) (Formerly 7520:142)

**MUSAP:161 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:161)

**MUSAP:162 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:162)

**MUSAP:163 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:163)

**MUSAP:164 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:164)

**MUSAP:165 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:165)

**MUSAP:166 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:166)

**MUSAP:167 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:167)

**MUSAP:168 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:168)

**MUSAP:169 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:169)

**MUSAP:221 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:221)

**MUSAP:222 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:222)

**MUSAP:223 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:223)

**MUSAP:224 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:223)

**MUSAP:225 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:224)

**MUSAP:226 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:226)

**MUSAP:227 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:227)

**MUSAP:228 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:228)

**MUSAP:229 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:229)

**MUSAP:230 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:230)

**MUSAP:231 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:231)

**MUSAP:232 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:232)

**MUSAP:233 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:233)

**MUSAP:234 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:234)

**MUSAP:235 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:235)

**MUSAP:236 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:236)

**MUSAP:237 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:237)

**MUSAP:238 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:238)

**MUSAP:239 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:239)

**MUSAP:240 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:240)

**MUSAP:241 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:241)

**MUSAP:242 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music, MUSIC 252 and permission of instructor; 7500:452 recommended. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated) Private instruction in composition. Primarily for student whose major is theory-composition. (Formerly 7520:242)

**MUSAP:261 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:261)

**MUSAP:262 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:262)

**MUSAP:263 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:263)

**MUSAP:264 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:264)

**MUSAP:265 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:265)

**MUSAP:266 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:266)

**MUSAP:267 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:267)

**MUSAP:268 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:268)



**MUSAP:269 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:269)

**MUSAP:321 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:321)

**MUSAP:322 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:322)

**MUSAP:323 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:323)

**MUSAP:324 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:324)

**MUSAP:325 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:325)

**MUSAP:326 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:326)

**MUSAP:327 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:327)

**MUSAP:328 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:328)

**MUSAP:329 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:329)

**MUSAP:330 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:330)

**MUSAP:331 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:331)

**MUSAP:332 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:332)

**MUSAP:333 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:333)

**MUSAP:334 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:334)

**MUSAP:335 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:335)

**MUSAP:336 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:336)

**MUSAP:337 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:337)

**MUSAP:338 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:338)

**MUSAP:339 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:339)

**MUSAP:340 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:340)

**MUSAP:341 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:341)

**MUSAP:342 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music, MUSIC 252 and permission of instructor; 7500:452 recommended. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated). Private instruction in composition. Primarily for student whose major is theory-composition. (Formerly 7520:342)

**MUSAP:361 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:361)

**MUSAP:362 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:362)

**MUSAP:363 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:363)

**MUSAP:364 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:364)

**MUSAP:365 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:365)

**MUSAP:366 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:366)

**MUSAP:367 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:367)

**MUSAP:368 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:368)

**MUSAP:369 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:369)

**MUSAP:421 Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:421)

**MUSAP:422 Classical Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:422)

**MUSAP:423 Harp (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:423)

**MUSAP:424 Voice (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:424)

**MUSAP:425 Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:425)

**MUSAP:426 Organ (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:426)

**MUSAP:427 Violin (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:427)

**MUSAP:428 Viola (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:428)

**MUSAP:429 Cello (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:429)

**MUSAP:430 String Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:430)

**MUSAP:431 Trumpet or Cornet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:431)

**MUSAP:432 French Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:432)

**MUSAP:433 Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:433)

**MUSAP:434 Baritone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:434)

**MUSAP:435 Tuba (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:435)

**MUSAP:436 Flute or Piccolo (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:436)

**MUSAP:437 Oboe or English Horn (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:437)

**MUSAP:438 Clarinet or Bass Clarinet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:438)

**MUSAP:439 Bassoon or Contrabassoon (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:439)

**MUSAP:440 Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:440)

**MUSAP:441 Harpsichord (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:441)

**MUSAP:442 Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (May be repeated) Prerequisites: MUSIC 252 and permission of instructor; 7500:452 recommended. Private instruction in composition. Primarily for student whose major is theory-composition. (Formerly 7520:442)

**MUSAP:461 Jazz Percussion (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:461)

**MUSAP:462 Jazz Guitar (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:462)

**MUSAP:463 Jazz Electric Bass (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:463)

**MUSAP:464 Jazz Piano (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:464)

**MUSAP:465 Jazz Trumpet (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:465)

**MUSAP:466 Jazz Trombone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:466)

**MUSAP:467 Jazz Saxophone (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:467)

**MUSAP:468 Jazz Composition (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:468)

**MUSAP:469 Jazz Vocal Styles (2-4 Credits)**

Prerequisite: Placement audition in the School of Music. Individual instruction in vocal or instrumental performance. Two credits represent one half-hour lesson per week; four credits represent an hour lesson. Enrollment may be repeated each semester for credit. A fee is charged in addition to regular tuition. The following courses are intended for a student majoring in one of the programs in the School of Music. Course levels correspond approximately to class standing (100 for freshman, 200 for sophomore, etc.) A student may progress up one level by successfully completing an applied music jury, usually offered in the spring semester. NOTE: No more than eight credits at the 100, 200 or 300 level may apply in music degree programs; no such limit exists for the 400 level. (Formerly 7520:469)

## Arabic (ARAB)

**ARAB:101 Beginning Arabic I (4 Credits)**

Sequential. Acquisition of basic speaking, listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3501:101)

**ARAB:102 Beginning Arabic II (4 Credits)**

Sequential. Prerequisite: ARAB 101 or equivalent. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3501:102)

**ARAB:201 Intermediate Arabic I (4 Credits)**

Sequential. Prerequisite: ARAB 102 or equivalent. Continuing acquisition of competence in speaking, listening comprehension, reading and writing through use of culturally authentic materials, with emphasis on developing accuracy and self-expression. (Conducted in Arabic). (Formerly 3501:201)



**ARAB:202 Intermediate Arabic II (4 Credits)**

Sequential. Prerequisite: ARAB 201 or equivalent. Continuing acquisition of competence in speaking, listening comprehension, reading and writing through use of culturally authentic materials, with emphasis on developing accuracy and self-expression. (Conducted in Arabic). (Formerly 3501:202)

**ARAB:210 Arabic Culture through Film (3 Credits)**

Prerequisites: 32 credit hours including English Composition I and II [ENGL 111 and ENGL 112] or equivalent. Exploration of Arabic culture through viewing of films subtitled in English. Readings and discussions in English. Does not count toward minor in Arabic. (Formerly 3501:210)  
**Gen Ed:** - Humanities

**ARAB:301 Composition and Conversation (4 Credits)**

Prerequisite: ARAB 202 or equivalent. Further development of language skills acquired at the intermediate level: Writing, Speaking, Listening Comprehension and Reading. (Conducted in Arabic). (Formerly 3501:301)

**ARAB:302 Arabic Media (4 Credits)**

Prerequisite: ARAB 202 or equivalent. Further development of practical language skills with a focus on Arabic media. The course also will enrich students understanding of Arabic culture. (Conducted in Arabic). (Formerly 3501:302)

**ARAB:303 Introduction to Modern Arabic Literature (4 Credits)**

Prerequisite: ARAB 202 or equivalent. Enhancement of students' communicative skills with emphasis on development of the ability to read, appreciate and discuss Modern Arabic Literature. (Conducted in Arabic). (Formerly 3501:303)

**ARAB:304 Cultural Readings in Arabic (4 Credits)**

Prerequisite: ARAB 202 or equivalent. Enhancement of communicative skills in Arabic with a focus on development of the ability to read, appreciate and discuss Arabic writing. (Conducted in Arabic). (Formerly 3501:304)

**ARAB:311 Arabic Cultural Experience Abroad (1-8 Credits)**

Prerequisite: Permission of Department Chair. Residence and study abroad in an Arabic-speaking country. May be repeated once with different content. Only 8 credits allowable for minor in Arabic. (Formerly 3501:311)

**ARAB:422 Special Topics in Arabic (1-4 Credits)**

Prerequisite: Two of the group of [ARAB 301, ARAB 302, ARAB 303, ARAB 304] or permission of instructor. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Conducted in Arabic.) (May be repeated once with different topic for a maximum total of 8 credits.) (Formerly 3501:422)

**ARAB:497 Individual Reading in Arabic (1-4 Credits)**

Prerequisite: ARAB 202 and permission of the instructor and department chair. Individual study under the guidance of professor. May be repeated once with departmental permission for a total of 8 credits. (Formerly 3501:497)

## Art - Myers School of (ART)

**ART:100 Arts Orientation (0 Credits)**

Corequisite: with first ART course. Orientation to the information and strategies necessary to aid new art students in their understanding of the field of art. (Formerly 7100:103)

**ART:101 Survey of Global Art 1: Prehistory to 1250 CE (3 Credits)**

Prerequisite: ENGL 110 or ENGL 111. Introductory survey of world art from prehistory to c.1250 C.E. (Formerly 7100:100)

**Gen Ed:** - Arts; - Global Diversity

**ART:102 History of Global Art 2: 1250 CE - 1850 CE (3 Credits)**

Prerequisite: ART 101. A survey of developments in art and culture across the globe from the Gothic period to the mid-nineteenth century (1250-1850 CE). (Formerly 7100:101)

**Gen Ed:** - Arts

**ART:103 History of Global Art 3: 1850 CE - Today (3 Credits)**

Prerequisite: ART 102 or permission of instructor. The third component in a 3-part series of introductory art history courses, this class covers the modern era, from Realism, Impressionism, and the Pre-Raphaelites through the present moment. (Formerly 7100:102)

**ART:104 Visual Arts Application in the Elementary Classroom (3 Credits)**

Exploration of methods, materials, processes and visual techniques relating two- and three-dimensional art experiences for the teacher of elementary children. No credit as an elective course for art majors. (Formerly 7100:104)

**ART:105 Introduction to Art Education (3 Credits)**

An introduction to becoming Artist as Teacher in traditional school based and non-traditional community based settings. 10 hours field experience required. (Formerly 7100:105)

**ART:110 Introduction to New Media (3 Credits)**

Students learn state of the art knowledge and activities of New Media. This course will be in addition or cross-listed with the NMED 100 course. (Formerly 7100:110)

**ART:111 Emerging Technologies (3 Credits)**

This course provides a hands on introductory exploration of several technologies currently being used by the creative areas of Art and Design. (Formerly 7100:111)

**ART:131 Foundation Drawing I (3 Credits)**

Corequisite: ART 100. Introduction to drawing materials and techniques with an emphasis on observation, representation, and formal principles of composition and design. (Formerly 7100:131)

**ART:132 Introduction to Design (3 Credits)**

An introductory graphic design course focusing on teaching the principles and elements of design through theory and practice. (Formerly 7100:132)

**ART:144 Foundation 2D Design (3 Credits)**

Fundamental information about the theory and practice of visual design as applied to surfaces, including composition, color and pictorial illusions with lecture and studio experience. (Formerly 7100:144)

**ART:145 Foundation 3D Design (3 Credits)**

Introduction to meaning of "design" and act of designing in real space. Study of naturally occurring form, structure and process. (Formerly 7100:145)

**ART:184 Typography I (3 Credits)**

Prerequisite: ART 132. Studio experience in concept development and processes, tools and materials of graphic designers. Elementary design problems in graphic design. (Formerly 7100:184)

**ART:189 Production I (3 Credits)**

An introduction to graphic design industry standard software and hardware. Students learn proper development procedures for creating production-ready, professional digital files. (Formerly 7100:189)

**ART:210 Visual Arts Awareness (3 Credits)**

Prerequisite: ENGL 110 or ENGL 111. Lecture course providing appreciation and understanding of arts of various types/periods with emphasis on topics and influences on societies, rather than historical sequence (Formerly 7100:210)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Arts

**ART:213 Introduction to Printmaking (3 Credits)**

Prerequisite: ART 131 or ART 144. A fast-paced introduction to traditional and contemporary high-tech/low-tech printmaking processes including relief, intaglio, lithography, and screenprint as well as digital printmaking. (Formerly 7100:213)

**ART:214 Relief/Screenprint (3 Credits)**

Prerequisite: ART 213. An introduction to the history, process, and contemporary practice of relief printing and screenprinting. (Formerly 7100:214)

**ART:216 Intaglio/Lithography (3 Credits)**

Prerequisite: ART 213. An introduction to the history, process, and contemporary practice of intaglio and lithographic printing. (Formerly 7100:216)

**ART:222 Introduction to Sculpture (3 Credits)**

Prerequisite: ART 145. Exploration of aesthetic factors influencing sculptural statements. Development of proficiency in the use of tools, materials and techniques. (Formerly 7100:222)

**ART:223 Sculpture: Stone (3 Credits)**

Prerequisite: ART 222. Beginning level lecture and studio course using both traditional hand tools for the creation of stone sculpture. History of the use of stone, evolution of stone working technology and contemporary artists working with stone. (Formerly 7100:223)

**ART:233 Introduction to Life Drawing (3 Credits)**

Prerequisite: ART 131. Perceptual problems in drawing from the life model. Study of skeletal, muscular, mechanical nature of human figure and application of this knowledge to the resolution of aesthetic problems. (Formerly 7100:233)

**ART:234 Anatomy for Artists (3 Credits)**

Prerequisite: ART 233. Studio/lecture experience in drawing and sculpture with an emphasis on human skeletal, muscular, and surface structure. (Formerly 7100:234)

**ART:243 Introduction to Painting (3 Credits)**

Prerequisite: ART 131. Study of aesthetic and technical problems involved in painting. Emphasis on painting from observation, and understanding of color in painting. (Formerly 7100:243)

**ART:244 Color Concepts (3 Credits)**

Prerequisites: ART 131 and ART 144. Lecture and studio experience giving information concerning perception of color, additive color phenomena of light, subtractive color phenomena of pigments and dyes, color notation systems and psychological effects of color. (Formerly 7100:244)

**ART:246 Introduction to Water-based Media (3 Credits)**

Prerequisites: ART 131 and ART 144. Experimentation with water-based media such as tempera, acrylic, and gouache. (Formerly 7100:246)

**ART:250 Foundation Lecture (1 Credit)**

Prerequisites: ART 131, ART 144, and ART 145. Corequisite: ART 252. Lecture is designed to broaden students' knowledge by including investigations into materials and technologies to synthesize an understanding in the visual arts. (Formerly 7100:250)

**ART:251 Watercolor (3 Credits)**

Prerequisites: ART 131 and ART 144. Students will investigate traditional and contemporary watercolor techniques and mixed media while addressing issues of composition and conceptual concerns. (Formerly 7100:251)

**ART:252 Foundation Studio (2 Credits)**

Prerequisites: ART 131, ART 144, and ART 145. Corequisite: ART 250. Studio course addresses theory and application of 2D and 3D skills to the production of artworks in preparation of the foundation forum: lecture and review. Studio course houses the Foundation Review, which all students are required to participate in for advancement to upper level coursework. (Formerly 7100:252)

**ART:254 Introduction to Ceramics (3 Credits)**

Prerequisites: ART 131 and ART 144. Studio/lecture course exploring potentials of hand-building techniques in both sculptural and functional issues. Clay processing, glaze application and practical kiln firing. (Formerly 7100:254)

**ART:266 Introduction to Metalsmithing (3 Credits)**

Prerequisite: ART 144 and ART 145. Studio experience in which student is introduced to properties of metals, processes of silversmithing and design and production of jewelry. (Formerly 7100:266)

**ART:273 Introduction to Digital Photography (3 Credits)**

Prerequisites: ART 131 and ART 144; or permission. An introductory digital photography course covering technical, aesthetic and conceptual issues. Digital camera with manual exposure controls required. No credit for photography majors. (Formerly 7100:273)

**ART:274 Photography I for Non-Art Majors (3 Credits)**

Film-based black and white photography including camera control, film processing, and darkroom printing. 35mm camera with full manual control required. No credit toward art major. (Formerly 7100:274)

**ART:275 Introduction to Photography (3 Credits)**

Prerequisites: ART 131 and ART 144. Film-based black and white photography including camera control, film processing and darkroom printing. 35mm film camera with full manual control required. (Formerly 7100:275)

**ART:276 Introduction to Commercial Photography (3 Credits)**

Prerequisite: ART 273, ART 274, or ART 275. Students are introduced to studio and location lighting techniques and related software applications while working through a series of photographic projects. (Formerly 7100:276)

**ART:280 Digital Media (3 Credits)**

Prerequisite: ART 189. An exploration of contemporary digital image capture, manipulation, output and distribution, emphasizing digital image concepts, aesthetics and production. (Formerly 7100:280)

**ART:281 Web and Devices I (3 Credits)**

Prerequisite: ART 189. This course introduces the process of planning, designing and producing industry standard websites. Emphasis on front-end development and the creative aspect of web design. (May be repeated for a total of six credits.) (Formerly 7100:281)

**ART:283 Drawing Techniques (3 Credits)**

Prerequisites: ART 131 and ART 189. Includes advanced drawing and presentation techniques commonly used in graphic design. Various presentation and design problems will be encountered stressing use of selected drawing methods and processes. (Formerly 7100:283)

**ART:288 Typography II (3 Credits)**

Prerequisite: ART 184. Introduction to typographic design to communicate. Study of letterforms, history, comping skills, layout design and digital technology. (Formerly 7100:288)

**ART:300 Art Since 1945 (3 Credits)**

Prerequisite: [ART 102 and ART 103] or permission of instructor. Consideration of significant developments in visual art forms since World War II in architecture, sculpture, printing, photography, metal, textile, ceramics, printmaking and graphic design. (Formerly 7100:300)

**ART:301 Medieval Art (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Painting, mosaics, architecture, sculpture, and luxury arts of medieval Europe from 4th through 14th centuries. (Formerly 7100:301)

**ART:302 Art in Europe During the 17th-18th Centuries (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Analysis of major European examples of architecture, landscape design, painting, prints and sculpture from beginning of the 17th century until approximately 1850. (Formerly 7100:302)

**ART:303 Italian Renaissance Art (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Study of architecture, painting and sculpture of Italy during 13th through 16th centuries. (Formerly 7100:303)

**ART:306 Renaissance Art in Northern Europe (3 Credits)**

Prerequisite: ART 102 or permission of instructor. Painting, architecture, and sculpture of northern Europe from 14th through 16th centuries. (Formerly 7100:306)

**ART:307 History of Graphic Design (3 Credits)**

Prerequisite: ART 102 or permission of instructor. A lecture course analyzing the development of graphic design as an art form from Neolithic sources to the present. (Formerly 7100:307)

**ART:309 Greek Art (3 Credits)**

The course presents art and architecture of ancient Greeks, and focuses on major monuments, myths, rituals, socio-political constructs, and methodological issues associated with Greek art. (Formerly 7100:309)

**ART:310 Motion Design (3 Credits)**

Prerequisites: ART 280 and ART 288, or permission. Study of the history of moving images, principles of animation and motion graphics. Design in a non-linear environment, emphasis on narrative, video, type and image. (Formerly 7100:310)

**ART:311 UI/UX Design (3 Credits)**

Prerequisites: ART 280 and ART 288, or permission. Introduction to user interface and user experience design. Emphasis is on the design principles, type and image for screen design and the user experience. (Formerly 7100:311)

**ART:312 Roman Art & Architecture (3 Credits)**

Study of Roman art and architecture from the sixth century B.C.E. through the fourth century C.E. (Formerly 7100:312)

**ART:313 Survey of Asian Art (3 Credits)**

This course introduces the student to the historical, cultural, political, and religious aspects of civilization that influenced the aesthetics of Asian art. (Formerly 7100:313)

**ART:315 Ceramics for Non-Art Majors (3 Credits)**

Hand-building, glazing and kiln loading. Link skills to personal experience, ceramic history and contemporary art and craft issues. No credit toward a major in art. (Formerly 7100:253)

**ART:316 Biodesign (3 Credits)**

Prerequisite: Sophomore or greater standing or instructor permission. Biodesign combines an introduction into biomimicry/biomimetic design with a studio design exercise, using nature as a model for creating innovative solutions. (Formerly 7100:316)

**ART:317 Print Matrix (3 Credits)**

Prerequisites: ART 214 and ART 216. Intermediate printmaking class requiring the application of printmaking to the production of imagery for specific printmaking applications - Book Arts, Hybrid Prints, Serial Imagery, etc. (Formerly 7100:317)

**ART:318 Portrait Lighting (3 Credits)**

Prerequisite: ART 276. Studio and location lighting techniques for commercial and fine art portraiture. (Formerly 7100:318)

**ART:319 Printmaking Review (0 Credits)**

Prerequisite: ART 317. A committee of full-time faculty review portfolio of studio work completed in all printmaking courses. (Formerly 7100:319)

**ART:320 Product Photography (3 Credits)**

Prerequisite: ART 276. Professional skills are further developed via studio and tabletop photography assignments based on current trends in illustration and advertising photography. (Formerly 7100:320)

**ART:322 Sculpture II (3 Credits)**

Prerequisite: ART 222 or permission from instructor. Continuation of 222. Addresses more advanced techniques. May include fabrication, casting, carving, or assemblage. (May be repeated for a total of nine credits) (Formerly 7100:322)

**ART:323 Lost Wax Casting (3 Credits)**

Prerequisites: ART 222 or ART 266. Bronze and aluminum casting using the lost wax process. Students learn foundry techniques and apply them to individual artistic statements. (May be repeated for a total of six credits.) (Formerly 7100:323)

**ART:324 Installation Art (3 Credits)**

Prerequisite: ART 222. Lecture and studio course introducing the student to the medium of installation art, a major emphasis in the contemporary art scene. The history and evolution of installation art and its use by contemporary artists. (Formerly 7100:224)

**ART:330 New Media II (3 Credits)**

Prerequisite or Corequisite: ART 110 or ART 100. Students practice various New Media technologies. No prior art experience is required. This course will be in addition or cross-listed with the NMED 300 course (Formerly 7100:330)

**ART:335 Intermediate Life Drawing (3 Credits)**

Prerequisites: ART 233. Continued development of the content established in Life Drawing with additional emphasis on draped models, drawing materials and aesthetics. (May be repeated for a total of nine credits.) (Formerly 7100:335)

**ART:346 Intermediate Water-Based Media (3 Credits)**

Prerequisite: ART 246. Development of personal concepts and imagery through investigation of historical and contemporary styles, techniques, and issues. (May be repeated for six credits.) (Formerly 7100:346)

**ART:348 Intermediate Painting (3 Credits)**

Prerequisite: ART 243. Development of personal concepts and imagery through investigation of historical and contemporary styles and issues. (May be repeated for a total of six credits, but limited to a maximum of three credits in a given medium) (Formerly 7100:348)

**ART:350 Painting/Drawing Portfolio Review (0 Credits)**

Prerequisite: Two courses in ART 348 Intermediate Painting. A committee of full-time faculty review portfolio of student work completed in prerequisite courses. (Formerly 7100:350)

**ART:351 Intermediate Drawing (3 Credits)**

Prerequisite: ART 131. Investigation of a variety of strategies in contemporary drawing practices to strengthen observation, design, technique, and conceptual skills. Project based learning involving research, sketching, compositional design and development of a series of related work. (Formerly 7100:231)

**ART:353 Throwing (3 Credits)**

Prerequisite: ART 254. Emphasis on making pottery using the potter's wheel as well as organization and planning skills needed to make glazes and fire kilns. (Formerly 7100:353)

**ART:356 History of Craft (3 Credits)**

This course is designed to illuminate selected aspects of the history of the making of things as these apply to current practice in the crafts. (Formerly 7100:356)

**ART:365 Intermediate Jewelry (3 Credits)**

Prerequisite: ART 266. This class builds on acquired in Introduction to Metalsmithing. Emphasis will be placed on fine jewelry techniques including working with silver. (Formerly 7100:267)

**ART:366 Metalsmithing II (3 Credits)**

Prerequisite: ART 266. Continuation of experiences presented in 266 with further development of skills and expansion of technical knowledge. (May be repeated for a total of six credits) (Formerly 7100:366)

**ART:368 Color in Metals (3 Credits)**

Prerequisite: ART 266. Introduction to a variety of techniques to achieve and/or combine color in metals. Techniques such as anodizing aluminum, enameling and the application of color resins and plastics will be explored. (Formerly 7100:268)

**ART:369 Production for Jewelry (3 Credits)**

Prerequisite: ART 266. This class will investigate ways of producing artwork and jewelry in multiples and limited production runs. Attention will also be given to packaging, display, and marketing the work. (Formerly 7100:369)

**ART:370 History of Photography (3 Credits)**

Prerequisite: ART 103. A lecture course studying the history of photography from its invention to contemporary issues. (Formerly 7100:370)

**ART:374 Photography II for Non-Art Majors (3 Credits)**

Prerequisite: ART 274. Projects designed to expand the student's awareness of technical conceptual and aesthetic issues in photographic images. 35mm film camera with full manual control required. (Formerly 7100:374)

**ART:375 Photography II (3 Credits)**

Prerequisite: ART 275. Projects designed to expand student's awareness of technical, conceptual and aesthetic issues in photographic images. 35mm film camera with full manual control required. (Formerly 7100:375)

**ART:377 Medium and Large Format Photography (3 Credits)**

Prerequisite: ART 374 or ART 375. A technical course using medium and large format film cameras, which are furnished for the course's duration. Topics include camera movements, advanced exposure and development techniques. (Formerly 7100:377)

**ART:378 Alternative Photographic Processes (3 Credits)**

Prerequisites: ART 374 or ART 375. Exploration in alternative photographic processes using hand-coated Cyanotype, Van Dyke Brown and Platinum emulsions, with digitally created large-format negatives. (Formerly 7100:378)

**ART:380 Illustration (3 Credits)**

Prerequisite: ART 283 or permission of instructor. Application of painting and drawing skills and aesthetic sensitivity to specific commercial illustration and editorial art assignments. (May be repeated for a total of nine credits.) (Formerly 7100:380)

**ART:381 Digital Imaging II (3 Credits)**

Prerequisite: ART 280. Advanced digital imaging development and manipulation with an emphasis on preparation and use of digital images in print, multimedia and web applications. (Formerly 7100:381)

**ART:382 Graphic Design Junior Review (1 Credit)**

Prerequisites: ART 250, ART 252, and ART 288. Corequisites: ART 384 and ART 387. Junior level review by graphic design faculty. Students present a portfolio of work from specified courses that exemplify creative and technical competencies. (Formerly 7100:382)

**ART:384 Professional Design Practices (2 Credits)**

Prerequisite: ART 288. Corequisites: ART 382 and ART 387. Comprehensive overview of standard business practices specific to the graphic design field. Prepares students to work as interns in professional creative environments. (Formerly 7100:384)

**ART:385 3D Modeling, Printing and Prototyping (3 Credits)**

Prerequisite: ART 189. Computer imaging course with an emphasis in three-dimensional modeling and preparation of files for output to various 3D devices for production or screen. (May be repeated for a total of nine credits) (Formerly 7100:385)

**ART:387 Typography III (3 Credits)**

Prerequisite: ART 288. Corequisites: ART 382 and ART 384. Incorporation of typography, photography, and concept development into advertising and design composition. Emphasis is given to integration of type and image, typography structure and refinement. (Formerly 7100:387)

**ART:401 Special Topics: History of Art (1-3 Credits)**

(May be repeated for credit when a different subject or level of investigation is indicated) Prerequisites: ART 102 or permission of instructor. Lecture course in which subject is specified each time course is offered. Focuses upon an art movement, time period, the production of a single artist or a specific art medium. (Formerly 7100:401)

**ART:402 Museology (3 Credits)**

Lecture course dealing with museum science, including museum history, staff structures, art handling, storage, and presentation and exhibit preparation. (Formerly 7100:402)

**ART:403 Art and Critical Theory (3 Credits)**

Prerequisites: ART 103 or permission of the instructor. This course, designed for both studio and art history majors, surveys the major theoretical currents in contemporary criticism and art history. (Formerly 7100:403)

**ART:405 History of Art Symposium (1-3 Credits)**

Prerequisite: One Art History course beyond ART 102 or permission of instructor. Lecture, individual research and evaluation, group discussion related to a specific time period or to an artistic problem. (May be repeated for credit when a different subject is indicated) (Formerly 7100:405)

**ART:407 Methods of Art History (3 Credits)**

Prerequisite: ART 102 or permission of the instructor. This course explores the history of the discipline and the permutations it has undergone since its establishment in the early years of the nineteenth century. (Formerly 7100:407)

**ART:409 Time-Based Media (3 Credits)**

Prerequisite: ART 280. Through the development of increasingly complex projects, students explore the conceptual and aesthetic considerations of creating motion media based presentations. (May be repeated for a total of six credits.) (Formerly 7100:409)

**ART:410 Methods of Teaching Elementary Art (3 Credits)**

Prerequisite: ART 105. Corequisite: ART 428. A field based course presenting the necessary skills and knowledge to successfully implement, plan, instruct, and assess a diverse art-based curriculum for the elementary classroom. (Formerly 7100:410)

**ART:411 Methods of Teaching Secondary Art (3 Credits)**

Prerequisite: ART 105. Corequisite: ART 429. A field based course presenting the necessary skills and knowledge to successfully implement, plan, instruct, and assess a diverse art-based curriculum for the secondary classroom. (Formerly 7100:411)

**ART:412 Student Teaching Colloquium (3 Credits)**

Prerequisites: Admission to the Art Education major, senior status, successful completion of field experience, and permission of instructor. Corequisite: EDSE 495. A lecture course providing support and guidance to develop the skills and knowledge necessary for a successful completion of the Education Teacher Performance Assessment, a 16 week classroom clinical experience, capstone project, and licensure in the field of Art Education. Students will gain practical experience in building a resume, applying for teaching positions, obtaining licensure, developing a portfolio and practicing pedagogical techniques in their classrooms. This course fulfills the General Education-Integrated and Applied Learning requirement. (Formerly 7100:412)

**Gen Ed:** - Capstone

**ART:418 Multiples and Multiplicity (3 Credits)**

Prerequisites: Student must have Junior standing and have completed at least one ART 300 level course in their major. Advanced printmaking class recommended for studio majors working with multiples, variability, and production requiring students to define and complete their own projects. (Formerly 7100:418)

**ART:419 Special Topics in Print (3 Credits)**

Prerequisite: ART 131 or ART 144 or ART 145. Investigation in specialized printmaking media like Photogravure, Digital Printing, and Book Arts among others. May be offered in conjunction with university sponsored residency or travel. (Formerly 7100:419)

**ART:420 Sculpture Portfolio Review (0 Credits)**

Prerequisite: ART 422. Corequisite: ART 422. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses. (Formerly 7100:420)

**ART:422 Advanced Sculpture (3 Credits)**

Prerequisite: ART 250 and ART 322. Development of individual points of view and sculptural statements. (May be repeated for a total of 15 credits.) (Formerly 7100:422)

**ART:423 Art Bomb Brigade: Methods for Creating Public Art (3 Credits)**

An experiential learning studio course in which students explore how artists work with community stakeholders to develop ideas for site specific mural projects. (Formerly 7100:423)

**ART:424 Middle School Materials & Techniques (3 Credits)**

A studio course exploring current topics and media/materials and techniques in middle school art education. (Formerly 7100:424)

**ART:425 Ceramics: Methods, Materials, & Concepts (3 Credits)**

Prerequisites: ART 131 and ART 145. (Lab) Ceramics for teachers. Introduces the potter's wheel, hand-building, firing kilns, history of ceramics and ceramic forms, safety in the studio and strategies for teaching ceramics. (Formerly 7100:425)

**ART:426 Early Childhood Art Education (3 Credits)**

A lecture course for art educators exploring visual arts as a vehicle for whole child development and learning across the curriculum in PK-5 school settings. (Formerly 7100:426)

**ART:427 Art in the Inclusive Classroom (3 Credits)**

Prerequisite: EDFN 220. Art education course exploring the use of art with diverse populations through lecture, hands on art making and site visitations. (Formerly 7100:427)

**ART:428 Elementary Field Exp: Art Licensure (1 Credit)**

Corequisite: ART 410. Instructional experience in the PK-6 art classroom to apply theory and research into practice. (Formerly 7100:428)

**ART:429 Secondary Field Exp: Art Licensure (1 Credit)**

Corequisite: ART 411. Instructional experience in the 7-12 art classroom to apply theory and research into practice. (Formerly 7100:429)

**ART:430 Professional Practices for Creative Careers (3 Credits)**

Studio course with experiential learning component introduces students to professional practices for securing creative careers after graduation. (Formerly 7100:430)

**ART:435 Contemporary Art Issues (3 Credits)**

Prerequisite: ART 103. Discussion course for advanced students in any visual arts discipline, dealing with concepts and critical theories related to current practice of the visual arts. (Formerly 7100:435)

**ART:440 New Media III (3 Credits)**

Pre/Corequisite: [ART 110 and ART 330] or [NMED 100 and NMED 300]. Students create their original New Media projects through proposals, productions, and a show. This course will be in addition or crosslisted with the NMED 400 course. (Formerly 7100:440)

**ART:450 Advanced Drawing/Life Drawing (3 Credits)**

Prerequisites: ART 351 and ART 335. Individual drawing projects exploring aesthetic and conceptual issues involving research, experimentation, and portfolio of a series of related work. (Formerly 7100:450)

**ART:452 Service Learning in Art (3 Credits)**

Prerequisite: Senior standing. An interdisciplinary, lecture/studio course that integrates fine art and design to promote understanding of the importance of sustained community outreach and serving as arts advocates. (Formerly 7100:452)

**ART:453 Advanced Throwing (3 Credits)**

Prerequisite: [ART 250 and ART 353] or permission of instructor. Emphasis on making pottery using the potters wheel beyond the beginning level including organization and planning skills needed to make and exhibit or sell items. (May be repeated for a total of six credits.) (Formerly 7100:453)

**ART:454 Advanced Ceramics (3 Credits)**

Prerequisite: ART 250 and ART 353. Emphasis on refinement of technique toward personal aesthetic statement in preparation for professional or private studio production. Student may choose a general survey of subject matter or a more concentrated area of study. (May be repeated for a total of 18 credits.) (Formerly 7100:454)

**ART:455 Advanced Painting (3 Credits)**

Prerequisites: ART 351 and ART 348. Exploration of aesthetic and conceptual issues involved in developing an individual stylistic approach to image making, leading to senior portfolio and BFA exhibition. (May be repeated for a total of 15 credits) (Formerly 7100:455)

**ART:456 Ceramic Portfolio Review (0 Credits)**

Prerequisite: ART 454. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite courses. (Formerly 7100:456)

**ART:457 Professional Practices (3 Credits)**

Prerequisite: Junior or Senior status. This course covers business, marketing and professional development practices, while also introducing students to issues and strategies in contemporary art. (Formerly 7100:457)

**ART:460 The Myers Forum: Studio (1-3 Credits)**

Prerequisites: ART 103 and ART 250, and successful completion of at least one 300 level course in the Myers School of Art, or permission of the instructor. Cross-disciplinary studio addressing current issues related to theory and practice of visual communication. (Formerly 7100:460)

**ART:461 The Myers Forum: Seminar (1-3 Credits)**

Prerequisites: ART 103 and ART 250, and successful completion of at least one 300 level course in the Myers School of Art, or permission of the instructor. Cross-disciplinary seminar addressing current issues related to the theory and practice of visual communication. (Formerly 7100:461)

**ART:464 Painting/Drawing Senior Exhibition Preparation (0 Credits)**

Prerequisites: Senior standing, the second ART 455 Advanced Painting/Drawing. Preparation of the portfolio to be exhibited in the Senior Exhibition. (Formerly 7100:465)

**ART:465 Color in Metals II (3 Credits)**

Prerequisite: ART 368. Continuation of 368. Advanced projects designed to develop the student's aesthetic values in color in metals. Emphasis on individual approach and experimentation. (May be repeated for a total of 12 credits.) (Formerly 7100:368)

**ART:466 Advanced Metalsmithing (3 Credits)**

Prerequisites: ART 250 and ART 366. Investigation in depth of aesthetic and technical problems of metalsmithing. Student works on individual projects under guidance from instructor. (May be repeated for a total of 18 credits.) (Formerly 7100:466)

**ART:467 Metalsmithing Portfolio Review (0 Credits)**

Prerequisite: ART 466. Corequisite: ART 466. A committee of full-time faculty review portfolio of studio work completed in prerequisite courses. (Formerly 7100:467)

**ART:470 Emerging Technologies Studio (3 Credits)**

Prerequisite: ART 111. Emerging Technologies Studio focuses on the in-depth development of 2 major projects, one in 2D and one in 3D, specifically geared towards individual investigations in a student's specialty. Both projects are achieved by concentrating on the latest technologies available in the maker space at the Myers School of Art. (Formerly 7100:470)

**ART:471 Web and Devices II (3 Credits)**

Prerequisite: ART 281. Students learn dynamic back-end understanding of website development while maintaining an emphasis on design and creative solutions. (May be repeated for a total of six credits.) (Formerly 7100:471)

**ART:472 Photography III: Color for Non-Art Majors (3 Credits)**

Prerequisite: ART 374. Advanced level lecture, studio and lab experience in color photography introducing students to technical, aesthetic and conceptual issues of the medium. (Formerly 7100:472)

**ART:473 Photography III: Color (3 Credits)**

Prerequisite: ART 375. Advanced level lecture, studio and lab experience in color photography introducing students to technical, aesthetic and conceptual issues of the medium. (Formerly 7100:473)

**ART:474 Advanced Photography for Non-Art Majors (3 Credits)**

Prerequisite: ART 374. Studio course with emphasis on advanced individual projects. (Formerly 7100:474)

**ART:475 Advanced Photography (3 Credits)**

Prerequisites: ART 250, ART 375, and ART 473. Photographic media, light and photographic equipment manipulated experimentally to produce creative graphic images. Student works under guidance of instructor on advanced individual projects. (May be repeated for a total of 21 credits.) (Formerly 7100:475)

**ART:476 Photography Portfolio Review (0 Credits)**

Prerequisite: ART 475. A committee of full-time faculty reviews portfolio of studio work completed in prerequisite/corequisite courses. (Formerly 7100:476)

**ART:479 Professional Photographic Practices (3 Credits)**

Prerequisites: ART 475 and senior standing. Introduction to business and marketing practices in the fine art and commercial photography industry. Financial, legal, organizational, promotional, interpersonal, and ethical practices will be covered. (Formerly 7100:479)

**ART:480 Advanced Graphic Design (3 Credits)**

Prerequisite: ART 382 or permission of instructor. Student works on advanced-level individual projects under supervision of instructor. (May be repeated for a total of nine credits.) (Formerly 7100:480)

**ART:481 Design X Nine (3 Credits)**

Prerequisite: ART 382. Course focusing on professional business practices. Students chosen by portfolio review in junior year. Practical experience gained through working with clients and outside sources. (May be repeated for a total of nine credits.) (Formerly 7100:481)

**ART:482 Corporate Identity & Graphic Systems (3 Credits)**

Prerequisites: ART 382 and ART 384. Advanced projects in corporate identity and graphic systems analysis. Problem solving for these specific areas of graphic design within limitations of physical and digital reproduction. (Formerly 7100:482)

**ART:483 Graphic Design Presentation (3 Credits)**

Prerequisite: ART 482. Students prepare a professional portfolio and resume. The course includes project development, portfolio review and exhibition. (Formerly 7100:483)

**ART:485 Advanced Illustration (3 Credits)**

Prerequisite: ART 380 or permission of instructor. Development of a personal, unique visual voice. Exploration of traditional and/or digital approaches to illustration advancing technical proficiency, imaginative problem solving, and entrepreneurial thinking. (May be repeated for a total of nine credits) (Formerly 7100:485)

**ART:487 Packaging Design (3 Credits)**

Prerequisite: ART 382. Students solve packaging problems by synthesizing two and three-dimensional design concepts and researching materials and processes applicable to packaging of diverse products. (Formerly 7100:487)

**ART:488 Typography IV (3 Credits)**

Prerequisite: ART 387. Senior level investigation of complex sequential type systems; including publications, corporate communications and multi-application projects for comprehensive buildout while emphasizing preparation of files for various output. (Formerly 7100:488)

**ART:489 Special Topics in Studio Art (3 Credits)**

Group Investigation of Topics not offered elsewhere in curriculum. (May be repeated for credit when a different subject or level of investigation is indicated) (Formerly 7100:489)

**ART:490 Workshop in Art (1-4 Credits)**

Prerequisite: Advanced standing in art or permission of instructor. (May be repeated for credit when a different subject or level of investigation is indicated - ART 490 to maximum of eight credits; ART 590 to maximum of 12 credits). Group investigation of a particular phase of art not offered by other courses in curriculum. (Formerly 7100:490)

**ART:491 Architectural Present I (3 Credits)**

Prerequisite: ART 144. Studio practice in architectural design and presentation methods in residential and commercial interiors. (Formerly 7100:491)

**ART:492 Architectural Present II (3 Credits)**

Prerequisite: ART 491. Continuation of concepts covered in Architectural Presentations I with additional work in color rendering techniques. Emphasis on a variety of rendering mediums. (Formerly 7100:492)

**ART:493 Advanced Photography: Digital Printing (3 Credits)**

Prerequisites: ART 280 and ART 475. Digital technologies for fine-art photographers including scanning negatives; workflow; color management; image adjustment, correction and optimization; inkjet printing; and digital asset management. (Formerly 7100:493)

**ART:494 Special Topics: Art Education (1-3 Credits)**

May be repeated for credit when a different subject or level of investigation of topics of interest to the art education student is not covered elsewhere in the curriculum. (Formerly 7100:494)

**ART:495 Senior Exhibition (0 Credits)**

Prerequisite: Senior standing and permission. Exit review of work from B.F.A. candidate's major courses. (Formerly 7100:495)

**ART:496 Art Internship/Professional Experience (1-6 Credits)**

Prerequisites: Junior standing in major program and permission of Internship Director. In-depth professional training affording the intern on-the-job experience in selected areas of specialization. (Repeatable for credit. No more than six credits of internship may apply toward the elective requirement for completion of any art department major.) (Formerly 7100:496)

**ART:497 Independent Study: Art (1-7 Credits)**

Prerequisites for art majors: completion of at least one advanced course in the major with a grade of A or A- and permission of instructor. Investigation in depth of aesthetic and technical problems within a studio-selected area of specialization. Student must present in writing a proposed study plan and time schedule for instructor approval. Prerequisites for non-art majors: permission of instructor. (May be repeatable for seven credits). (Formerly 7100:497)

**ART:498 Senior Thesis in the History of Art (1-3 Credits)**

Prerequisites: 14 credits in art history and permission of instructor. Individual research in art history centered around limited topic, such as specific time period, history of specific techniques, a single artist or movement in art history. No more than 10 credits will be counted toward major. (May be repeated for credit when a different subject or level of investigation is indicated) (Formerly 7100:498)

**ART:499 Honors in Art (3 Credits)**

Prerequisites: Senior standing in the Honors Program and approval of honors project by faculty advisor. To be used for research in the Honors Program established by student and his/her adviser(s). (May be repeated for a total of six credits) (Formerly 7100:499)

## Arts & Sciences (BCAS)

**BCAS:200 Job Search Strategies for Liberal Arts & Science Majors (2 Credits)**

Students engage in comprehensive career planning and develop job search strategies. Course topics include navigating a search, creating resumes/cover letters, interviewing, and portfolio development. (Formerly 3000:200)

**BCAS:301 Cooperative Education (0 Credits)**

For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required. (May be repeated) (Formerly 3000:301)

## Automated Manufacturing Engineering Technology (AMET)

**AMET:100 Basic Principles of Manufacturing Management (4 Credits)**

A survey of basic concepts of management and their interrelationships to a manufacturing environment. Includes production control, quality control, work measurement, and employee motivation. (Formerly 2880:100)

**AMET:101 Introduction to Advanced Manufacturing (2 Credits)**

This course defines advanced manufacturing and provides students with an overview of the knowledge, skills, and abilities necessary to succeed in an advanced manufacturing career. (Formerly 2880:101)

**AMET:110 Manufacturing Processes (3 Credits)**

Study of the machines, methods, and processes used in manufacturing. (Formerly 2880:110)

**AMET:130 Work Measurement & Cost Estimating (3 Credits)**

Prerequisite: MATH 152. Time and motion study. Development of accurate work methods and production standards, and their relationship to manufacturing cost estimates. (Formerly 2880:130)

**AMET:140 Computer Aided Drawing (3 Credits)**

Drafting procedures and techniques used for creating drawings using AutoCAD software. Topics include basic components, drawing, editing, dimensioning, layers, text, blocks, plotting, and hatch. (Formerly 2880:140)

**AMET:151 Industrial Safety & Environmental Protection (2 Credits)**

A contemporary overview of the science and management of occupational health and safety programs, policies, and procedures in an industrial and business type environment. (Formerly 2880:151)

**AMET:201 Robotics & Automated Manufacturing (3 Credits)**

Prerequisite: AMET 101. Study of manufacturing automation and the computer-based products and processes available for this task. Robots, machine controllers, and machine/process interfaces are investigated. (Formerly 2880:201)

**AMET:211 Manufacturing Operations (3 Credits)**

A study of all functions involved in a manufacturing production system. Areas covered include product design, forecasting, capacity planning, scheduling, materials management, and project management. (Formerly 2880:211)

**AMET:225 Computer Aided Tool Design (3 Credits)**

Prerequisite: AMET 140 or MCET 121. The study of standard tool design practices and procedures utilizing industry-standard computer-aided design software. (Formerly 2880:225)

**AMET:230 3-D Modeling & Design (3 Credits)**

Prerequisite: AMET 140 or MCET 121. This course covers advanced topics in the use of AutoCAD. These topics include 3-D modeling. Laboratory. (Formerly 2880:230)

**AMET:232 Labor Management Relations (3 Credits)**

Prerequisite: AMET 100. Study of historical background of labor movement, management viewpoints, legal framework for modern labor organizations and collective bargaining process. (Formerly 2880:232)

**AMET:241 Introduction to Quality Assurance (3 Credits)**

Prerequisite: MATH 152. Theory and practice of inspection and sampling techniques for measurement of quality, QC charts, sampling plans, mill specs, checking machine capabilities, and setting tolerances. (Formerly 2880:241)

**AMET:248 Introduction to CNC and Additive Manufacturing (3 Credits)**

Prerequisites: MATH 153 and [AMET 140 or MCET 121] or permission. This course provides an overview of CNC manual programming utilizing the G-code programming language along with an introduction to additive manufacturing processes. (Formerly 2880:248)

**AMET:290 Special Topics: Industrial Technology (1-2 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in industrial technology. (May be repeated for a total of four credits) (Formerly 2880:290)

**AMET:301 Computer Control of Automated Systems (3 Credits)**

The development of computer based systems and computer programs using robotics and machine controllers as the solutions for automated manufacturing problems. (Formerly 2870:301)

**AMET:311 Facilities Planning (3 Credits)**

Prerequisite: AMET 140 or permission. An application based study of facilities analysis, design and layout utilizing software based solutions. (Formerly 2870:311)

**AMET:332 Management of Technology Based Operations (3 Credits)**

A study of the techniques and knowledge necessary to effectively manage technical personnel. (Formerly 2870:332)

**AMET:348 CNC Programming I (3 Credits)**

Prerequisites: [MATH 154 and MCET 121] or AMET 248, or permission. Introduction to CAM (Computer Aided Manufacturing) based CNC (Computer Numerical Control) programming; development of milling, drilling, and turning programs. (Formerly 2870:348)

**AMET:441 Advanced Quality Practices (3 Credits)**

Prerequisite: AMET 241 or permission. Specific quality assurance procedures will be developed conceptually, proven mathematically, and then tested in lab exercises. Industry accepted SQC software will be used. (Formerly 2870:441)

**AMET:448 CNC Programming II (3 Credits)**

Prerequisite: AMET 348. The study of advanced CNC programming techniques utilizing an industry standard CAM programming software package and CNC program verification software. (Formerly 2870:448)

**AMET:470 Simulation of Manufacturing Systems (3 Credits)**

Prerequisite: AMET 211. Computer simulation solutions applied to the traditional manufacturing problems of equipment justification, production line balancing, and capacity planning. (Formerly 2870:470)

**AMET:480 Automated Production (3 Credits)**

Prerequisites: AMET 301, AMET 448, and AMET 201. A study of the automated production system. The various systems studied thus far, CNC, robotics, automated machines via PLCs, and facilities design, are integrated and analyzed from a production standpoint. (Formerly 2870:480)

**AMET:485 SME Manufacturing Technologist Certification Preparation (2 Credits)**

Prerequisites: AMET 441 and MCET 347. Pre/Corequisite: AMET 480. Provides a review for the SME Manufacturing Technologist Certification Exam. Topics include a review of materials and manufacturing processes, automated systems and control, quality and process control methods, manufacturing management, and other topics appearing on the exam. (Formerly 2870:485)

**AMET:490 Manufacturing Project (2 Credits)**

Prerequisite: Senior status. Advanced CAD/CAM topics are presented. A comprehensive project is undertaken. (Formerly 2870:490)

**AMET:495 Individual Investigation in Manufacturing Engineering Technology (2 Credits)**

Selected topic(s) that provide for specific individual study in the area of manufacturing engineering technology under the direct supervision of a faculty member. (Formerly 2870:495)

**AMET:496 Special Topics in Manufacturing Engineering Technology (1-3 Credits)**

Prerequisite: Permission. Selected topic(s) that provide for specific course work in the area of manufacturing engineering technology offered once or only occasionally in areas where no formal course exists. (Formerly 2870:496)

**AMET:499 Workshop in Manufacturing Engineering Technology (1-3 Credits)**

Prerequisite: Permission. Group studies of special topics in manufacturing engineering technology. (Formerly 2870:499)

## Biology (BIOL)

**BIOL:100 Introduction to Botany (4 Credits)**

Identification and biology of common plants of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory. (Formerly 3100:100)

**BIOL:101 Introduction to Zoology (4 Credits)**

Identification and biology of common animals of this region. Recommended for teachers of nature study. Not available for credit toward a degree in biology. Laboratory. (Formerly 3100:101)

**BIOL:103 Natural Science: Biology (4 Credits)**

Designed for non-science majors. Laboratory and class instruction illustrate concepts of living organisms with emphasis on mankind's position in, and influence on, the environment. (Formerly 3100:103)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**BIOL:106 Exploring Biology (3 Credits)**

Exploration of how science works and the cellular organization, genetic inheritance and diversity of living things. Not available for credit toward a degree in biology. (Formerly 3100:106)

**Gen Ed:** - Natural Science

**BIOL:108 Introduction to Biological Aging (3 Credits)**

Prerequisite: BIOL 103. Survey of normal anatomical and physical changes in aging and associate diseases. (For students in gerontological programs at Wayne College. Not for B.S. biology credit.) (Formerly 3100:108)

**Gen Ed:** - Natural Science



**BIOL:111 Principles of Biology I (4 Credits)**

Prerequisite or Corequisite: CHEM 151 Molecular, cellular basis of life; energy transformations, metabolism; cell reproduction, genetics, development, immunology, evolution, and origin and diversity of life (through plants). Laboratory. (Formerly 3100:111)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**BIOL:112 Principles of Biology II (4 Credits)**

Prerequisite: BIOL 111 with a grade of C- or better. Animal diversity; nutrients, gas exchange, transport, homeostasis, control in plants and animals; behavior; ecology. (BIOL 111 and BIOL 112 are an integrated course for biology majors.) Laboratory. (Formerly 3100:112)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**BIOL:113 Professional Development for Biology Majors (1 Credit)**

Prerequisite/Corequisite: BIOL 111. This course is for Biology majors in their first year of study to provide useful tools as they pursue a Biology career. Recommended, not required. (Formerly 3100:113)

**BIOL:130 Principles of Microbiology (3 Credits)**

Basic principles and terminology of microbiology; cultivation and control of microorganisms; relationships of microorganisms; medical microbiology. Laboratory. Not available for credit toward a degree in biology. (Formerly 3100:130)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**BIOL:131 The Biology of Monsters (1 Credit)**

Many movie monsters use exaggerations or extrapolations of real biological concepts. This course uses monsters to teach key biological concepts in a fun and accessible way. A short lecture is followed by a screening of the movie. (Formerly 3100:131)

**BIOL:180 BS/MD Orientation (1 Credit)**

Orientation to the BS/MD Program. Restricted to students in the BS/MD Program. Graded credit/no credit. Not available for credit toward a biology degree. (Formerly 3100:180)

**BIOL:190 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. Restricted to the student in NEOUCOM, six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:190)

**BIOL:191 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. Restricted to the student in NEOUCOM, six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:191)

**BIOL:200 Human Anatomy & Physiology I (3 Credits)**

Study of structure and function of the human body. Molecular, cellular function, histology, integumentary system, skeletal system, muscular system, nervous system, and the sense organs. Not available for credit toward a degree in biology. (Formerly 3100:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**BIOL:201 Human Anatomy & Physiology Laboratory I (1 Credit)**

Laboratory devised to allow hands on experience using models, dissections of various animals, virtual dissection, and physiological exercises. Not available for credit toward a degree in biology. (Formerly 3100:201)

**BIOL:202 Human Anatomy & Physiology II (3 Credits)**

Prerequisite: BIOL 200. Study of structure and function of the human body. Endocrine system, cardiovascular system, lymphatics, respiratory system, urinary system, digestive system, and reproductive systems. Not available for credit toward a degree in biology. (Formerly 3100:202)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**BIOL:203 Human Anatomy & Physiology Laboratory II (1 Credit)**

Laboratory devised to allow hands on experience using models, dissections of various animals, virtual dissection, and physiological exercises. Not available for credit toward a degree in biology. (Formerly 3100:203)

**BIOL:211 General Genetics (3 Credits)**

Prerequisite: Completion of BIOL 112 with a grade of "C-" or better. Principles of heredity, principles of genetics. (Formerly 3100:211)

**BIOL:212 Genetics Laboratory (1 Credit)**

Prerequisite: BIOL 112 with a grade C- or better, and prerequisite or corequisite: BIOL 211. Laboratory experiments in genetics with emphasis on scientific method; techniques in molecular biology. (Formerly 3100:212)

**BIOL:217 General Ecology (3 Credits)**

Prerequisite: Completion of BIOL 112 with a grade of "C-" or better. Study of interrelationships between organisms and environment. (Formerly 3100:217)

**BIOL:225 Biology of AIDS (1 Credit)**

Prerequisite: Permission. Course examines the Human Immunodeficiency Virus and the disease of AIDS. Virus structure, replication, therapy, transmission, epidemiology, disease process and social consequences are studied. Not available for credit toward a degree in biology. (Formerly 3100:225)

**BIOL:238 Biomimicry Foundations (3 Credits)**

An introduction to biomimicry through the analysis of case studies, including those from Northeast Ohio, and a consideration of the major tools and methods. (Formerly 3100:238)

**BIOL:265 Introductory Human Physiology (4 Credits)**

Study of physiological processes in human body, particularly at organ-systems level. Not open to preprofessional majors. Laboratory. Not available for credit toward a degree in biology. (Formerly 3100:265)

**Gen Ed:** - Natural Science w/LAB

**BIOL:290 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. A continuation of 190/191 for a second year student in NEOUCOM six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:290)

**BIOL:291 Health-Care Delivery Systems (1 Credit)**

Health-care principles and practices. A continuation of 190/191 for a second year student in NEOUCOM six-year BS/MD program. Graded credit/noncredit. Not available toward credit as major in biological sciences. (Formerly 3100:291)

**BIOL:295 Special Topics in Biology (1-3 Credits)**

Prerequisite: Permission. Special courses offered occasionally in areas where no formal course exists. Not available for credit toward a degree in biology. (Formerly 3100:295)

**BIOL:311 Cell & Molecular Biology (4 Credits)**

Prerequisites: CHEM 151, CHEM 152, CHEM 153, CHEM 154, and BIOL 211. Study of structure and function of cells, with emphasis on both classical and modern approaches to understanding organelles, energy balance, protein synthesis, and replication. (Formerly 3100:311)

**BIOL:312 Neuroscience in Health and Disease (3 Credits)**

Prerequisite: BIOL 112 with a C or better or BIOL 202 with a C or better or PSYC 320 with a C or better. Discover how neurons communicate and explore how the brain functions under conditions of normal health, as well as conditions of disease. (Formerly 3100:312)

**BIOL:315 Evolutionary Biology Discussion (1 Credit)**

Prerequisite: BIOL 211 with a grade of C- or better. Informal discussions of various aspects of organic evolution of general or special interest. (Formerly 3100:315)

**BIOL:316 Evolutionary Biology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Description of core evolutionary concepts and the history of evolutionary thought including natural selection, sexual selection, genetic drift, higher level selection and speciation. (Formerly 3100:316)

**BIOL:318 Biomimicry Design Challenge (3 Credits)**

A studio design course using nature as a model for creating innovative solutions targeting a specific design problem. It combines a brief introduction into biomimetics and is open to students from different disciplines in the arts, sciences, and engineering. (Formerly 3100:318)

**BIOL:331 Microbiology (4 Credits)**

Prerequisites: BIOL 112, BIOL 211, and CHEM 263 (or corequisite). Survey of monera with emphasis on the bacteria: their morphology, cultivation and chemical characteristics. Relationships of microorganisms to humans and their environment. Laboratory. (Formerly 3100:331)

**BIOL:342 Flora & Taxonomy (3 Credits)**

Prerequisite: BIOL 112 with a C- or better. Origins of Ohio flora, ecological and evolutionary relationships. Survey of local flowering plant families, collection and identification of flora. Laboratory and field trips. (Formerly 3100:342)

**BIOL:343 Diversity of Plants (3 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217. A broad survey of the traditional plant "branches" of the tree of life. Diversity, structure, and function of fungi, algae, and land plants. (Formerly 3100:343)

**BIOL:344 Diversity of Plant Laboratory (2 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217: Corequisite: BIOL 343. A broad laboratory survey of the traditional plant "branches" of the tree of life. Students will have hands-on experience with fungi, algae, and land plants. (Formerly 3100:344)

**BIOL:345 Biology of Vascular Plants (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. A lecture and laboratory course which presents an overview of the anatomy, morphology, development and evolution of vascular plants. (Formerly 3100:345)

**BIOL:363 Foundations of Physiology I (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Fundamentals of physiology including integrating systems (neurophysiology, sensory processes, and endocrinology), movement, and muscle. For all pre-professional students and Biology majors. (Formerly 3100:363)

**BIOL:364 Foundations of Physiology Laboratory I (2 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Corequisite: BIOL 363. Laboratory experiments in animal physiology. (Transport processes, neurophysiology, endocrinology, muscle physiology.) Presentation of results in written scientific format. (Formerly 3100:364)

**BIOL:365 Histology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Cellular structure of organs in relation to their functional activity, life history, comparative development. Laboratory. (Formerly 3100:365)

**BIOL:367 Genomics (3 Credits)**

Prerequisites: BIOL 111 and BIOL 112. Study of genomes from all branches of life to develop a deeper understanding of functional genomics, genomic architecture, and impacts (ethical and social) of advances in genomics. (Formerly 3100:367)

**BIOL:401 Human Anatomy for Biology Majors (4 Credits)**

Prerequisite: BIOL 112 with a C- or better. Organizing principles and patterns found in human organs and systems. Laboratory integrates creative, analytical and virtual approaches to translate concept into practical application of anatomy. (Formerly 3100:401)

**BIOL:404 Digital Skills for Biologists (3 Credits)**

This course teaches students with no prior experience the fundamentals of programming, electronics, 3D printing, actuation and robotics for application to biological experiments. (Formerly 3100:404)

**BIOL:406 Principles of Systematics (3 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 211, and BIOL 316. The science of identifying, naming, and classifying the diversity of life. Topics include: nomenclature, types, techniques of data collection, and methods of phylogenetic reconstruction. (Formerly 3100:406)

**BIOL:418 Field Ecology (4 Credits)**

Prerequisite: BIOL 217 (statistics strongly recommended). Introduction to sampling methods, design of experiments and observations, and computer analysis; some local natural history. Laboratory. (Formerly 3100:418)

**BIOL:421 Tropical Field Biology (4 Credits)**

Prerequisites: Completion of courses BIOL 111 and BIOL 112 with a grade of C- or better, or equivalent. Ecology of coral reefs, tide pools, mangroves, intertidal zones, terrestrial flora and fauna, island biogeography. Taught at a field station in the tropics. Field trips involved; transportation costs. (Formerly 3100:421)

**BIOL:422 Conservation Biology (3 Credits)**

Prerequisite: BIOL 217. Explores the factors affecting survival of biodiversity, and how to develop practical approaches to resolve complicated conservation issues. (Formerly 3100:422)

**BIOL:423 Population Biology (3 Credits)**

Prerequisites: BIOL 211 and BIOL 217. Discussions of animal and plant ecology and evolutionary biology from a species and population level perspective. Includes topics in population ecology and population genetics. (Formerly 3100:423)

**BIOL:426 Wetland Ecology (4 Credits)**

Prerequisite: BIOL 217. Wetland ecology; principles and conservation. Field studies will be conducted at Bath Nature Preserve. Laboratory. (Formerly 3100:426)

**BIOL:427 Freshwater Ecology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better, or by permission. The course explores the diversity of aquatic life and key characteristics of freshwater ecosystems with emphasis on the Laurentian Great Lakes. Includes field trips, laboratory. (Formerly 3100:427)

**BIOL:428 Biology of Behavior (3 Credits)**

Prerequisites: BIOL 211, BIOL 217, and BIOL 316. Biological basis of behavior, ethology, and behavioral ecology. An evolutionary perspective is emphasized. (Formerly 3100:428)

**BIOL:429 Biology of Behavior Laboratory (1 Credit)**

Prerequisite or corequisite: BIOL 428 and permission of instructor. Individualized, directed study to provide the student with first-hand experience in observing, describing and interpreting animal behavior. (Formerly 3100:429)

**BIOL:430 Community/Ecosystem Ecology (3 Credits)**

Prerequisite: BIOL 217. An examination of the components, processes, and dynamics in communities and ecosystems. Includes reading and discussion of primary literature. (Formerly 3100:430)

**BIOL:433 Medical Microbiology (4 Credits)**

Prerequisite: BIOL 331. Pathogenic microorganisms, including bacteria, viruses, fungi, helminthes, and how they cause disease; host-pathogen interactions and the function of the immune response in controlling disease. Laboratory. (Formerly 3100:433)

**BIOL:437 Immunology (4 Credits)**

Prerequisite: BIOL 211 and BIOL 311. Nature of antigens, antibody response, and antigen-antibody reactions. Site and mechanism of antibody formations, hypersensitivity, immunologic tolerance and immune diseases considered. Laboratory. (Formerly 3100:437)

**BIOL:439 Advanced Immunology (3 Credits)**

Prerequisite: BIOL 437. Immunology is studied from a historical and current perspective. Topics include T cells, B cells, antigen presentation, HIV, and transplantation. (Formerly 3100:439)

**BIOL:440 Mycology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Structure, life history, classification of representative fungi with emphasis on the importance of fungi to humans. Laboratory. (Formerly 3100:440)

**BIOL:443 Phycology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Examination of the major groups of algae with emphasis on life histories and their relationship to algal form and structure. Laboratory. (Formerly 3100:443)

**BIOL:444 Field Marine Phycology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Collection and identification of tropical marine algae on San Salvador Island, The Bahamas. Discussion of characteristics and ecology of major groups of Caribbean algae. Laboratory. (Formerly 3100:444)

**BIOL:451 General Entomology (4 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217. Structure, physiology, life cycles, economic importance and characteristics of orders and major families of insects. Laboratories parallel lectures. (Formerly 3100:451)

**BIOL:453 Invertebrate Zoology (4 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, and BIOL 217. Invertebrate groups, their classification, functional morphology, adaptive radiation and life history. A phylogenetic approach is used. Laboratories parallel lectures. (Formerly 3100:453)

**BIOL:454 Parasitology (4 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better. Principles of parasitism; host parasite interactions; important human and veterinary parasitic diseases; and control measures. Laboratories parallel lectures. (Formerly 3100:454)

**BIOL:455 Ichthyology (4 Credits)**

Prerequisites: BIOL 217. Study of fishes; incorporates aspects of evolution, anatomy, physiology, natural history, and commercial exploitation of fishes. Laboratory incorporates field-based exercises and fish taxonomy. (Formerly 3100:455)

**BIOL:456 Ornithology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Introduction to biology of birds: classification, anatomy, physiology, behavior, ecology, evolution, natural history and field identification. Laboratory and field trips. (Formerly 3100:456)

**BIOL:457 Herpetology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Survey of the diversity, ecology and evolution of amphibians and reptiles. Special emphasis is given to Ohio species. Laboratory. (Formerly 3100:457)

**BIOL:458 Vertebrate Zoology (4 Credits)**

Prerequisite: BIOL 316 or permission. Biology of vertebrates, except birds evolution, ecology, behavior, systematics and anatomy. Laboratory with field trips. (Formerly 3100:458)

**BIOL:460 Medical Histology (4 Credits)**

Prerequisite: BIOL 311. 100% online course. Structure of human cells and tissues and their identification. Functional organization of the human cell and tissues. (Formerly 3100:460)

**BIOL:463 Exercise Physiology (3 Credits)**

Prerequisite: BIOL 363 or instructor permission. Through lecture, reading and critical analysis of current literature, physiologic mechanisms of exercise in animals will be explored. (Formerly 3100:463)

**BIOL:465 Advanced Cardiovascular Physiology (3 Credits)**

Prerequisite: BIOL 202, or BIOL 363, or BIOL 473. Study of biological mechanisms involved in heart attack, strokes, fluid balance, hypertension and heart disease. Controversial issues in each area will be examined and current research presented. (Formerly 3100:465)

**BIOL:466 Vertebrate Embryology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. Lectures focus on development of model vertebrate organisms, and cellular and molecular mechanisms underlying animal development. (Formerly 3100:466)

**BIOL:467 Comparative Vertebrate Morphology (4 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. An introduction to the comparative morphology of major vertebrates. The laboratories consist of dissections of representative vertebrates. (Formerly 3100:467)

**BIOL:468 The Physiology of Reproduction (3 Credits)**

Prerequisites: BIOL 112 with a grade of C- or better, or BIOL 202. Study of the physiological mechanisms of reproduction throughout the animal kingdom with emphasis upon mammalian endocrinological control. Controversial issues and current research will be examined. (Formerly 3100:468)

**BIOL:469 Respiratory Physiology (3 Credits)**

Prerequisite: BIOL 202, or BIOL 363, or BIOL 473. Study of mechanisms determining gas exchange including mechanics, ventilation, blood flow, diffusion, and control systems. Emphasis is given to normal human lung function. (Clinical aspects are not considered in detail.) (Formerly 3100:469)

**BIOL:470 Lab Animal Regulations (1 Credit)**

Required of anyone working with animals, and covers government regulations, care of animals and a lab to teach basic animal handling and measurement techniques. (Formerly 3100:470)

**BIOL:471 Physiological Genetics (4 Credits)**

Prerequisite: BIOL 211 or equivalent and [BIOL 202, or BIOL 363, or BIOL 473]. The integrative study of how genetics and physiology influence complex systems from molecular to behavioral in plants and animals. Laboratory. (Formerly 3100:471)

**BIOL:472 Biological Mechanisms of Stress (3 Credits)**

Prerequisite: BIOL 202, or BIOL 363, or BIOL 473. Study of mechanisms from molecular to behavioral of how stress influences body systems and signals. The latest research and experimental issues are discussed. (Formerly 3100:472)

**BIOL:473 Foundations of Physiology II (3 Credits)**

Prerequisite: BIOL 363. Continuing fundamentals of physiology including metabolism and temperature, respiration and circulation, and osmoregulation. Adaptation to extreme environments is emphasized. (Formerly 3100:473)

**BIOL:474 Foundations of Physiology Laboratory II (1 Credit)**

Prerequisite: BIOL 364; corequisite BIOL 473. Laboratory experiments in animal physiology (respiration, circulation, metabolism, osmoregulation). Presentation of results in scientific format and as oral reports. (Formerly 3100:474)

**BIOL:475 Comparative Biomechanics (3 Credits)**

Investigation of how physical constraints on biological materials, structural mechanics and locomotion relate to the survival and evolution of living organisms. (Formerly 3100:475)

**BIOL:478 Renal Physiology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better. The study of how the kidneys affect other body systems and how, in turn, they are affected by these systems. (Formerly 3100:478)

**BIOL:480 Molecular Biology (3 Credits)**

Prerequisite: BIOL 211 and BIOL 311. Fundamentals of molecular biology, including recombinant DNA technology, applications in biotechnology, medicine, and genetic engineering. Mechanisms of gene regulation. (Formerly 3100:480)

**BIOL:481 Advanced Genetics (3 Credits)**

Prerequisite: BIOL 211. Nature of the gene; genetic codes; hereditary determinants; mutagenesis and genes in population. Lecture and seminar. (Formerly 3100:481)

**BIOL:482 Neurobiology (3 Credits)**

Prerequisites: Completion of BIOL 111 and BIOL 112 with a grade of "C-" or better. History of Neuroscience; organization, function and development of the central nervous system; electrophysiological properties of nerve cells; learning and memory; molecular basis for mental diseases. (Formerly 3100:482)

**BIOL:483 Research Techniques in Neuroscience (3 Credits)**

Prerequisite: [BIOL 112, or BIOL 202, or BIOL 320] with a C or better. Discover how the most cutting edge neuroscience research techniques are designed and implemented to further our understanding of the brain and visual system. (Formerly 3100:483)

**BIOL:485 Cell Physiology (3 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better and CHEM 401. Explores molecular and biochemical aspects of energy metabolism, inter and intracellular signaling, growth and death of cells. Emphasizes up-to-date scientific literature. (Formerly 3100:485)

**BIOL:486 Cell Physiology Laboratory (2 Credits)**

Prerequisite: BIOL 112 with a grade of C- or better and CHEM 401. Corequisite: BIOL 485. Practice of modern cell physiology laboratory techniques. Emphasis on student directed original research. (Formerly 3100:486)

**BIOL:494 Workshop in Biology (1-3 Credits)**

(May be repeated) Prerequisite: Permission of instructor. Group studies of special topics in biology. May not be used to meet undergraduate or graduate major requirements in biology. May be used for elective credit only. (Formerly 3100:494)

**BIOL:495 Special Topics in Biology (1-3 Credits)**

Prerequisite: Permission. Special courses offered occasionally in areas where no formal course exists. (Formerly 3100:495)

**BIOL:496 Internship in Biology (1-3 Credits)**

(May be repeated for maximum of 6 credits) Prerequisites: Permission of department and a minimum 3.0 GPA in Biology courses (20 credits minimum). Work experience to focus on career applications in Biology. Maximum 3 credits will count towards Biology electives. (Formerly 3100:496)

**BIOL:497 Biological Problems (1-3 Credits)**

(May be repeated for a total of 6 credits) Prerequisites: Permission of department, 2.0 GPA or better in Biology coursework, and currently in the College of Arts & Sciences. Advanced level work, usually consisting of laboratory investigations. A maximum of 4 credits may apply toward the major degree requirements. (Formerly 3100:497)

**BIOL:499 Senior Honors Program in Biology (1-3 Credits)**

(May be repeated for a total of five credits) Prerequisites: senior standing in Honors College and approval of honors preceptor. Open only to biology and natural sciences divisional majors in Honors College. Independent study leading to completion of approved senior honors. (Formerly 3100:499)

## Biomedical Engineering (BMEN)

**BMEN:100 Introduction to Biomedical Engineering (1 Credit)**

Pre/Corequisite: MATH 221 or appropriate AP score. Introduction to Biomedical Engineering and resources available on campus for academic and career success. (Formerly 4800:100)

**BMEN:101 Tools for Biomedical Engineering (2 Credits)**

Pre/Corequisite: MATH 221 or appropriate AP score for Calculus placement. Introduction to logic and problem solving using the Matlab environment; engineering drawing and graphics using Solidworks with specific emphasis on biomedical engineering problems. (Formerly 4800:101)

**BMEN:111 Introduction to Biomedical Engineering Design (3 Credits)**

Prerequisite: BMEN 101. Prerequisite or Corequisite: MATH 222. Introduction to the interdisciplinary nature of Biomedical Engineering research and design through the use of lectures, discussions, homework and design projects. (Formerly 4800:111)

**BMEN:201 Biomedical Engineering Sophomore Seminar (1 Credit)**

Prerequisites: BMEN 101 and sophomore or greater standing. A seminar format to allow students to learn about current research and careers in Biomedical Engineering. Topics in technical communications will also be covered. (Formerly 4800:201)

**BMEN:220 Biomedical Computing (3 Credits)**

Prerequisites: MATH 223, BMEN 101 and admission to an engineering major within the College of Engineering and Polymer Science.

Corequisite: MATH 335. Programming in Matlab environment to solve engineering problems using built-in and user-defined functions and various modules including signal processing and image processing. Concepts will be illustrated using relevant biomedical engineering examples. (Formerly 4800:220)

**BMEN:291 Biomedical Engineering Design Principles I (1 Credit)**

Prerequisite: BMEN 101. Corequisite: MATH 222. Introduction to basic BME design principles including: the engineering design process and additive manufacturing for devices. (Formerly 4800:291)

**BMEN:292 Biomedical Engineering Design Principles II (1 Credit)**

Prerequisite: BMEN 101. Corequisite: MATH 335. Introduction to basic BME design principles including: the engineering design process, medical device regulations/standards and subtractive manufacturing for devices. (Formerly 4800:292)

**BMEN:300 Biomaterials (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science. Properties of materials used in medicine and their interaction with biological materials will be discussed. Biocompatibility issues and materials properties and characterization will also be discussed. (Formerly 4800:300)

**BMEN:305 Introduction to Biophysical Measurements (4 Credits)**

Prerequisites: BMEN 101 and [ELEN 231 or ELEN 307] and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: BIOL 202. Biomedical Engineering involves measurement of Physiological processes in living organisms. An understanding of the variety of instruments used and the limitations are introduced. (Formerly 4800:305)

**BMEN:307 Bioelectronics Lab (1 Credit)**

Prerequisite: Admission to Biomedical Engineering. Pre/Corequisite: ELEN 307. Introduction to circuit principles as applied to biomedical instrumentation including: components, measurement instrumentation, power supplies, and prototype boards. Students will design, build, and troubleshoot basic biomedical circuits, take measurements, and analyze the outputs. (Formerly 4800:307)

**BMEN:310 Modeling & Simulation of Biomedical Systems (3 Credits)**

Prerequisites: MATH 335, BMEN 220, and admission to an engineering major within the College of Engineering and Polymer Science. Modeling and simulation of physiological systems. (Formerly 4800:310)

**BMEN:315 Biomechanics & Biomaterials Lab (2 Credits)**

Prerequisite: Admission to Biomedical Engineering. Pre/Corequisites: BMEN 300 and BMEN 365. Laboratory experience that applies concepts and practices in biomechanics and biomaterials. (Formerly 4800:315)

**BMEN:325 Design of Medical Devices (3 Credits)**

Prerequisites: Junior/senior standing in the College of Engineering and Polymer Science or the College of Arts and Sciences. Design of Medical Devices, design criteria, human factors, patient care and monitoring devices, surgical devices, bench testing and legal liability. (Formerly 4800:325)

**BMEN:360 Biofluid Mechanics (3 Credits)**

Prerequisites: MATH 335, CHEM 153, PHYS 292, and MECE 203. Introduction to the fundamentals of fluid mechanics and their application to biological, cardiovascular, respiratory and other biofluid systems. (Formerly 4800:360)

**BMEN:362 Transport Fundamentals for Biomedical Engineering (3 Credits)**

Prerequisite: MATH 335, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. Introductory topics in fluid, heat, and mass transfer including both integral and differential analysis as it applies to biological and biomedical systems. (Formerly 4800:362)

**BMEN:365 Mechanics for Biological Systems (3 Credits)**

Prerequisites: Admission to Biomedical Engineering and CIVE 201. This course addresses biomechanics, with an emphasis on reviews of statics and introduction to strength of materials that are relevant to biological systems. This course will give you the opportunity to understand how mechanical engineering principles are applied to physiology and pathophysiology (medical problems). (Formerly 4800:365)

**BMEN:370 Biomechanics of Human Movement (3 Credits)**

Prerequisites: BIOL 202 and MECE 203. The application of engineering mechanics and anatomy to study and analyze human movement. Lectures and in-class labs will introduce students to experimental and theoretical techniques. (Formerly 4800:370)

**BMEN:391 Biomedical Engineering Regulatory Process (1 Credit)**

Prerequisite: Admission to Biomedical Engineering and BMEN 291. Pre/Corequisite: BMEN 292. Basic BME design principles including medical device regulations and standards, FDA regulatory processes, and clinical trials. (Formerly 4800:391)

**BMEN:392 BME Design Project Needs Analysis (1 Credit)**

Prerequisites: Admission to Biomedical Engineering and BMEN 391. Establish problem statement/clinical need, research project, and develop proposal and timeline for project. (Formerly 4800:392)

**BMEN:420 Biomedical Signal & Image Processing (3 Credits)**

Prerequisites: CPEN 220 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: BMEN 305. Introduction to the basic problems associated with biological signal and image processing applications, and appropriate approaches to dealing with them. (Formerly 4800:420)

**BMEN:422 Physiological Control Systems (3 Credits)**

Prerequisites: BIOL 202, MATH 335. The basic techniques employed in control theory, systems analysis and model identification as they apply to physiological systems. (Formerly 4800:422)

**BMEN:430 Design of Medical Imaging Systems (3 Credits)**

Prerequisites: BIOL 200, PHYS 292, ELEN 340, ELEN 353, BMEN 305 and admission to an engineering major within the College of Engineering and Polymer Science or permission of instructor. Physical principles and engineering design of medical imaging systems, with emphasis on digital radiography, computed tomography, nuclear medicine, ultrasound and magnetic resonance. (Formerly 4800:430)

**BMEN:435 Image Science (3 Credits)**

Prerequisites: BIOL 200, PHYS 292, ELEN 340 or by permission of instructor. Principles of image science, image performance parameters and image assessment techniques of medical imaging systems, with emphasis on digital radiography, tomographic imaging, ultrasound and magnetic resonance. (Formerly 4800:435)

**BMEN:437 Physics of Medical Imaging (3 Credits)**

Prerequisites: BIOL 200, PHYS 292, ELEN 353, BMEN 305. Physical principles of medical imaging modalities with emphasis on the properties, generation mechanisms and interaction of radiation with matter, physics of the image formation and optimization. (Formerly 4800:437)

**BMEN:440 Advanced Biomaterials (3 Credits)**

Prerequisites: BMEN 300 and admission to an engineering major within the College of Engineering and Polymer Science. The interactions between biomaterials and medical devices will be analyzed with respect to their potential fractionation of biological mechanisms. (Formerly 4800:440)

**BMEN:445 Experimental Techniques in Biomaterials Tissue Engineering (3 Credits)**

Prerequisite: BMEN 440. Laboratory experience that applies engineering concepts and practices to the analysis of biomaterials and tissue engineering. (Formerly 4800:445)

**BMEN:450 Tissue Engineering (3 Credits)**

Prerequisites: BMEN 300, BMEN 365, BMEN 362, and [BMEN 360 or CHEE 321]. This course will explore topics to successfully design tissue engineered devices. For advanced engineering students with a background in materials, mechanics, and transport phenomena. (Formerly 4800:450)

**BMEN:455 Biotransport (3 Credits)**

Prerequisites: BIOL 202, BMEN 220, and [BMEN 362 or CHEE 321]. With the foundations of fluid, heat and mass transfer established, this course focuses on specific biological examples of transport phenomena. (Formerly 4800:455)

**BMEN:460 Experimental Techniques in Biomechanics (3 Credits)**

Prerequisites: BMEN 362, BMEN 365 and admission to an engineering major within the College of Engineering and Polymer Science. Principles of testing and measuring devices commonly used for biomechanics studies. Laboratories for demonstration and hands-on experience. (Formerly 4800:460)

**BMEN:464 Microfluidics for Biomedical Engineering (3 Credits)**

Prerequisites: BMEN 362 or CHEE 321 or BMEN 360. This course will discuss fundamental principles of single and two phase flow of biofluids in microfluidic devices, and present the applications of lab-on-a-chip systems in BME. (Formerly 4800:464)

**BMEN:470 Human Factors Engineering (3 Credits)**

Prerequisite: Admission to an engineering major within the College of Engineering and Polymer Science. Reliability and human error, human capabilities and limitations, crew protection, display systems, controls and controlling actions, interface design principles, risk management, Safety and accident prevention. (Formerly 4800:470)

**BMEN:485 Special Topics in Biomedical Engineering (1-3 Credits)**

Prerequisite: Permission of advisor. Directed individual or group research or study in the student's field of interest. Topic subject to approval of advisor. (Formerly 4800:485)

**BMEN:491 Biomedical Engineering Design I (2 Credits)**

Prerequisites: [BMEN 111 or BMEN 392], BMEN 220, and [(ELEN 307 and BMEN 300 and BMEN 362 and BMEN 365) or {ELEN 340 and ELEN 360 and MECE 203 and BMEN 310}] and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: BMEN 305. The design process will be presented utilizing case studies and detailed biomedical engineering design projects. (Formerly 4800:491)  
**Gen Ed:** - Capstone

**BMEN:492 Biomedical Engineering Design II (2 Credits)**

Prerequisites: BMEN 491 and admission to an engineering major within the College of Engineering and Polymer Science. The design process will be continued utilizing case studies and detailed biomedical engineering design projects. (Formerly 4800:492)

**BMEN:498 Introduction to BME Research (2 Credits)**

Prerequisites: Permission of instructor. Directed individual or group study in research in biomedical engineering. Course is credit/no credit. May not be repeated. (Formerly 4800:498)

**BMEN:499 BME Research Project (1-3 Credits)**

Prerequisites: BMEN 498, permission of instructor. Directed individual or group study in research in biomedical engineering. May be repeated. (Formerly 4800:499)

## Business (BUSN)

**BUSN:100 Career Planning in Business Administration (1 Credit)**

Examines the academic, professional, and personal skills required for a successful business career. Develops student career plan. Provides exposure to the variety of career opportunities available in public and private sector organizations. (Formerly 6100:100)

**BUSN:101 Business Issues in a Connected World (3 Credits)**

An introductory course that examines the 'forces' that are changing how business will be conducted in the 21st century, the 'factors' that determine the success of firms and the impact of both on individuals as consumers and professionals. (Formerly 6100:101)

**BUSN:110 College of Business Success Seminar (1-3 Credits)**

This course is designed to help new College of Business students transition from high school or work to the college environment and begin the career development process. (Formerly 6100:110)

**BUSN:111 Professional Development Seminar (1 Credit)**

This course introduces students to College of Business (CoB) Professional Development resources and prepares students to be career ready and connected. The course is heavily oriented towards experiential learning. Topics include: Preparing for internships and co-ops; Understanding tools to assist students in the job search process such as Handshake, LinkedIn and Suitable; Exploring career options; Participating in experiential events as it relates to professional development and involvement. (Formerly 6100:111)

**BUSN:200 Personal Leadership Skills (1 Credit)**

An introductory course that will expose students to leadership theory and practice in organizations. Students will have an opportunity to self-reflect and investigate leadership styles, ethical issues and influence methods. (Formerly 6100:200)

**BUSN:230 Business Communication (3 Credits)**

Prerequisites: ENGL 111, ENGL 112, and [COMM 105 or COMM 106 or COMM 263]. Students will obtain the knowledge and ability use writing and oral communication skills in a professional environment to effectively persuade others and to mobilize action among various organizational stakeholders. (Formerly 6100:230)

**BUSN:301 Cooperative Education (0 Credits)**

(May be repeated) For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required. (Formerly 6000:301)

**BUSN:350 Special Topics in Business (1-3 Credits)**

Opportunity to study special topics and current issues in business. May be repeated with a change of subject. (Formerly 6100:350)

**BUSN:495 Internship in Business Administration (3 Credits)**

Prerequisite: Permission of designated faculty member. On-the-job experience with public or private sector organizations in the student's major field of study. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers are required. (Formerly 6100:495)

**BUSN:497 Honors Project in Business Administration (1-3 Credits)**

Prerequisite: Junior standing in Honors Program. Individual directed research relevant to the student's major. Group integrated symposium or an individualized study format available. (Formerly 6100:497)

**BUSN:499 Independent Study in Business Administration (3 Credits)**

Prerequisite: Permission of designated faculty member. Provides a means for individualized study of a problem(s) or issue in the student's major field of study. (Formerly 6100:499)

## Business Law (BLAW)

**BLAW:220 Legal & Social Environment of Business (3 Credits)**

Prerequisite: A minimum academic standing of a Sophomore or greater. Explores the legal and social environment in which modern business must function. The legal system, public and private law, and contemporary social and ethical issues are addressed. (Formerly 6400:220)

**BLAW:321 Business Law I (3 Credits)**

Prerequisite: completion of 64 credits. Discussions designed to develop legal reasoning within substantive areas of contractual obligation, agency relationships, partnerships, corporations, accountant's legal responsibility, federal securities regulation and antitrust law. (Formerly 6400:321)

**BLAW:322 Business Law II (3 Credits)**

Prerequisites: BLAW 321 and completion of 60 credits. Applications of Uniform Commercial Code in sales, commercial paper and secured transactions. Additional discussions include property, wills, estates, trusts, bailments, insurance, suretyship, bankruptcy, and labor law. (Formerly 6400:322)

**BLAW:323 International Business Law (3 Credits)**

The law and international commercial transactions. Among the subjects covered are sovereignty; treaties; agreements; antitrust practices; property rights; international arbitration. (Formerly 6400:323)

**BLAW:424 Legal Concepts of Real Estate (3 Credits)**

Prerequisite: at a minimum must have been admitted to a major in a four-year degree granting college. Study of concepts of law governing the many interests in real estate including acquisition, encumbrance, transfer, rights and obligations of parties, and the various state and federal regulations. The legal concepts of the business of real estate are likewise examined. Emphasis is on a managerial approach utilizing the case method. (Formerly 6400:424)

## Chemical Engineering (CHEE)

**CHEE:101 Tools for Chemical Engineering (2 Credits)**

Corequisites: CHEE 110 and MATH 149. Introduction to Chemical Engineering. Basic concepts of engineering practice. Introduction to professional level software including process simulation, control design, spreadsheets, mathematical computation, and process flow graphics. (Formerly 4200:101)

**CHEE:110 Project Management and Teamwork I (1 Credit)**

Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:110)

**CHEE:121 Chemical Engineering Computations (2 Credits)**

Prerequisites: CHEE 101 or CORE 101. Computer programming language, flowcharting, introductory simulation and introductory numerical analysis. (Formerly 4200:121)

**CHEE:194 Chemical Engineering Design I (1 Credit)**

Prerequisite: CHEE 101 and permission. Individual or group project under faculty supervision. Introduction to chemical engineering processes and modern design technology. Written report is required. (Formerly 4200:194)

**CHEE:200 Material & Energy Balances (4 Credits)**

Prerequisites: [CHEE 121 or CORE 105], CHEM 151, and MATH 221. Introduction to material and energy balance calculations applied to solution of chemical engineering problems. (Formerly 4200:200)

**CHEE:210 Project Management and Teamwork II (1 Credit)**

Prerequisite: CHEE 110. Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:210)

**CHEE:220 Introduction to Thermodynamic Processes (3 Credits)**

Prerequisites: MATH 223 and [CHEE 200 or CORE 200]. First and Second Laws of Thermodynamics, work, entropy, heat engines and refrigeration cycles, equations of state, departure functions and reaction equilibria. (Formerly 4200:220)

**CHEE:225 Equilibrium Thermodynamics (4 Credits)**

Prerequisites: [CHEE 200 or CORE 200] and MATH 223. Second law of thermodynamics, entropy, applications, comprehensive treatment of pure and mixed fluids. Phase and chemical equilibrium, flow processes, power production and refrigeration processes covered. (Formerly 4200:225)

**CHEE:294 Chemical Engineering Design II (1-2 Credits)**

Prerequisites: CHEE 121, CHEE 200 and permission. Supervised individual or group design project. Analysis of multi-unit process using simulation and/or experimental techniques. Written report and oral presentation required. (Formerly 4200:294)

**CHEE:305 Materials Science (2 Credits)**

Prerequisite: CHEM 153. Corequisite: PHYS 292. Structure, processing and properties of metals, ceramics and polymers. Special topics, such as composites, corrosion and wear. (Formerly 4200:305)

**CHEE:308 Introduction to Bio-based Polymers (3 Credits)**

Prerequisites: CHEM 263 and junior or greater standing. This course introduces basic concepts of polymer science: building blocks, structure, elementary reactions and polymerization mechanisms, through seven natural polymers. (Formerly 4200:308)

**CHEE:310 Project Management and Teamwork III (1 Credit)**

Prerequisites: CHEE 210 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 300 or CHEE 353. Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:310)

**CHEE:320 Phase Equilibrium Thermodynamics (3 Credits)**

Prerequisites: CHEE 220 and admission to an engineering major within the College of Engineering and Polymer Science. Thermodynamics of mixtures, excess properties, activity coefficients, mixture fugacity, mixture phase equilibrium and thermodynamic consistency. (Formerly 4200:320)

**CHEE:321 Transport Phenomena (3 Credits)**

Prerequisites: [CHEE 200 or CORE 200], MATH 335 and admission to an engineering major within the College of Engineering and Polymer Science. Constitutive equations for momentum, energy and mass transfer. Development of microscopic and macroscopic momentum, energy and mass transfer equations for binary systems. Analogy and dimensionless analysis. Problems and applications in unit operations of chemical engineering. (Formerly 4200:321)

**CHEE:330 Chemical Reaction Engineering (3 Credits)**

Prerequisites: MATH 335, CHEE 220 and admission to an engineering major within the College of Engineering and Polymer Science. Nonequilibrium processes including chemical reaction mechanisms, rate equations and ideal reactor design applied to homogeneous and heterogeneous systems. (Formerly 4200:330)

**CHEE:341 Process Economics (2 Credits)**

Prerequisites: [CHEE 200 or CORE 200] and admission to an engineering major within the College of Engineering and Polymer Science. Theory and application of engineering economy to multi-unit processes. Cost estimation, time value of money, profit analysis, decision making and introduction to project management. (Formerly 4200:341)

**CHEE:351 Fluid & Thermal Operations (3 Credits)**

Prerequisite: CHEE 321 and admission to the College of Engineering and polymer Science. Applications of fluid mechanics including piping, pumping, compression, metering, agitation and separations. Applications of heat transfer by conduction, convection and radiation to design of process equipment. (Formerly 4200:351)

**CHEE:353 Mass Transfer Operations (3 Credits)**

Prerequisites: [CHEE 220 or CHEE 225] and [C- or above in CHEE 200 or CORE 200] and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CHEE 320. Theory and design of staged operations including distillation, extraction, absorption. Theory and design of continuous mass transfer devices. (Formerly 4200:353)

**CHEE:360 Chemical Engineering Laboratory (3 Credits)**

Prerequisites: CHEE 353. Corequisites: CHEE 330, and CHEE 351. Comprehensive experiments in combined heat and mass transfer, thermodynamics, and reaction kinetics. Data collection and analysis. Comprehensive reports in various formats. (Formerly 4200:360)

**CHEE:394 Chemical Engineering Design III (1-3 Credits)**

Prerequisites: CHEE 351 and permission. Supervised individual or group design project. Develop, evaluate and design feasible solutions to an open-ended problem pertinent to chemical engineering. Written report and oral presentation required. (Formerly 4200:394)

**CHEE:408 Polymer Engineering (3 Credits)**

Prerequisite: Senior standing or higher or permission. Commercial polymerization, materials selection and property modification, polymer processing, applied rheology and classification of polymer industry. (Formerly 4200:408)

**CHEE:410 Project Management and Teamwork IV (1 Credit)**

Prerequisites: CHEE 310 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisites: CHEE 441 or CORE 440. Teams freshmen through senior Chemical Engineering and Corrosion Engineering undergraduates on a design team working on a realistic chemical engineering problem. Develops teamwork, communications, presentation, project management and information technology skills. (Formerly 4200:410)

**CHEE:421 Fundamentals of Multiphase Transport Phenomena (3 Credits)**

Prerequisite: CHEE 321 or equivalent, and instructor permission. Major topics to be covered: Intraphase and interphase transport phenomena, Transport phenomena in multiphase fluids, Transport in Porous Media, Transport in Gas/liquid pipe flows, Computational Fluid Dynamics of multiphase systems, and Case studies. (Formerly 4200:421)

**CHEE:435 Process Analysis & Control (3 Credits)**

Prerequisites: CHEE 330, CHEE 353 and admission to an engineering major within the College of Engineering and Polymer Science. Response of simple chemical processes and design of appropriate control systems. (Formerly 4200:435)

**CHEE:438 Energy Integration (3 Credits)**

Prerequisite: CHEE 351. This course uses Pinch Design formalism to present the core energy integration tools for energy and area targeting, and tools for integration of reactors, distillation columns, and heat pumps. (Formerly 4200:438)

**CHEE:441 Process Design I (3 Credits)**

Prerequisites: CHEE 330, CHEE 341, CHEE 351, CHEE 353 and admission to an engineering major within the College of Engineering and Polymer Science. Application of chemical engineering fundamentals to the design of a multi-unit process. Emphasis on use of process simulators. Advanced equipment design, oral and written communication skills and teamwork. (Formerly 4200:441)

**CHEE:442 Process Design II (3 Credits)**

Prerequisites: CHEE 441 and admission to an engineering major within the College of Engineering and Polymer Science. Teaches methods of process conceptualization, preliminary optimization. Specific topics include: chemical process design methodology, design heuristics, energy integration, and process safety review. (Formerly 4200:442)

**Gen Ed:** - Capstone

**CHEE:450 Chemical Product Design and Development (3 Credits)**

Prerequisite: Senior standing or permission. Introduction to the strategies and processes used to design and development new chemical products from the idea stage through manufacturing. (Formerly 4200:450)

**CHEE:461 Solids Processing (3 Credits)**

Prerequisites: CHEE 321 and CHEE 353 or permission. Comprehensive problems in sedimentation, fluidization, drying and other operations involving mechanics of particulate solids in liquid and gas continua. (Formerly 4200:461)

**CHEE:462 Industrial Enzyme Technology (3 Credits)**

Prerequisites: CHEE 330 and CHEE 351. Application of chemical engineering to biological processes involving enzymes and their industrial applications. Special emphasis given to the kinetics, control, design, and process economics aspects. (Formerly 4200:462)

**CHEE:463 Pollution Control (3 Credits)**

Prerequisite: CHEE 353 or permission. Air and water pollution sources and problems. Engineering aspects and methodology. (Formerly 4200:463)

**CHEE:466 Digitized Data & Simulation (3 Credits)**

Prerequisite: Permission. Data acquisition and analysis by digital devices, digital control applications and design. (Formerly 4200:466)



**CHEE:470 Electrochemical Engineering (3 Credits)**

Prerequisites: CHEE 321 and CHEE 330. Chemical engineering principles as applied to the study of electrode processes and to the design of electrochemical reactors. Topics include electrochemical thermodynamics, cell polarizations, Faraday's Laws, electrode kinetics, transport processes in electrochemical systems, current distributions, reactor design, experimental methods, commercial processes, and batteries and fuel cells. (Formerly 4200:470)

**CHEE:471 Fuel Engineering (3 Credits)**

Prerequisite: CHEE 330 or permission of instructor. Topics related to clean liquid and solid fuels technology. Special emphasis given to design, system analysis, environmental impacts, and novel technologies. (Formerly 4200:471)

**CHEE:472 Separation Processes in Biochemical Engineering (3 Credits)**

Introduction to the separation and purification techniques pertinent to bioprocesses, with emphasis on engineering considerations for large scale operations. (Formerly 4200:472)

**CHEE:473 Bioreactor Design (3 Credits)**

Prerequisite: CHEE 330 or instructor consent. Design, analysis, and scale-up of bioreactors for various biological processes. (Formerly 4200:473)

**CHEE:488 Chemical Processes Design (3 Credits)**

Prerequisite: Permission of instructor or senior standing. Process design and analysis of emerging chemical technologies. Case studies, such as in-situ processing, alternative fuels, bioremediation, and engineering materials manufacture. (Formerly 4200:488)

**CHEE:494 Design Project (3 Credits)**

Prerequisite: Permission or senior standing. Individual design project pertinent to chemical engineering under faculty supervision. Written report and oral presentation required. (Formerly 4200:494)

**CHEE:496 Topics in Chemical Engineering (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Topics selected from new and developing areas of chemical engineering, such as electrochemical engineering, coal and synthetic fuels processing, bioengineering, simultaneous heat and mass transfer phenomena and new separation techniques. (Formerly 4200:496)

**CHEE:497 Honors Project (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Individual creative project pertinent to chemical engineering culminating in undergraduate thesis, supervised by faculty member of the department. (Formerly 4200:497)

**CHEE:499 Research Project: Chemical Engineering (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Individual research project pertinent to chemical engineering under faculty supervision. Report required. (Formerly 4200:499)

## Chemistry (CHEM)

**CHEM:100 Chemistry & Society (3 Credits)**

Qualitative introduction to chemistry using current world problems and commercial products, such as the ozone layer, nuclear fission, polymers and drugs, to introduce chemical principles. (Formerly 3150:100)

**CHEM:101 Chemistry for Everyone (4 Credits)**

Integrated, hands-on, laboratory instruction in the fundamental concepts of chemistry for general education and middle-level licensure for pre-service and in-service teachers. (Formerly 3150:101)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**CHEM:110 Introduction to General, Organic & Biochemistry I (Lecture) (3 Credits)**

Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation. (Formerly 3150:110)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**CHEM:111 Introduction to General, Organic & Biochemistry I (Laboratory) (1 Credit)**

Prerequisite/Corequisite: CHEM 110. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry. (Formerly 3150:111)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**CHEM:112 Introduction to General, Organic & Biochemistry II (Lecture) (3 Credits)**

Prerequisite: CHEM 110. Sequential. Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation. (Formerly 3150:112)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**CHEM:113 Introduction to General, Organic & Biochemistry II (Laboratory) (1 Credit)**

Prerequisite/Corequisite: CHEM 112. Sequential. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry. (Formerly 3150:113)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**CHEM:114 Introduction to General, Organic & Biochemistry (Lecture) (4 Credits)**

Introduction to principles of chemistry, fundamentals of inorganic, organic and biochemistry. Structure and chemistry of carbohydrates, lipids, proteins; biochemistry of enzymes, metabolism, radiation. (Formerly 3150:114)

**CHEM:115 Introduction to General, Organic & Biochemistry (Laboratory) (1 Credit)**

Pre/Corequisite: CHEM 114. Laboratory course applying principles of chemistry and fundamentals of inorganic, organic and biochemistry. (Formerly 3150:115)

**CHEM:151 Principles of Chemistry I (3 Credits)**

Prerequisite: placement in MATH 149 or MATH 154 or permission. Introduction to basic facts and principles of chemistry including atomic and molecular structure, states of matter and thermodynamics. For chemistry majors, pre-medical students and most other science majors. Discussion (day sections). (Formerly 3150:151)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**CHEM:152 Principles of Chemistry I Laboratory (1 Credit)**

Pre/Corequisite: CHEM 151. Laboratory course applying principles of thermodynamics, chemical analysis and laboratory practice. (Formerly 3150:152)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**CHEM:153 Principles of Chemistry II (3 Credits)**

Pre/Corequisite: CHEM 151. Continuation of 151, 152, including aqueous solution theory, chemical kinetics, equilibrium, electrochemistry and nuclear chemistry. For chemistry majors, premedical students and most other science majors. Discussion (day sections). (Formerly 3150:153)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**CHEM:154 Qualitative Analysis (2 Credits)**

Prerequisite: CHEM 152; pre/corequisite: CHEM 153. Laboratory course applying principles of chemical equilibrium to inorganic qualitative analysis. (Formerly 3150:154)

**CHEM:199 Introductory Seminar in Chemistry (1 Credit)**

Basic concepts in chemistry practice including written and oral communication skills, computer skills, professional ethics, environmental issues, chemical literature, degree options, and career considerations. (Formerly 3150:199)

**CHEM:263 Organic Chemistry Lecture I (3 Credits)**

Sequential. Prerequisite: CHEM 153 or permission. Structure and reactions of organic compounds, mechanism of reactions. (Formerly 3150:263)

**CHEM:264 Organic Chemistry Lecture II (3 Credits)**

Sequential. Prerequisite: CHEM 263 or permission. Structure and reactions of organic compounds, mechanism of reactions. (Formerly 3150:264)

**CHEM:265 Organic Chemistry Laboratory I (2 Credits)**

Sequential. Prerequisite: CHEM 154; pre/corequisite: CHEM 263. Laboratory experiments to develop techniques in organic chemistry and illustrate principles. Discussion. (Formerly 3150:265)

**CHEM:266 Organic Chemistry Laboratory II (2 Credits)**

Sequential. Prerequisite: CHEM 265. Laboratory experiments to develop techniques in organic chemistry and illustrate principles. Discussion. (Formerly 3150:266)

**CHEM:305 Physical Chemistry for the Biological Sciences (4 Credits)**

Prerequisites: CHEM 264, MATH 222, and [PHYS 262 or PHYS 292]. Chemical thermodynamics, kinetics, molecular structure and spectra. Accepted for the BS degree in Biochemistry. (Formerly 3150:305)

**CHEM:313 Physical Chemistry Lecture I (3 Credits)**

Prerequisites: CHEM 264, MATH 223, and PHYS 291. Gases, thermodynamics, thermochemistry, solutions, dilute solutions, chemical equilibrium, phase rule, chemical kinetics, electrochemistry, electrolytic equilibria. (Formerly 3150:313)

**CHEM:314 Physical Chemistry Lecture II (3 Credits)**

Prerequisites: CHEM 264, and MATH 335, and PHYS 292. Atomic and molecular structure and spectroscopy. (Formerly 3150:314)

**CHEM:370 Biochemistry Laboratory (2 Credits)**

Prerequisite: CHEM 266. An integrated laboratory experience covering the isolation, characterization and analysis of enzymes and DNA, protein synthesis and purification, enzyme kinetics, biochemical databases and statistical treatment of data. (Formerly 3150:370)

**CHEM:380 Advanced Chemistry Laboratory I (2 Credits)**

Prerequisite: CHEM 266. A laboratory experience that focuses on the synthetic and spectroscopic techniques of modern inorganic chemistry, including bio-inorganic and organometallic compounds. (Formerly 3150:380)

**CHEM:381 Advanced Chemistry Laboratory II (2 Credits)**

Prerequisite CHEM 266; corequisite: CHEM 314 or CHEM 305 or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, and instrumental techniques. (Formerly 3150:381)

**CHEM:399 Internship in Chemistry (1-3 Credits)**

Prerequisites: minimum GPA of 2.5; permission of the Department. Work experience focused on career applications of the discipline of Chemistry. (May repeat for a maximum of six credits.) (Formerly 3150:399)

**CHEM:401 Biochemistry Lecture I (3 Credits)**

Prerequisite: CHEM 264. Biochemistry of amino acids, carbohydrates, lipids, and nucleic acids: structure/function relations. Enzymes as catalysts: kinetics and regulation. Cofactors. (Formerly 3150:401)

**CHEM:402 Biochemistry Lecture II (3 Credits)**

Prerequisite: CHEM 401. Overview of metabolism; thermodynamics; carbohydrate, fatty acid, amino acid, and nucleoside anabolism and catabolism; hormonal control of metabolism. Photosynthesis. (Formerly 3150:402)

**CHEM:406 Biochemistry of Gene Expression (3 Credits)**

Prerequisites: BIOL 311 and CHEM 401. DNA, RNA, and protein synthesis, translation and transcription. Gene function and expression, cell cycle and cancer, genetic engineering, gene silencing, gain of function studies. (Formerly 3150:406)

**CHEM:410 Special Readings in Analytical Chemistry (1-3 Credits)**

Prerequisite: Junior standing or higher. Selected topics in advanced analytical chemistry for which no course exists. (May be repeated) (Formerly 3150:410)

**CHEM:411 Special Readings in Inorganic Chemistry (1-3 Credits)**

Prerequisite: Junior standing or higher. Selected topics in advanced inorganic chemistry for which no course exists. (May be repeated) (Formerly 3150:411)

**CHEM:412 Special Readings in Organic Chemistry (1-3 Credits)**

Prerequisite: Junior or greater standing. Selected topics in advanced organic chemistry for which no course exists. (May be repeated) (Formerly 3150:412)

**CHEM:413 Special Readings in Physical Chemistry (1-3 Credits)**

Prerequisite: Junior or greater standing. Selected topics in advanced physical chemistry for which no course exists. (May be repeated) (Formerly 3150:413)

**CHEM:415 Special Readings in Biochemistry (1-3 Credits)**

Prerequisite: Junior or greater standing. Selected topics in advanced biochemistry for which no course exists. (May be repeated) (Formerly 3150:415)

**CHEM:423 Analytical Chemistry I (3 Credits)**

Prerequisite: CHEM 154 and CHEM 263. Theoretical principles of quantitative and instrumental analysis. (Formerly 3150:423)

**CHEM:424 Analytical Chemistry II (3 Credits)**

Prerequisite: CHEM 154 and CHEM 263. Instrumental analysis with emphasis on newer analytical tools and methods. (Formerly 3150:424)

**CHEM:463 Advanced Organic Chemistry (3 Credits)**

Prerequisite: CHEM 264. Introduction to study of mechanisms of organic reactions. (Formerly 3150:463)

**CHEM:472 Advanced Inorganic Chemistry (3 Credits)**

Prerequisites: CHEM 314 or CHEM 305. Concepts of atomic structure integrated in systematic classification of elements. Periodic table. Chemistry of the representative elements. Transition elements including coordination compounds, organometallics and metal carbonyls. (Formerly 3150:472)

**CHEM:480 Advanced Chemistry Laboratory III (2 Credits)**

Prerequisite: CHEM 381; or Corequisite: CHEM 305; or permission. Integrated laboratory experience covering the areas of quantitative analysis, physical chemistry, instrumental techniques, and inorganic chemistry. (Formerly 3150:480)

**CHEM:490 Workshop in Chemistry (1-3 Credits)**

(May be repeated) Group studies of special topics in chemistry. May not be used to meet undergraduate or graduate major requirements in chemistry. (Formerly 3150:490)

**CHEM:497 Honors Project in Chemistry (2 Credits)**

(May be repeated for a total of eight credits) Prerequisites: Junior or senior standing in Honors College and permission of department honors preceptor. Independent research leading to completion of honors thesis under guidance of honors project adviser. (Formerly 3150:497)

**CHEM:498 Special Topics in Chemistry (1-3 Credits)**

Special Topics in Chemistry. (Formerly 3150:498)

**CHEM:499 Research Problems in Chemistry (1-2 Credits)**

(May be repeated for a total of eight credits) Prerequisite: Permission. Assignment of special problems to student, designed as an introduction to research problems. (Formerly 3150:499)

## Child and Family Development (CHFD)

**CHFD:147 Orientation to Child & Family Development (1 Credit)**

Introduction to academic programs, careers, and professional skills related to Child & Family Development. Open to all majors. Online sections available. (Formerly 3760:147)

**CHFD:201 Intimate Relationships (3 Credits)**

Love, intimacy, relationship development, sexuality, marriage, and parenting are studied in lifespan perspective. (Formerly 3760:201)

**CHFD:245 Infant/Toddler Care and Education Programs (3 Credits)**

Prerequisite: CHFD 265. Survey of infant/toddler development. Principles of infant/toddler early care. Design of environment and curriculum based on child's needs. Online section available. (field hours required) (Formerly 3760:245)

**CHFD:246 Multicultural Issues in Child Care (3 Credits)**

The study of cultural differences in child care and preschool settings to improve caregiving practices and enhance communication between caregivers and families. (Formerly 3760:246)

**CHFD:250 Observing & Recording Children's Behavior (3 Credits)**

Prerequisite: CHFD 265. Develops observing and recording skills, evaluates multiple methods of assessment for children's development and behavior. (field hours required) (Formerly 3760:250)

**CHFD:255 Fatherhood: Parent Role (3 Credits)**

Prerequisites: CHFD 201 or CHFD 265. Historic evolution of the father role, its changing social definition, and father's potential effects on a child's development—birth through adolescence. (Formerly 3760:255)

**CHFD:265 Child Development (3 Credits)**

Physical, cognitive, language, social, emotional, and personality development of the child from prenatal through adolescence (field hours required). (Formerly 3760:265)

**CHFD:290 Special Topics: Child & Family Development (1-3 Credits)**

Selected topics/workshops on subject areas of interest in early childhood development. May be repeated up to 4 credits. (Formerly 3760:290)

**CHFD:297 Independent Study (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Selected topics and special areas of study under supervision and evaluation of selected faculty member with whom specific arrangements have been made. (Formerly 3760:297)

**CHFD:300 Legal Environment of Families (3 Credits)**

Introduction to legal concepts and procedures with particular emphasis on how the legal system impacts families. (Formerly 3760:300)

**CHFD:301 Consumer Education (3 Credits)**

Examines consumer needs vs. wants, short- and long-term consumer concerns, and problems experienced by individual consumers as they navigate through society. Online section available. (Formerly 3760:301)

**CHFD:360 Parent-Child Relations (3 Credits)**

Prerequisite: PSYC 230 or CHFD 265. The study of interactive parent-child relations from infancy through adulthood and the internal and environmental forces which impact family dynamics. Online section available. (Formerly 3760:360)

**CHFD:362 Family Resource Management (3 Credits)**

Introduction to the application and resulting impact of resource management theories, decision-making models, processes, and principles to individual and family well-being. (Formerly 3760:362)

**CHFD:365 Infant Development (3 Credits)**

Prerequisite: PSYC 230 or CHFD 265. In depth examination of physical, cognitive, language, social, and emotional development beginning in prenatal development and throughout infancy. (field hours required) (Formerly 3760:365)

**CHFD:370 Teaching in the Early Childhood Classroom (2 Credits)**

Prerequisite: CHFD 385. Corequisite: CHFD 375. Assists students with the integration of research and applied skills needed as a professional working with young children. (Formerly 3760:370)

**CHFD:375 Teaching in the Early Childhood Classroom Lab (2 Credits)**

Prerequisite: CHFD 385. Corequisite: CHFD 370. An integrated practical experience in child development centers under the direction of experienced early childhood professionals (Formerly 3760:375)

**CHFD:380 Play and Human Development (3 Credits)**

Prerequisite: CHFD 265 or PSYC 230 or SOWK 427. A study of play and its relationship to typical and atypical development in the physical, cognitive, language, moral, social, and emotional domains. Factors that influence play such as the environment, family, attitudes, and beliefs are discussed. The role of play for all people throughout the lifespan is examined. (field hours required). (Formerly 3760:380)

**CHFD:385 Early Childhood Curriculum Methods (3 Credits)**

Prerequisite: CHFD 265. Planning, presenting, evaluating creative activities aligned with learning standards in art, music, movement, language arts, mathematics, and science. Adult-child interactions emphasized. (field hours required) (Formerly 3760:385)

**CHFD:401 American Families in Poverty (3 Credits)**

Prerequisites: [PSYC 230 or CHFD 201 or CHFD 265 or SOCIO 340 or SOWK 427], and senior standing. Overview of the issues, trends and social policies affecting American families living in poverty. Online section available. (Formerly 3760:401)

**Gen Ed:** - Complex Issues Facing Society

**CHFD:403 Home-Based Intervention Theory (3 Credits)**

Overview of home-based intervention to include philosophy and description of this programming as well as assessment of family, their home and community environment. (Formerly 1820:403)

**CHFD:404 Middle Childhood and Adolescence (3 Credits)**

Prerequisites: CHFD 201 and [PSYC 230 or CHFD 265 or SOWK 427]. In depth examination of physical, cognitive, language, social, and emotional development in middle childhood and adolescence. Online section available. (Formerly 3760:404)

**CHFD:406 Family Financial Management (3 Credits)**

Practical life skills in financial management such as budgeting strategies, how to save, invest, and plan for financial future. Online section available. (Formerly 3760:406)

**CHFD:410 Family Life Education Methods (3 Credits)**

Prerequisites: [CHFD 201 or SOWK 427] and [CHFD 362 or CHFD 406] and admission to a Child and Family Development major. This is an upper division course intended to prepare students in increasing understanding about the general philosophy and broad principles of Family Life Education. Additionally, students will learn how to plan, implement, assess, and evaluate Family Life Education (FLE) programming across the programming phases, from planning through Implementation. Further, students will learn strategies for employing best practices in FLE across diverse groups. (Formerly 3760:410)

**CHFD:421 Special Problems in Child and Family Development (1-3 Credits)**

Additional study or apprentice experience in specialized field or preparation; group and individual experimentation. (Formerly 3760:421)

**CHFD:440 Family Crisis (3 Credits)**

Prerequisite: CHFD 201. Examines family stress and crisis, the influence of internal and external variables on disorganization, coping, and recovery. Includes theory, research, and application. Online section available. (Formerly 3760:440)

**CHFD:441 Family Relationships in Middle and Later Years (3 Credits)**

Prerequisite: CHFD 201 or SOWK 427 or SOCIO 340 or PSYC 230. Exploration of family and individual development of communication and education during the middle and later years of life. Emphasis on issues related to intimacy, economics, social policies, psychological and biological changes. (Formerly 3760:441)

**CHFD:442 Human Sexuality (3 Credits)**

Prerequisite: PSYC 230 or CHFD 201 or SOWK 427. An examination of human sexuality across the lifespan. (Formerly 3760:442)

**CHFD:446 Culture, Ethnicity & Family (3 Credits)**

Prerequisites: CHFD 201 or CHFD 265, and senior status. Study of the role of culture and ethnicity in adaptation of the family system to environment. Online section available. (Formerly 3760:446)

**CHFD:447 Senior Seminar: Critical Issues in FCS Professional Develop (1 Credit)**

Prerequisites: FCS major & senior standing. Consideration of family and consumer sciences as a profession and its impact on the quality of life of individuals, families and their environments. Analysis of challenges facing the profession and all home economists. (Formerly 3760:447)

**CHFD:448 Programs for School-Aged (3 Credits)**

Study of the development, implementation and evaluation of school-age child-care programs for before and after school and vacation periods. (Formerly 3760:448)

**CHFD:450 Families, Individuals & Environments (3 Credits)**

Prerequisite: FCS major, senior standing or completion of 90 credits or permission of instructor. Integrative exploration of issues affecting the well-being of individuals, families, and communities in the multiple environments in which they function. (Formerly 3760:450)

**CHFD:460 Organization & Supervision of Child Care Centers (3 Credits)**

Theory, principles and procedures involved in establishing and operating centers for infants, toddlers, preschool and school-age children. (Formerly 3760:460)

**CHFD:461 Case Management for Children & Families I (3 Credits)**

Provides an overview of Case Management basics in a multi-systems collaborative context. Includes roles, values, principles, state and service systems, and service coordination. (Formerly 3760:461)

**CHFD:462 Case Management for Children & Families II (3 Credits)**

Prerequisite: CHFD 461 or CHFD 561. Provides in-depth exploration of Case Management principles and practice. Emphasis on process and functions, assessment, cross-system service planning and coordination, advocacy, and cultural diversity. (Formerly 3760:462)

**CHFD:464 Home-Based Intervention Techniques & Practice (3 Credits)**

Pre/Corequisite: CHFD 403. Provides intervention techniques and skill areas required for home-based intervention and learning opportunities for matching techniques with specific family problems. (Formerly 1820:404)

**CHFD:485 Seminar in Child and Family Development (1-3 Credits)**

Exploration and evaluation of current research on a selected contemporary topic. (May be repeated for a total of six credits) (Formerly 3760:485)

**CHFD:490 Workshop in Child & Family Development (1-3 Credits)**

Prerequisite: Junior or higher standing or permission of instructor. Investigation of an issue or topic in a selected area. May involve off-campus activity and/or on-campus group meeting. (Formerly 3760:490)

**CHFD:494 Internship: Child and Family Development (3 Credits)**

Prerequisite: Permission of the instructor. In depth field experience in business or community agencies relating to children and families (40 hours required per credit). (Formerly 3760:494)

**CHFD:496 Parent Education (3 Credits)**

Prerequisite: CHFD 265, SOWK 7750, or permission of instructor. Practical application that reviews and analyzes parent education methods with major emphasis on the evaluation of parent education programs. Online section available. (Formerly 3760:496)

**CHFD:499 Senior Honors Project in Child & Family Development (1-3 Credits)**

Prerequisites: senior standing in Honors Program and approval of honors preceptor. Individual study supervised by adviser. Student and preceptor develop goals, objectives and methodology. (May be repeated for a total of six credits) (Formerly 3760:499)

## Chinese (CHIN)

**CHIN:101 Beginning Chinese I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression in everyday situations through culturally authentic media and texts. (Formerly 3502:101)

**CHIN:102 Beginning Chinese II (4 Credits)**

Sequential. Prerequisite: CHIN 101 or equivalent. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression in everyday situations through culturally authentic media and texts. (Formerly 3502:102)

**CHIN:201 Intermediate Chinese I (4 Credits)**

Sequential. Prerequisite: CHIN 102 or equivalent. Continuing acquisition of speaking, listening, comprehension, reading, and writing competency through use of culturally authentic materials; emphasis on developing accuracy of self-expression. (Conducted in Chinese.) (Formerly 3502:201)

**CHIN:202 Intermediate Chinese II (4 Credits)**

Sequential. Prerequisite: CHIN 201 or equivalent. Continuing acquisition of speaking, listening, comprehension, reading, and writing competency through use of culturally authentic materials; emphasis on developing accuracy of self-expression. (Conducted in Chinese.) (Formerly 3502:202)

**CHIN:210 Chinese Culture Through Film (3 Credits)**

Prerequisites: 32 credit hours including ENGL 111 and ENGL 112 or equivalent. Exploration of Chinese culture through viewing of films subtitled in English. Readings and discussions in English. Does not count toward minor in Chinese. (Formerly 3502:210)

**Gen Ed:** - Humanities

**CHIN:301 Chinese Conversation (4 Credits)**

Prerequisite: CHIN 202 or equivalent. Continuing development of oral expression, listening comprehension and conversational ability, with emphasis on expressing and supporting opinions. (Conducted in Chinese.) (Formerly 3502:301)

**CHIN:302 Chinese Composition (4 Credits)**

Prerequisite: CHIN 202 or equivalent. Development of writing skills through intensive practice and study of written expression in Chinese. Emphasis on composing extensive descriptive narrations and personal letters. (Conducted in Chinese.) (Formerly 3502:302)

**CHIN:303 Chinese Conversation Through Media (4 Credits)**

Sequential. Prerequisite: CHIN 202 or equivalent. Development of oral expression and listening comprehension, with emphasis on discussing current topics and expressing and supporting opinions based on media clips. (Conducted in Chinese.) (Formerly 3502:303)

**CHIN:304 Chinese Reading and Writing (4 Credits)**

Prerequisite: CHIN 202 or equivalent. Continuing development of reading ability through study of Chinese publications, and writing summaries of the texts. (Conducted in Chinese.) (Formerly 3502:304)

**CHIN:311 Chinese Cultural Experience Abroad (1-8 Credits)**

Prerequisite: Residence and study abroad in a Chinese-speaking country. May be repeated once with different content. Only 8 credits allowable for minor in Chinese. (Formerly 3502:311)

**CHIN:422 Special Topics in Language Skills, or Culture or Literature (1-4 Credits)**

Prerequisite: Two of the group [CHIN 301, CHIN 302, CHIN 303, CHIN 304]. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (May be repeated once under different topic for a total of 8 credits.) (Formerly 3502:422)

**CHIN:497 Individual Reading in Chinese (1-4 Credits)**

Prerequisite: CHIN 202. Individual study under guidance of professor who directs and coordinates student's reading and research. May be repeated once for a total of 8 credits. (Formerly 3502:497)

## Civil Engineering (CIVE)

**CIVE:101 Introduction to Civil Engineering Fundamentals (3 Credits)**

Corequisite: MATH 149 or higher math or appropriate AP test score. Introduction to Civil Engineering. Basic concepts of civil engineering practice including communication skills, problem solving skills, professional ethics/goals, and teamwork. Introduction to professional level software including spreadsheets, database, and mathematical computation. (Formerly 4300:101)

**CIVE:102 Tools for Civil Engineering (3 Credits)**

Prerequisite: CIVE 101. Building on concepts of engineering practices learned in Tools I further developing communication skills, problem solving skills, professional ethics/goals, statistics and model-building, and teamwork. Advanced use of professional level software including CAD, MATLAB and Excel. (Formerly 4300:102)

**CIVE:201 Statics (3 Credits)**

Corequisites: MATH 222 and PHYS 291. Forces, resultants, couples; equilibrium of force systems; distributed forces; centers of gravity, analysis of simple structures; moments of inertia; kinematics. (Formerly 4300:201)

**CIVE:202 Introduction to Mechanics of Solids (3 Credits)**

Prerequisite: CIVE 201. Axial force, bending moment diagrams, axial stress and deformation; stress-strain diagrams; torsion; flexural stress; flexural shearing stress; compound stresses; indeterminate beams; columns. (Formerly 4300:202)

**CIVE:306 Theory of Structures (3 Credits)**

Prerequisite: CIVE 202. Stability and determinacy; statically determinate trusses and frames; approximate frame analysis influence lines; moving loads; virtual work analysis; moment area theorem; theorem of three moments; moment distribution for continuous beams and frames. (Formerly 4300:306)

**CIVE:313 Soil Mechanics (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Physical properties of soils. Soil water and groundwater flow. Stresses, displacements, volume changes, consolidation within a soil mass. Soil strength. Compaction. (Formerly 4300:313)

**CIVE:314 Foundation Design (3 Credits)**

Prerequisites: CIVE 313 and full admission to an engineering major in the College of Engineering and Polymer Science. Subsurface exploration, shallow foundations, earth retaining structures, deep foundations (Formerly 4300:314)

**CIVE:321 Introduction to Environmental Engineering (3 Credits)**

Prerequisites: CHEM 153 and MATH 222. Basic principles of ecosystems, microbiology, chemical reactions, and material flow that environmental engineers use to protect our water, air and soil. (Formerly 4300:321)

**CIVE:323 Water Supply & Pollution Control (3 Credits)**

Prerequisite: CIVE 321 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: MATH 335. Water and wastewater characteristics, criteria, quantities and distribution. Water and wastewater treatment process flowsheets, design and operation. Wastewater and residue disposal. (Formerly 4300:323)

**CIVE:341 Hydraulic Engineering (3 Credits)**

Prerequisites: MECE 310 and admission to an engineering major within the College of Engineering and Polymer Science. This course will focus on presentation and application of fundamental hydraulic principles in both the classroom and laboratory. Examination of flow in pipelines and pipe networks, pumps and pumping stations, hydrology, flow in open channels, groundwater hydraulics, and design of hydraulic structures will be studied. Emphasis will be placed on proper application of principles, data interpretation and analysis, problem solving, and report writing. (Formerly 4300:341)

**CIVE:361 Transportation Engineering (3 Credits)**

Prerequisites: Junior standing and admission to an engineering major within the College of Engineering and Polymer Science. Introductory survey of transportation topics including transportation planning requirements and techniques, introduction to design of highways, airports and railroads and introduction to traffic engineering. (Formerly 4300:361)

**CIVE:380 Engineering Materials Laboratory (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science. Fundamentals and applications of materials science, mechanics of solids and study of laboratory instrumentation and standard techniques in testing of engineering materials. (Formerly 4300:380)

**CIVE:401 Steel Design (3 Credits)**

Prerequisites: CIVE 306 and admission to an engineering major within the College of Engineering and Polymer Science. Tension, compression members; open web joists; beams; bearing plates; beam-columns; bolted, welded connections. (Formerly 4300:401)

**CIVE:403 Reinforced Concrete Design (3 Credits)**

Prerequisites: CIVE 306 and admission to an engineering major within the College of Engineering and Polymer Science. Ultimate strength analysis and design; compression steel; diagonal tension; stirrups; development length; one-way slab; T-beams; two-way slabs; columns; isolated and combined footings. (Formerly 4300:403)

**CIVE:404 Advanced Structural Design (3 Credits)**

Prerequisites: CIVE 401 and CIVE 403. Composite design; plate girders; plastic design; cantilever retaining walls; torsion in R/C members; deflection of R/C members; continuous girder bridge design. (Formerly 4300:404)

**CIVE:407 Advanced Structural Analysis (3 Credits)**

Prerequisite: CIVE 306. Energy methods for beams and frames. Stiffness and flexibility formulations for framed structures using classical and matrix methods. Introduction to stability and plastic analysis. Warping-Torsion behavior of beams. Analysis of axisymmetric circular plates and membrane shells. (Formerly 4300:407)

**CIVE:414 Design of Earth Structures (3 Credits)**

Prerequisite: CIVE 314 or permission. Design of earth structures: dams, highway fills, cofferdams, etc. Embankment construction techniques, quality control, embankment analysis, instrumentation, foundation soil stabilization, seepage analysis and control. Design problem. Graduate students will perform more advanced analysis and design. (Formerly 4300:414)

**CIVE:418 Soil & Rock Exploration (3 Credits)**

Prerequisite: CIVE 314 or permission. Site exploration criteria and planning. Conventional boring, sampling and in situ testing methods. Theory and application of geophysics and geophysical methods including seismic, electrical resistivity, gravity, magnetic and radioactive measurements. Air photo interpretation. (Formerly 4300:418)

**CIVE:423 Chemistry for Environmental Engineers (3 Credits)**

Prerequisite: One year of college chemistry. General, physical, organic biochemistry, equilibrium, and colloid chemistry concepts applied to Environmental Engineering. Concepts are used in water and wastewater laboratory. (Formerly 4300:423)

**CIVE:424 Water-Wastewater Laboratory (1 Credit)**

Corequisite: CIVE 323 or permission. Analysis of water and wastewater. (Formerly 4300:424)

**CIVE:426 Environmental Engineering Design (3 Credits)**

Prerequisite: CIVE 323. An introduction to the physical, chemical and biological processes utilized in the treatment of water and wastewater, with design parameters emphasized. (Formerly 4300:426)

**CIVE:427 Water Quality Modeling & Management (3 Credits)**

Prerequisite: CIVE 323. Analysis and simulation of the physical, chemical and biochemical processes affecting stream quality. Development of management strategies based upon the application of water quality modeling techniques to environmental systems. (Formerly 4300:427)

**CIVE:428 Hazardous & Solid Wastes (3 Credits)**

Prerequisite: Senior standing or permission of instructor. Hazardous and solid waste quantities, properties and sources are presented. Handling, processing, storage and disposal methods are discussed with non-technical constraints outlined. (Formerly 4300:428)

**CIVE:441 Hydraulic Design (3 Credits)**

Prerequisite: CIVE 341. Collection and critical evaluation of hydraulic data related to actual design problem selected by instructor. Development and analysis of design alternatives. Preparation of reports. (Formerly 4300:441)

**CIVE:443 Applied Hydraulics (3 Credits)**

Prerequisites: CIVE 341 and admission to an engineering major within the College of Engineering and Polymer Science. Review of design principles: urban hydraulics, stream channel mechanics, sedimentation, coastal engineering. (Formerly 4300:443)

**CIVE:445 Hydrology (3 Credits)**

Prerequisite: CIVE 341. Surface water hydrology, water cycle, precipitation, evaporation, stream flow. Principles of hydrologic systems and their analysis. Hydrologic simulation, reservoir planning and water supply studies. Analysis of rainfall and floods. (Formerly 4300:445)

**CIVE:448 Hydraulics Laboratory (1 Credit)**

Prerequisite: CIVE 341. Introduction to laboratory and field devices for hydraulic measurements. Reduction and presentation of hydraulic data. Individual assignments of model studies of hydraulic structures. (Formerly 4300:448)

**CIVE:450 Urban Planning (2 Credits)**

Historical developments in urban planning; urban planning techniques and patterns; comprehensive master planning studies; planning regulations; design problems; class projects; class project presentation. (Formerly 4300:450)

**CIVE:451 Computer Methods of Structural Analysis (3 Credits)**

Prerequisite: CIVE 306. Computer methods of structural analysis. Finite element software and interactive graphics. Stiffness concepts and matrix formulation of beams; modeling of simple and complex structural systems; vibration analysis using microcomputers. (Formerly 4300:451)

**CIVE:452 Structural Vibrations & Earthquakes (3 Credits)**

Prerequisite: CIVE 306. Vibration and dynamic analysis of structural systems with one, two, or more degrees of freedom; beams, frames, buildings and bridges. Numerical methods of analysis. Elastic-plastic systems. Earthquake analysis of design. Earthquake codes. (Formerly 4300:452)

**CIVE:453 Optimum Structural Design (3 Credits)**

Prerequisite: CIVE 306. Basic concepts in structural optimization. Mathematical programming methods including unconstrained minimization, multidimensional minimization and constrained minimization. (Formerly 4300:453)

**CIVE:454 Advanced Mechanics of Materials (3 Credits)**

Prerequisite: CIVE 202 or equivalent. Three-dimensional state of stress and strain analysis. Unsymmetric bending of straight and curved members with shear deformation. Beams on elastic foundations. Saint Venant's torsional problems. Inelastic analysis of bending and torsional members. Introduction to energy method. Instability behavior of prismatic members. (Formerly 4300:454)

**CIVE:463 Transportation Planning (3 Credits)**

Prerequisite: CIVE 361. Theory and techniques for development, analysis and evaluation of transportation system plans. Emphasis on understanding and using tools and professional methods available to solve transportation planning problems, especially in urban areas. (Formerly 4300:463)

**CIVE:464 Highway Design (3 Credits)**

Prerequisite: CIVE 361. Study of modern design of geometrical and pavement features of highways. Design problem and computer use. Graduate students will produce a more complete design. (Formerly 4300:464)

**CIVE:465 Pavement Engineering (3 Credits)**

Prerequisite: CIVE 361. Theories of elasticity, of viscoelasticity and of layered systems as applied to pavements. Pavement materials characterization; pavement design, pavement restoration for rigid and flexible pavements. (Formerly 4300:465)

**CIVE:466 Traffic Engineering (3 Credits)**

Prerequisite: CIVE 361. Vehicle and urban travel characteristics, traffic flow theory, traffic studies, accidents and safety, traffic signs and marking, traffic signal planning, traffic control and transportation administration. (Formerly 4300:466)

**CIVE:467 Advanced Highway Design (3 Credits)**

Prerequisites: CIVE 464, autoCAD capability, or permission. Computer-aided geometrical design of highways including survey data input, digital terrain modeling, cross-section templates, horizontal and vertical roadway design, earthwork computations, and advanced topics. (Formerly 4300:467)

**CIVE:468 Highway Materials (3 Credits)**

Prerequisites: CIVE 361 and CIVE 380 or permission. Properties of aggregates, manufacture and properties of portland cement concrete, properties of asphaltic materials, design and testing of hot mix asphalt pavement mixes and of surface treatments. Laboratory preparation of specimens and determination of properties. Graduate student requirement: Graduate students will be required to perform an additional eight-hour asphalt laboratory (Absorption recovery of asphalt from solution) and to prepare a paper on a highway materials topic. (Formerly 4300:468)

**CIVE:471 Construction Administration (3 Credits)**

Prerequisites: Junior standing and full admission to an engineering major in the College of Engineering and Polymer Science. Construction management functions, scheduling techniques for construction projects, scheduling PERT networks and linear operations, estimating building projects, construction contracts and legal structure, construction finance, engineering economics, equipment productivity, machine power, equipment selection and utilization, equipment cost, construction safety, construction trends, LEED construction. (Formerly 4300:471)

**CIVE:472 Construction Engineering (3 Credits)**

Prerequisite: Senior standing or permission. Construction equipment selection and management. Techniques of various engineering construction operations including blasting, tunneling, concrete framework and dewatering. (Formerly 4300:472)

**CIVE:473 Construction Materials (2 Credits)**

Prerequisites: CIVE 380 and CHEE 305. Composition, structure and mechanical behavior of structural materials such as concrete, wood, masonry, plastics and composite materials. Discussion of applications and principles of evaluating material properties. (Formerly 4300:473)

**CIVE:474 Underground Construction (2 Credits)**

Prerequisite: CIVE 314. Description of practices and techniques of underground construction. Selection of proper method for individual job. Design of underground openings, support systems and linings. (Formerly 4300:474)

**CIVE:480 Reliability-Based Design (4 Credits)**

Prerequisite: STAT 261 and senior standing. Probability concepts in civil engineering. Risk analysis and reliability based design. (Formerly 4300:480)

**CIVE:482 Special Projects: Civil Engineering (1-3 Credits)**

Prerequisites: Senior standing and permission. Directed individual or group research or study in student's field of interest. Topic subject to approval by adviser. (Formerly 4300:482)

**CIVE:489 Fundamental of Engineering Exam Review (0 Credits)**

Prerequisite: Senior standing. This course is intended to prepare civil engineering students for the Fundamentals of Engineering Exam, which is to be taken prior to graduation. (Formerly 4300:489)

**CIVE:490 Senior Design in Civil Engineering (3 Credits)**

Prerequisites: CIVE 323, CIVE 341, CIVE 361, CIVE 403, senior standing and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: CIVE 314 and CIVE 401. A civil engineering design project that emphasizes interdisciplinary teamwork to solve a substantial, currently relevant problem. (Formerly 4300:490)

**Gen Ed:** - Capstone

**CIVE:497 Honors Project (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Senior standing in Honors Program. Individual creative project or design relevant to civil engineering, supervised by faculty member of the department. (Formerly 4300:497)

## Classics (CLAS)

**CLAS:230 Sports & Society in Ancient Greece and Rome (3 Credits)**

A multimedia survey of ancient Greek and Roman sports, from the Olympics to gladiatorial games, and their connection to ancient and modern society. (Formerly 3200:230)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**CLAS:289 Mythology of Ancient Greece (3 Credits)**

Myth, legend and folktale in ancient Greece, with attention to religion and the transmission of Greek myth to Rome and the West. No foreign language necessary. (Formerly 3200:289)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**CLAS:361 The Literature of Greece (3 Credits)**

Prerequisite: HIST 210 or HIST 221. Major writers of ancient Greece and their influence on later European literature. No foreign language necessary. Required of majors. (Formerly 3200:361)

**CLAS:362 The Literature of Rome (3 Credits)**

Major writers of ancient Rome and their influence on later European literature. No foreign language necessary. Required of majors. (Formerly 3200:362)

**CLAS:363 Women in Ancient Greece and Rome (3 Credits)**

Examine women's lives in ancient Greece and Rome. Read their poetry, see them in ancient theatre, art, and philosophy, and in modern art and film. (Formerly 3200:363)

**CLAS:480 Reading & Research in Classical Studies (1-3 Credits)**

Directed reading and research for individual and small group study in any recognized area of classical studies. (Formerly 3200:480)

**CLAS:499 Honors Project in Classics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and permission. Independent study leading to completion of a senior honors thesis under the supervision of a member of the Department of Classics. (Formerly 3200:499)

## Communication - School of (COMM)

**COMM:101 Introduction to Communication (3 Credits)**

Survey of the field of communication. Topics will focus on the history, as well as the theories, constructs, and career opportunities of all sub disciplines. (Formerly 7600:101)

**COMM:105 Introduction to Public Speaking (3 Credits)**

Introduction to principles and practice of speaking by reading examples of speeches, studying techniques and methods employed and applying them in a variety of speaking situations. (Formerly 7600:105)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Speaking

**COMM:106 Effective Oral Communication (3 Credits)**

Principles of communication in speaker-audience, group and informal settings, and application of the principles in speeches, group discussions and other oral and written assignments. (Formerly 7600:106)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Speaking

**COMM:107 Essentials of Management Technology (3 Credits)**

Survey of management principles for business and other organizations. Emphasizes the basic management functions including planning, organizing, staffing, influencing, and control. (Formerly 2420:103)

**COMM:108 Introduction to Business (3 Credits)**

Survey of business emphasizing the nature of business and including entrepreneurship concepts, form, marketing, management, human resources, financial resources and production. (Formerly 2420:104)

**COMM:117 Small Business Development (3 Credits)**

Prerequisite: COMM 211 with a grade of C or better or permission. Introduction to small business and entrepreneurship: opportunities and qualifications for establishing, financing, operating and developing managerial policies and procedures for small business (Formerly 2420:117)

**COMM:125 Essentials of Personal Finance (3 Credits)**

Consumer decision making including credit and budgets, time value of money, major purchases, insurance, investments, tax planning, retirement and estate planning. (Formerly 2420:125)

**COMM:133 Essentials of Marketing Technology (3 Credits)**

Survey of marketing including its environment, buyer behavior, target market selection, product decision, distribution decisions, promotion decisions, pricing decisions and marketing management. (Formerly 2520:101)

**COMM:140 Keyboarding (2 Credits)**

Fundamentals in the operation of the keyboard; application emphasis on individual student needs such as resumes, application letters and forms, term reports, abstracting, etc. (Formerly 2420:140)

**COMM:202 Elements of Human Resource Management (3 Credits)**

Prerequisite: COMM 107 with a grade of C or better. Provides students with an overview of human resource management functions. Includes planning, EEO/AA, selection, development, legal environment, compensation, labor relations, appraisal systems and career planning. (Formerly 2420:202)

**COMM:204 Services Marketing (3 Credits)**

Prerequisites: COMM 260 and COMM 219. Corequisite: COMM 205. Focuses on quality customer service and its role in marketing. Evaluation of customers' needs and expectations, interpretation of customer data and creation of service strategies. (Formerly 2520:204)

**COMM:205 Retailing Fundamentals (3 Credits)**

Presents basic principles and practices of retailing operations, including site selection, buying, pricing and promotion practices. Use is made of extensive projects and investigations and actual retail operations. (Formerly 2520:202)

**COMM:206 Retail Promotion & Advertising (3 Credits)**

Prerequisite: COMM 205 or permission. Studio course in retail display and promotion techniques. Window, interior and point of purchase categories; principles of design as applied to commercial art; function in visual design, elements of design, color theory, lettering, printing process, layout to camera-ready art. (Formerly 2520:206)

**COMM:209 Principles of Sales (3 Credits)**

Prerequisite: COMM 133 or permission. Study of basic principles of selling, emphasizing individual demonstrations and sales projects. Includes review of sales function as integral part of marketing process. (Formerly 2520:212)

**COMM:210 Multiplatform Production (3 Credits)**

A basic introduction to theory and practice of single camera, photography, graphic and web production. (Formerly 7600:210)

**COMM:211 Essentials of Financial Accounting (3 Credits)**

Explores accounting concepts, basic accounting cycle, financial statement preparation and interpretation. Coverage of revenues, receivables, inventory, long-term assets/liabilities, debt/equity financing and financial ratios. (Formerly 2420:211)



**COMM:212 Basic Accounting II (3 Credits)**

Prerequisite: COMM 211 with a grade of C or better. Accounting as it applies to partnerships and corporations. Includes stocks, bonds, cash flows, financial statement analysis, and specialized accounting software. (Formerly 2420:212)

**COMM:213 Essentials of Management Accounting (3 Credits)**

Prerequisite: COMM 211 with a grade of C or better. Study of the interpretation and use of accounting data by management in decision making and the planning and controlling of business activities. (Formerly 2420:213)

**COMM:214 Essentials of Intermediate Accounting (3 Credits)**

Prerequisite: COMM 212 with a grade of C or better. Study of development of financial accounting theory and its application to problems of financial statement generation, account valuation, analysis of working capital, and determination of net income. (Formerly 2420:214)

**COMM:215 Computer Applications for Accounting Cycles (3 Credits)**

Prerequisites: COMM 212, COMM 213, and COMM 270 all with grades of C or better. Develops the skills of computer accounting as used in today's marketplace through hands on experience with general ledger accounting software. (Formerly 2420:215)

**COMM:216 Survey of Cost Accounting (3 Credits)**

Prerequisite: COMM 213 with a grade of C or better. Provides student with conceptual understanding of how accounting information is developed and used for product costing, decision making and managerial planning and control. (Formerly 2420:216)

**COMM:217 Survey of Taxation (3 Credits)**

Survey course of basic tax concepts, research, planning, and preparation of returns for individuals. Federal, state and local taxes are discussed. (Formerly 2420:217)

**COMM:218 Automated Bookkeeping (2 Credits)**

Corequisite: COMM 212. Provides experience with accounting software packages to include the processing of general ledger, accounts receivable, accounts payable, and payroll transactions. (Formerly 2420:218)

**COMM:219 Introduction to Public Relations (3 Credits)**

Introduction to public relations is a survey course that provides students with foundational information related to the study and practice of public relations. (Formerly 7600:219)

**COMM:220 Applied Accounting (3 Credits)**

Prerequisites: COMM 212, COMM 213, and COMM 270 all with grades of C or better. An applied orientation focusing on all accounting functions through adjusted trial balance and basic payroll skills. Emphasis on skills required for the Certified Bookkeeping designation. (Formerly 2420:220)

**COMM:221 Entrepreneurship Projects (3 Credits)**

Prerequisites: COMM 107, COMM 108, COMM 117, COMM 212, COMM 243, and COMM 270 all with grades of C or better. Requires the student to research, design, and complete a comprehensive business plan which will become the blueprint for a new or existing business. (Formerly 2420:227)

**COMM:222 Marketing Projects (3 Credits)**

Prerequisite: COMM 260. Students will prepare marketing projects by applying knowledge and skills learned in previous marketing courses. (Formerly 2520:221)

**COMM:226 Interviewing (3 Credits)**

Study and practical application of selected interviewing concepts associated with job interviewing, journalistic interviewing, and life review interviewing. (Formerly 7600:226)

**COMM:227 Non-Verbal Communication (3 Credits)**

Focused study of the principal aspects of nonverbal communication in public, group and interpersonal settings. (Formerly 7600:227)

**COMM:228 ZTV (1 Credit)**

Participation in the operations of the University television station. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:228)

**COMM:230 WZIP-FM (1 Credit)**

Participation in the operations of the University radio station. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:230)

**COMM:231 Forensics (1 Credit)**

Participation in the operations of the University forensics team. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:231)

**COMM:232 Buchtelite (1 Credit)**

Participation in the operations of the University newspaper. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:232)

**COMM:233 Tel-Buch (1 Credit)**

Participation in the operations of the University year book. \*Total repeats not to exceed eight credits. (Note: Students being paid salaries from Student Activity Funds are not eligible for credit.) (Formerly 7600:233)

**COMM:240 Marketing Internship (3 Credits)**

Prerequisites: COMM 133, COMM 260, COMM 205, and COMM 219. On-the-job work experience in a marketing environment in which students apply learned skills and concepts to practical business situations. Periodic reports and projects required as appropriate. (Formerly 2520:240)

**COMM:243 Survey in Finance (3 Credits)**

Prerequisites: 2420:170 and COMM 211 with grades of C or better. Survey of field including instruments, procedures, practices and institutions. Emphasis on basic principles. (Formerly 2420:243)

**COMM:244 Business Management Accounting Internship (3 Credits)**

Prerequisites: [COMM 212 and COMM 213] or [COMM 215 and COMM 216] with grades of C or better. An accounting field experience exposing the student to the actual accounting environment and general workplace. (Formerly 2420:245)

**COMM:245 Argumentation (3 Credits)**

Study of process of developing, presenting and defending inferences and arguments in oral communication setting. Includes study and practice of evidence, reasoning, case construction, refutation and rebuttal. (Formerly 7600:245)

**COMM:246 Business Management Internship (3 Credits)**

Prerequisites: [COMM 107, COMM 108, COMM 212, COMM 280 all with grades of C or better], ENTRE 201, SOWK 230, and sophomore or greater standing. A management field experience exposing the student to the actual management environment and general workplace. (Formerly 2420:246)

**COMM:250 Problems in Business Management (3 Credits)**

Prerequisites: COMM 107, COMM 108, COMM 212, COMM 243, COMM 270, and COMM 133 all with grades of C or better. Capstone course studies the development of solutions and the formulation of policies to solve business problems, emphasizes case studies, group projects, oral and written presentations. (Formerly 2420:250)

**COMM:254 Sales Management Technology (3 Credits)**

Prerequisite: COMM 219. Process relating to the formulation, implementation, and control of a strategic sales program. Students will learn how to select, evaluate, and motivate a sales force. (Formerly 2520:254)

**COMM:260 Principles of Advertising (3 Credits)**

Prerequisite: COMM 133 or MKTG 205. Focuses on principles and functions of advertising, creation and evaluation of advertisements, research of target market, message selection strategy, and media placement options. (Formerly 2520:203)

**COMM:263 Professional Communications and Presentations (3 Credits)**

Application of the principles of communication in speeches, business presentations, group discussions, and business documents. (Formerly 2420:263)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Speaking

**COMM:270 Business Software Applications (3 Credits)**

Prerequisite: CISS 105; Wayne College students - COMM 125, 2540:241, and 2540:253. Use of business application software and critical thinking skills to solve business problems. Word processing, spreadsheets, database, presentation software, integration of applications, and the Internet. (Formerly 2420:270)

**COMM:274 Introduction to the Media Industries (3 Credits)**

An introduction to the media industries concentrating on industry structure and business models with a particular emphasis on media convergence and distribution. (Formerly 7600:274)

**COMM:280 Essentials of Business Law (3 Credits)**

History of the law and the judicial system, torts and criminal law affecting business, contracts with emphasis on sales under the UCC, and commercial paper. (Formerly 2420:280)

**COMM:290 Special Topics: Business Management Technology (1-3 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in business management technology. (May be repeated for a total of four credits) (Formerly 2420:290)

**COMM:300 Newswriting Across the Media (3 Credits)**

Prerequisite: completion of General Education English Composition Requirement with a grade of C or better or permission. Concentration on what constitutes news, legal and ethical aspects of what to print/broadcast and writing news stories for print and broadcast media. (Formerly 7600:300)

**COMM:301 Advanced Newswriting (3 Credits)**

Prerequisite: Admitted to a four year degree granting college and COMM 300. Advanced course in writing and editing news, features and analysis for print media. Behavioral approach to communication of information and ideas. (Formerly 7600:301)

**COMM:303 Public Relations Writing (3 Credits)**

Prerequisite or Corequisite: COMM 219. Introduction of writing skills required by public relations practitioners emphasizing different approaches for specific publics and specific media. (Formerly 7600:303)

**COMM:304 Information Gathering & Editing (3 Credits)**

Prerequisite: Ability to type. Editing stories and photographs and writing headlines for print and online. Gathering information from primary and secondary sources. (Formerly 7600:304)

**COMM:305 Communication Theory (3 Credits)**

Prerequisite: COMM 101. Examination of the theoretical foundations of the communication discipline. Historical roots, major theory building perspectives and a review of contemporary theories and applications in communication contexts. (Formerly 7600:305)

**COMM:307 Principles of Social Media (3 Credits)**

This course provides students with a thorough understanding of social media as it relates to the tools, history, theories, ethics and practice of communication. (Formerly 7600:209)

**COMM:309 Public Relations Publications (3 Credits)**

Preparation of publications used as communication tools in public relations, advertising and organizations. Emphasis upon design, layout and technology. (Formerly 7600:309)

**COMM:317 Topics in Media Production (3 Credits)**

Variable topics in media production including audio, video, digital. Repeatable with a change in topic, maximum 9 credits. (Formerly 7600:317)

**COMM:324 Interpersonal Communication (3 Credits)**

Theory and practice in interpersonal communication concepts and principles. Special topics in communication apprehension, assertive communication, communication dyads and triads, and transactional communication. (Formerly 7600:235)

**COMM:325 Intercultural Communication (3 Credits)**

Study of human communication processes between individuals in culturally diverse contexts, both domestically and internationally, with an emphasis on analysis and application. (Formerly 7600:325)

**Gen Ed:** - Domestic Diversity

**COMM:330 Principles of Organizational Supervision (3 Credits)**

Competencies required for successful transition from individual contributor to supervisor. Emphasis on working effectively with others and self-development as a leader. (Formerly 2420:300)

**COMM:331 Information Design (3 Credits)**

Prerequisites: [ENGL 111 and ENGL 112] or equivalent. Principles of visual rhetoric and practice in communicating with text and graphics. Examines the role of design in a variety of workplace communication documents. (Formerly 2420:301)

**COMM:333 Ethics and Law in Business (3 Credits)**

Prerequisite: Junior or greater standing. Workplace ethical principles and legal issues such as liability, safety, quality, honesty, and confidentiality. Case studies and projects explore global, legal, and technological issues affecting employee interaction in the workplace. (Formerly 2420:302)

**COMM:334 Leadership Principles & Practices (3 Credits)**

Pre/Corequisite: COMM 330. Contemporary perspectives and issues in leadership and supervision. Development of effective leadership characteristics. (Formerly 2420:310)

**COMM:335 Corporate Social Responsibility and Leadership (3 Credits)**

Pre/Corequisite: COMM 330 with a C or better. Theory and best practices in corporate social responsibility, community service and leadership in local, national and global settings. Identify leadership opportunities for future contributions. (Formerly 2420:311)

**COMM:336 Global Business Communication (3 Credits)**

Prerequisite: Completion of 48 credit hours. Emphasis on organizational and interpersonal communication needed in an integrated world economy. Provides an overview of business communication to effectively conduct global business and negotiations. (Formerly 2420:312)

**COMM:344 Small Group Communication (3 Credits)**

Prerequisite: Junior or higher standing. This course explores the dynamics of small group communication. Students will learn how to become effective members of groups by practicing course concepts and theories in assignments. (Formerly 7600:344)

**COMM:345 Advanced Presentational Communication (3 Credits)**

Prerequisite: COMM 105 or COMM 263. Continued development of audience analysis, research, style, and delivery to improve oral communication skills for a variety of civic and organizational purposes. (Formerly 7600:345)

**COMM:352 Persuasion (3 Credits)**

Emphasis on understanding persuasion theory and practice. Includes information analysis of motivational appeals and introduction to propaganda analysis. (Formerly 7600:252)

**COMM:355 Freedom of Speech (3 Credits)**

Discussion and analysis of the Constitution's free speech guarantee; contemporary issues in freedom of speech; role of the media in free speech issues. (Formerly 7600:355)

**COMM:356 Rhetorical Criticism (3 Credits)**

Prerequisite: COMM 360. Identifies principal textual and contextual elements of public discourse and presents various theories and models to be applied in studying rhetorical acts. (Formerly 7600:356)

**COMM:360 Theories of Rhetoric (3 Credits)**

Theories of Rhetoric exposes students to 2,000 years of thought on rhetoric and meaning. Students explore the relationship between knowledge, truth and rhetoric. (Formerly 7600:360)

**COMM:364 Legal Issues in Media (3 Credits)**

Concentration on government regulations and legal requirements in production of broadcasting, film, and print media. Particular emphasis on copyright. (Formerly 7600:284)

**COMM:368 Basic Audio & Video Editing (3 Credits)**

Prerequisite: Admitted to a four year degree granting college. A basic practical introduction to audio and video editing and the Avid Editing system in the MediaNet environment. (Formerly 7600:368)

**COMM:378 Topics in Media History (3 Credits)**

Prerequisite: Admitted to a four year degree granting college. In-depth study of topics in media history and genre. Repeatable with a change in topic (9 credits maximum). (Formerly 7600:378)

**COMM:384 Communication Research (3 Credits)**

Prerequisites: COMM 101 with a grade of C or better. Fundamental concepts of communication research methods, and the analysis, application, and interpretation of data in communication and media operations. (Formerly 7600:384)

**COMM:398 Honors Project Preparatory (1 Credit)**

Prerequisite: junior standing, honors students only. This course prepares honors students to begin work on their senior honors project. Students will learn how to do background research, literature reviews, work with human subjects, and School of Communication requirements. At the end of the semester, students will have their proposal ready for submission to the Honors College. (Formerly 7600:398)

**COMM:404 Public Relations Cases (3 Credits)**

Prerequisite or corequisite: COMM 219. Application of principles of public relations profession in an actual organizational setting. (Formerly 7600:404)

**COMM:405 Media Copywriting (3 Credits)**

Prerequisite: COMM 309. Selected communication theories and research techniques used to plan, write and analyze commercial messages. Emphasis will be placed on selection of audience, medium, appeal, writing style and evaluation of efforts. (Formerly 7600:405)

**COMM:406 Public Relations Theory (3 Credits)**

Prerequisite: COMM 219. Study and practical application of communication concepts, theories and skills relevant to public relations programs in businesses and nonprofit organizations. (Formerly 7600:406)

**COMM:408 Women, Minorities & News (3 Credits)**

Prerequisites: COMM 300 and admission to a four year degree granting college. From a professional journalism perspective, this course provides historical analysis of diversity in the newsroom and the news. Students produce new content that addresses diversity. (Formerly 7600:408)

**COMM:409 Public Relations Strategic Campaigns (3 Credits)**

Prerequisite: COMM 219. This course allows students to apply knowledge of public relations practice, history, theories, ethics and strategic planning to create real-world public relations campaigns. (Formerly 7600:409)

**COMM:429 Advanced Strategic Social Media (3 Credits)**

Prerequisite: COMM 307. Students will learn and apply knowledge of professional social media including theories, ethics, policy, and best practices to solve real-world social media problems. (Formerly 7600:429)

**COMM:430 Leading Project Teams (3 Credits)**

Prerequisite: COMM 334 with the grade of C or better. Examines and applies the operational and human aspects of project team management from conception to completion. (Formerly 2420:401)

**COMM:431 Operational Assessments and Improvements (3 Credits)**

Prerequisites: [STAT 250 or STAT 260] and COMM 334 with a grade of C or better. Methods for conducting business process assessments and evaluating results in organizations. (Formerly 2420:402)

**COMM:432 Human Resources Development (3 Credits)**

Prerequisite: COMM 334 with a grade of C or better. Overview of current theories and best practices in human capital development. (Formerly 2420:420)

**COMM:435 Organizational Communication (3 Credits)**

Prerequisite: COMM 101 or COMM 330. Overview of theories and approaches for understanding communication flow and practices in organizations, including interdepartmental, networks, superior-subordinate, formal and informal communication. (Formerly 7600:435)

**COMM:436 Analyzing Organizational Communication (3 Credits)**

Prerequisites: [COMM 384 or COMM 331] and COMM 435, or permission. Methodology for in-depth analysis and application of communication in organizations; team building; conflict management, communication flow. Individual and group projects; simulations. (Formerly 7600:436)

**COMM:437 Training Methods in Communication (3 Credits)**

Prerequisite: COMM 345 or COMM 435 or permission. Principles and concepts in the design and delivery of communication training programs; integration of theory and methodology; presentation skills; matching methods and learner needs. (Formerly 7600:437)

**COMM:438 Health Communication (3 Credits)**

Prerequisite: Admitted to a four year degree granting college. The course presents an overview of health communication theory and research issues in interpersonal, small group, organizational, public relations, and mass media contexts. (Formerly 7600:438)

**COMM:439 Independent Study: Communication (1-12 Credits)**

(May be repeated for a total of 12 credits) Prerequisites: Admitted to a four year degree granting college except CAST, permission of faculty. Directed independent readings, research, projects and productions. Written proposal must be submitted before permission is granted. Appropriate documentation of work required. (Formerly 7600:439)

**COMM:444 Communication & Conflict (3 Credits)**

Prerequisite: COMM 101 or COMM 330. Explores roles of communication & conflict in personal and work relationships. Emphasis placed on application of theories and strategies for conflict resolution from a communication perspective. (Formerly 7600:444)

**COMM:450 Special Topics in Communication (3 Credits)**

(May be repeated for a total of nine credits) Special interest topics in mass communication, journalism, or communication, supplementing courses listed in University Bulletin. See department for current listing of offerings. (Formerly 7600:450)

**COMM:457 Rhetoric in Contemporary Culture (3 Credits)**

Prerequisite: COMM 360 & COMM 356. Rhetoric in Contemporary Culture serves as an advanced course in rhetorical criticism. Students apply critical methods to contemporary issues surrounding political, popular, and vernacular discourses. (Formerly 7600:457)

**COMM:459 Leadership and Communication (3 Credits)**

Prerequisite: Admitted to a four year degree granting college except CAST. Theories of leadership and communication across public, organizational, small group, interpersonal, and political contexts. Assessments tools provided. Guest speakers. (Formerly 7600:459)

**COMM:468 Advanced Audio and Video Editing (3 Credits)**

Prerequisite: COMM 368. A study of film and video editing. It provides practical experience and exposure to the various creative approaches and techniques of film / video editing. (Formerly 7600:468)

**COMM:472 Video Production (3 Credits)**

Prerequisite or corequisite: COMM 368. Theory and practice of digital video; development of professional skills in lighting, use of lenses, visual composition and sound recording for Single Camera applications (Formerly 7600:372)

**COMM:474 Media Theory (3 Credits)**

Prerequisites: COMM 101. A review of mass communication theories and their applications in addressing major issues relevant to media content, media audience and media effects. (Formerly 7600:474)

**COMM:475 Political Communication (3 Credits)**

Students explore the relationship between politicians, citizens, and media. Topics include media coverage, campaign technologies, advertising, debates, engagement, rhetoric, and attitudes. (Formerly 7600:475)

**COMM:480 Communication Internship (3-6 Credits)**

Prerequisites: 24 credits in Communication, 2.3 GPA in Communication and permission. Supervised experience and on-the-job training. Written permission prior to the semester enrolled is necessary. Repeatable up to a maximum 6 credits. (Formerly 7600:480)

**COMM:481 Film as Art: An Introduction to the Film Form (3 Credits)**

A study of the role and function of Cinematography, Editing, Sound, and Mise-en-scene as they shape the meaning of the film, within the context of the traditional / non-traditional narratives and the documentary structure. (Formerly 7600:481)

**COMM:485 Honors Project in Communication (3 Credits)**

Prerequisites: COMM 398, approval of honors preceptor. Independent study project leading to completion of honors research, creative or service project. (Formerly 7600:485)

**COMM:486 Media Management & Leadership (3 Credits)**

Prerequisite: COMM 384. An intensive overview of media management and leadership principles and applications of these principles in addressing issues related to entrepreneurship, ethics, globalization and media convergence. (Formerly 7600:486)

**COMM:487 Advanced Topics in Media Writing (3 Credits)**

Prerequisite: COMM 300. Advanced study in media writing. Topics include: script writing, broadcast newswriting, new media writing, etc. Repeatable with a change in topic, maximum 12 credit hours. (Formerly 7600:487)

**COMM:490 Communication Workshop (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Admitted to a four year degree granting college. Group study or group projects investigating a particular phase of media not covered by other courses in curriculum. (Formerly 7600:490)

**COMM:498 Senior Seminar in Organizational Supervision (3 Credits)**

Prerequisite: COMM 431 with a grade of C or better. Integration and application of professional knowledge, skills, and technologies to organizational issues. (Formerly 2420:421)

**COMM:499 Capstone in Communication (3 Credits)**

Prerequisites: [COMM 101 or COMM 330] and [COMM 384 or COMM 331] and senior standing. Capstone in communication integrates theories, concepts, and skills: provides interdisciplinary work, and applied focus; and culminates in a project, paper, or production. Topics vary. (Formerly 7600:499)

## Computer Engineering (CPEN)

**CPEN:101 Tools for Computer Engineering (3 Credits)**

Pre/Corequisite: MATH 221 or MATH 149. Orientation to degree programs and design practice in electrical and computer engineering. Introduction to computer applications and resources for engineering studies. (Formerly 4450:101)

**CPEN:208 Programming for Engineers (3 Credits)**

Prerequisite: ELEN 101 or permission. Introduction to programming. Environment and tools. C programming language. Machine level data forms and organization. (Formerly 4450:208)

**CPEN:210 Computational Problem Solving (3 Credits)**

Pre/Corequisites: [CPEN 208 or CPSC 209] and MATH 335. Elements of computation required for modeling and analysis of engineering systems. Complex algebra, linear systems of equations, numerical calculus, difference and differential equations, solution of nonlinear equations. (Formerly 4450:210)

**CPEN:220 Digital Logic Design (4 Credits)**

Corequisites: ELEN 101 or CPEN 101 or BMEN 101. Boolean algebra and simplification of logic functions. Combinational and synchronous sequential circuits. Laboratory projects include design of digital systems with hardware description language and simulation. (Formerly 4450:220)

**CPEN:221 Digital Logic Design (3 Credits)**

Pre/Corequisites: ELEN 101 or CPEN 101 or BMEN 101. Boolean algebra and simplification of logic functions. Combinational and sequential circuits. Finite-state machine descriptions. (Formerly 4450:221)

**CPEN:222 Digital Logic Design Laboratory (1 Credit)**

Pre/Corequisite: CPEN 221. Design of digital systems with hardware description language and simulation. (Formerly 4450:222)

**CPEN:301 Undergraduate Research I: Computer Engineering (1 Credit)**

Prerequisites: completion of [ELEN 101 or CPEN 101], ELEN 230, ELEN 231, ELEN 330, ELEN 332 and CPEN 220 with a combined average grade of 3.0 or higher, admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4450:301)

**CPEN:302 Undergraduate Research II: Computer Engineering (1 Credit)**

Prerequisites: [ELEN 301 or CPEN 301], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4450:302)

**CPEN:303 Undergraduate Research III: Computer Engineering (1 Credit)**

Prerequisites: [ELEN 302 or CPEN 302], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report to the department, and presentation of work in a research venue outside the department. (Formerly 4450:302)

**CPEN:304 Undergraduate Research IV: Computer Engineering (1 Credit)**  
(May be repeated. May not be applied to degree requirements.)

Prerequisite: CPEN 303 or ELEN 303, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4450:304)

**CPEN:309 Design Project Seminar - Computer Engineering (1 Credit)**

Prerequisites: Junior or higher standing and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: [CPSC 426 or CPEN 325], CPEN 367, [CPEN 420 or CPEN 427], CPEN 422, and CPEN 440. Engineering capstone project selection and proposal, including preliminary technical specifications. Professional ethics. Intellectual property. Societal impact issues in engineering design. (Formerly 4450:309)

**CPEN:320 Computer Systems (3 Credits)**

Prerequisites: [CPSC 209 or CPEN 208] and [CPEN 220 or CPEN 221 or MATH 208]. Introduces the design and architecture of modern computer systems. Data and instruction representation. Conventional computer organization. Hardware and software design processes. The hardware/software interface. (Formerly 4450:320)

**CPEN:325 Operating Systems Concepts (3 Credits)**

Prerequisites: CPEN 320, CPSC 210. Processes and threads. Process communication and resource sharing. Deadlock resolution. Memory management. File systems. Introduction to network operating systems. (Formerly 4450:325)

**CPEN:367 VLSI Design (3 Credits)**

Prerequisites: ELEN 360 and admission to an engineering major within the College of Engineering and Polymer Science. Digital logic circuits. Very large scale integration (VLSI) fabrication processes and layout design. Delay and power of digital circuits. Latches and flip-flops in VLSI. Memory design. System-level design issues. Design project. (Formerly 4450:367)

**CPEN:401 Senior Design Project I - Computer Engineering (3 Credits)**

Prerequisites: CPEN 309, senior standing, admission to an engineering major within the College of Engineering and Polymer Science, and completion of [CPSC 426 or CPEN 325], CPEN 367, [CPEN 420 or CPEN 427], CPEN 422, and CPEN 440 with a combined average grade of 2.0 or higher. Design and preparation phase of an engineering team project. System specification, design, and simulations; ordering of components; subsystem implementations. Requires project presentations and report. (Formerly 4450:401)

**Gen Ed:** - Capstone

**CPEN:402 Senior Design Project II - Computer Engineering (3 Credits)**

Prerequisites: CPEN 401 and admission to an engineering major within the College of Engineering and Polymer Science. Implementation and evaluation phases of an engineering design project. Requires a project presentation and report. (Formerly 4450:402)

**Gen Ed:** - Complex Issues Facing Society

**CPEN:410 Embedded Scientific Computing (3 Credits)**

Prerequisites: [CPEN 208 or CPSC 209] and ELEN 340. Fixed point, floating point representation and coding. Processor/DSP implementations. Assemblers, C language semantics. Adapting scientific library routines for embedded use. Minimizing complexity. Ill-conditioned problems. (Formerly 4450:410)

**CPEN:415 System Simulation (3 Credits)**

Prerequisite: ELEN 371 or CPEN 440. Computer simulation of dynamic systems. Discrete system stability, linear multistep and Runge-Kutta methods, nonlinear systems, stiff systems, distributed systems and real-time computing. (Formerly 4450:415)

**CPEN:420 Computer Systems Design (3 Credits)**

Prerequisite: CPEN 320. Design of advanced processors at the microarchitecture level. Pipelining. Superscalar, vector and VLIW architectures. Instruction-level parallelism. Compiler support. Multiprocessor architectures. (Formerly 4450:420)

**CPEN:422 Embedded Systems Interfacing (3 Credits)**

Prerequisites: [CPSC 209 or CPEN 208], CPEN 220, ELEN 332 and admission to an engineering major within the College of Engineering and Polymer Science. Microcontroller structures and embedded peripherals. Interfaces to physical environments. Software access to peripherals including timers, ADCs and DACs. Synchronous and asynchronous communications. Interrupts. Real-time operating systems. (Formerly 4450:422)

**CPEN:427 Computer Networks (3 Credits)**

Prerequisite: CPEN 320; CPEN 325 or CPSC 426. Network architecture and protocol layering. Network design principles, communication protocols, and performance measures. Socket programming, routing, error detection and correction, access control, multimedia networking. (Formerly 4450:427)

**CPEN:440 Digital Signal Processing (3 Credits)**

Prerequisites: ELEN 340 and admission to an engineering major within the College of Engineering and Polymer Science. Signal sampling and reconstruction; data-converter models. Unilateral and bilateral z transforms. Discrete Fourier Transform (DFT); Fast Fourier Transform (FFT). Digital filter structures and design methods. (Formerly 4450:440)

**CPEN:462 Analog Integrated Circuit Design (3 Credits)**

Prerequisite: ELEN 360. CMOS processes and layout; amplifiers, current mirrors, and comparators; current, voltage, and bandgap references; switched capacitor circuits. Frequency and noise analysis techniques. (Formerly 4450:462)

**CPEN:465 Programmable Logic (3 Credits)**

Prerequisites: [CPEN 220 or {CPEN 221 and CPEN 222}], and [CPSC 209 or CPEN 208]. Digital design with programmable devices. PLD and FPGA architectures. Logic design and technology mapping tools. (Formerly 4450:465)

**CPEN:467 VLSI Circuits & Systems (3 Credits)**

Prerequisite: CPEN 367. High performance adders and multipliers for very large scale integration (VLSI) systems. Architectural synthesis. Design for high performance, low power, and testability. (Formerly 4450:467)

**CPEN:498 Special Topics: Computer Engineering (1-3 Credits)**

(May be taken more than once) Prerequisite: Permission of department chair. Special topics in computer engineering. (Formerly 4450:498)

## Computer Information Systems (CISS)

**CISS:105 Introduction to Computers and Application Software (3 Credits)**

Overview of basic computer concepts, electronic mail and Internet terminologies. Introductory-level instruction and hands-on experience in word processing, spreadsheet, database and presentation software. (Formerly 2440:105)

**CISS:121 Introduction of Logic/Programming (3 Credits)**

Prerequisite: CISS 105 with a grade of C or better or placement test. An introduction to business problem solving using computer-based solutions. Topics include structured design, documentation and modularity. Includes a component of hands-on programming. (Formerly 2440:121)

**CISS:125 Spreadsheet Software (2 Credits)**

Prerequisite: CISS 105 with a grade of C or better or placement test. Emphasizes mastery of spreadsheet applications using Excel. (Formerly 2440:125)

**CISS:134 Cybersecurity Fundamentals (3 Credits)**

Prerequisite: CISS 105 with a grade of C or better or placement test. Fundamentals of malware, social theories, protocols, firewalls, computer forensics, intrusion detection, prevention and containment incidents, incident response, and cybersecurity policy. (Formerly 2440:134)

**CISS:140 Internet Tools (3 Credits)**

Prerequisite: CISS 105 with a grade of C or better or placement test. Students will learn to create web pages using HTML and enhance their documents by including hyperlinks, tables, forms, frames and images in their HTML code. (Formerly 2440:140)

**CISS:141 Web Server Administration (3 Credits)**

Prerequisite: CISS 105 with a grade of C or better or placement test. Provides Web server administration guidelines such as selecting software/hardware, domain name registration, analyzing security/legal issues, and implementing marketing strategies. (Formerly 2440:141)

**CISS:145 Introduction to Unix/Linux (3 Credits)**

Prerequisite: CISS 105 with a grade of C or better or placement test. This course explores the vital functions that an operating system performs. A multi-user operating system is studied from a functional and hands-on approach. (Formerly 2440:145)

**CISS:160 JAVA Programming (3 Credits)**

Prerequisite: CISS 121 with a grade of C or better. Course introduces the JAVA programming language. Programming techniques are demonstrated through the coding, testing and debugging of JAVA applications and applets. (Formerly 2440:160)

**CISS:170 Visual BASIC (3 Credits)**

Prerequisite: CISS 121 with a grade of C or better. Course includes hands-on experience with Visual BASIC, design of Graphical User Interface (GUI) applications, event-driven programming, linking of windows, and accessing relational databases. (Formerly 2440:170)

**CISS:180 Introduction to Database Management (3 Credits)**

Prerequisite: CISS 121 with a grade of C or better. Overview of database system models and functions. Covers introduction to database design and relational database definition and manipulation using SQL. (Formerly 2440:180)

**CISS:201 Networking Basics (3 Credits)**

Prerequisite: CISS 105 with a grade of C or better or placement exam. The introductory course in networking. It includes study of the common network protocols, structures, and models. Basic router and switch configurations are introduced. (Formerly 2440:201)

**CISS:202 Router and Routing Basics (3 Credits)**

Prerequisite: CISS 201 with a grade of C or better. The second course to networking. It covers basic router configuration as well as routed and routing protocols. (Formerly 2440:202)

**CISS:203 Switching Basics and Wireless (3 Credits)**

Prerequisites: CISS 201 and CISS 202 with a grade of C or better in both. The third of four courses leading to the CCNA certification. The course covers switching basics and basic wireless networking. (Formerly 2440:203)

**CISS:204 WAN Technologies (3 Credits)**

Prerequisites: CISS 202 and CISS 203 (each with a grade of C or better). The fourth of four courses leading to the CCNA certification. Topics covered include IP services and Wide Area Network theory and design. (Formerly 2440:204)

**CISS:210 Client/Server Programming (3 Credits)**

Prerequisite: CISS 180 with a grade of C- or better. Introduces student to client/server programming concepts and implementations. Includes hands-on experience to show integration of databases in client-server program development. (Formerly 2440:210)

**CISS:211 Interactive Web Programming (3 Credits)**

Prerequisites: CISS 121 and CISS 140 (each with a grade of C or better). Provides students with instruction on interactive Web programming using XML and DHTML (HTML/XHTML/HTML5, CSS, and Web scripting). (Formerly 2440:211)

**CISS:212 Multimedia & Interactive Web Elements (3 Credits)**

Prerequisite: CISS 140 with a grade of C or better. Reviews and demonstrates web tools and techniques like RealAudio, Shockwave, QuickTime, video conferencing and other dynamic graphical elements to enhance Web-based communication. Multimedia software may change to reflect current technology. (Formerly 2440:212)

**CISS:240 Computer Information Systems Internship (3 Credits)**

Prerequisites: CISS 241 or [CISS 202 and CISS 247] each with a grade of C- or better and permission of department. Provides student experience in computing/information technology in the workplace. (Formerly 2440:240)

**CISS:241 Systems Analysis & Design (3 Credits)**

Prerequisites: CISS 180 and [CISS 160 or CISS 170 or CISS 256], each with a grade of C or better. Covers all phases of business systems analysis, design, development, and implementation. Such principles as system flowcharting and file and document design emphasized. (Formerly 2440:241)

**CISS:247 Hardware Support (3 Credits)**

Prerequisite: Admission to program or permission of the program director. This course introduces the student to the basic skills required to troubleshoot, maintain and repair computers. (Formerly 2440:247)

**CISS:248 Server Hardware Support (3 Credits)**

Prerequisite: CISS 247 with a grade of C or better. This course introduces the student to server hardware and expands student knowledge of client hardware. (Formerly 2440:248)

**CISS:251 CIS Projects (3 Credits)**

Prerequisite: CISS 241 with a grade of C or better or permission. Using a simulated work environment, project teams are set up and required to analyze an unstructured problem, prepare alternative designs and implement a solution. (Formerly 2440:251)

**CISS:256 C++ Programming (3 Credits)**

Prerequisite: CISS 121 with a grade of C or better. This course explores object-oriented programming through C++ program development. (Formerly 2440:256)

**CISS:282 Microsoft Networking II (3 Credits)**

Prerequisite: 2440:281 with a grade of C or better. Provides the knowledge and skills necessary to manage and maintain computers with the Windows Server 2008 Network Operating System. This course will also help prepare you to pass the MCTS Exam. (Formerly 2440:282)

**CISS:283 Microsoft Networking III (3 Credits)**

Prerequisite: CISS 282 with a grade of C or better. Provides the knowledge and skills necessary to manage and maintain an active directory service hosted by the Server 2008 Network Operating System. This course also helps prepare the student to pass the MCTS Exam. (Formerly 2440:283)

**CISS:284 Microsoft Networking IV (3 Credits)**

Prerequisite: CISS 283 with a grade of C or better or passing score on the 70-640 Microsoft Certification Exam. This course will provide you with the knowledge and skill necessary to install, configure, manage and maintain the server services provided with Server 2008. (Formerly 2440:284)

**CISS:290 Special Topics: Computer Information Systems (1-5 Credits)**

Selected topics or subject areas of interest in computer information systems. (Formerly 2440:290)

**CISS:300 Network Authentication and Security (3 Credits)**

Prerequisites: CISS 204 with a grade of C or better and junior or better standing. This course focuses on network security issues related to conducting business over the Internet, including authentication, authorization, and firewalls. (Formerly 2440:300)

**CISS:303 Voice, Data, and Video (3 Credits)**

Prerequisites: CISS 204 with a grade of C or better and junior or better standing. This course focuses on network issues related to the integration of voice, data, and video over the same network media and equipment. (Formerly 2440:303)

**CISS:306 Ethics & Law in Information Technology (3 Credits)**

Prerequisite: Junior or greater standing. This course is designed to introduce the student to the central issues concerning intellectual property, privacy, and copyright law as it pertains to the development and distribution of software systems. (Formerly 2440:306)

**CISS:310 Wireless Networking (3 Credits)**

Prerequisite: CISS 204 with a grade of C or better or permission. This course provides students with various wireless networking technologies. (Formerly 2440:310)

**CISS:311 Client/Server Programming II (3 Credits)**

Prerequisite: CISS 210 with a grade of C or better. Discusses tools for client-server programming, distributed computing, socket programming, and security implementation. (Formerly 2440:311)

**CISS:321 Server-Side Scripting (3 Credits)**

Prerequisites: CISS 121 and CISS 140, both with a grade of C or better. This course provides students with instruction on using server-side scripting languages to develop interactive client/server web-based applications. (Formerly 2440:321)

**CISS:331 Programming for Cybersecurity (3 Credits)**

Prerequisites: CISS 121 and CISS 145 with grades of C or better. This course will introduce basic programming techniques used for ethical hacking using the Linux Operating System and other tools that are commonly used in cybersecurity. (Formerly 2440:331)

**CISS:360 Java Programming II (3 Credits)**

Prerequisite: CISS 160 with a grade of C or better. This course covers advanced object-oriented programming concepts, GUI programming, web application programming, network and security programming, JavaBeans and explores aggregations. (Formerly 2440:360)

**CISS:365 E-Business Application Development (3 Credits)**

Prerequisites: CISS 211 and CISS 321, both with a grade of C or better. This course covers web programming techniques to develop Web-based e-business solution and covers e-business models and business issues. (Formerly 2440:365)

**CISS:370 Visual Basic Programming II (3 Credits)**

Prerequisite: CISS 170 with a grade of C or better. This course explores object-oriented programming through Visual Basic program development at a more advanced level, with more attention to business applications. (Formerly 2440:370)

**CISS:388 Advanced UNIX/Linux (3 Credits)**

Prerequisites: CISS 145 with a grade of C or better and junior or greater standing. This course provides students with the necessary knowledge and skills to perform basic administrative tasks on a UNIX/Linux operating system. (Formerly 2440:388)

**CISS:400 Advanced Routing (4 Credits)**

Prerequisites: CISS 201, CISS 202, CISS 203, CISS 204, CISS 300, all with a grade of C or better, and MATH 154; or possess a current CCNA certification and be able to configure a router to the CCNA standards. This course focuses on advanced routing protocols and features and complies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Advanced Routing course. (Formerly 2440:400)

**CISS:401 Multilayer Switching (3 Credits)**

Prerequisites: Must have a current CCNA certification and be able to program a router to the CCNA standards (requires permission), or must have successfully completed all four Cisco Networking Academy CCNA courses from an accredited academy (CISS 201, CISS 202, CISS 203, CISS 204, all with a grade of C or better). This course focuses on switching protocols and features. This course complies with the content of the Cisco Academy Cisco Certified Network Profession (CCNP) Switching course. (Formerly 2440:401)

**CISS:402 Troubleshooting Complex IP-based Networks (4 Credits)**

Prerequisites: CISS 400 and CISS 401 with grades of C or better or permission. This course focuses on methodologies and hands-on skills needed to maintain and troubleshoot complex IP networks. (Formerly 2440:402)

**CISS:430 Network Monitoring and Management (3 Credits)**

Prerequisite: CISS 204 with a grade of C or better or junior or greater standing. This course provides students the basic theory and practical application of network monitoring and management skills. (Formerly 2440:430)

**CISS:431 UNIX-based Systems Security (3 Credits)**

Prerequisites: CISS 388 with a grade of C or better and junior or greater standing. This course will introduce the various methods used to secure UNIX-based operating systems (Apple iOS and Android Operating System) on a computer network. (Formerly 2440:431)

**CISS:441 Cyber Security (3 Credits)**

Prerequisites: MATH 361, DGFR 441, and CISS 388 with a grades of C or better and junior or greater standing. This course will address issues involving hacking, malware, social theories, protocols, firewalls, intrusion detection, the prevention and containment of intrusion incidents, the incident response process, and computer forensic examination. (Formerly 2440:441)

**CISS:450 Applied Data Mining (3 Credits)**

Prerequisites: MATH 345 and junior or greater standing. This course is designed to introduce the student to the central issues in business data mining. (Formerly 2440:450)

**CISS:451 Senior Programming Projects (3 Credits)**

Prerequisite: Senior or greater standing. This course is the capstone course where senior students will apply learned material by simulating a realistic work environment. (Formerly 2440:451)

**CISS:452 CIS Practicum (3 Credits)**

Prerequisite: Permission. Provides students with experience in computer information systems operation and maintenance in the workplace. Practicum must be relevant to the specialization area. (Formerly 2440:452)

**CISS:456 C++ Programming II (3 Credits)**

Prerequisite: CISS 256 with a grade of C or better. This course explores object-oriented programming through C++ program development at a more advanced level. Also considers Visual programming and connection to databases. (Formerly 2440:456)

**CISS:465 Data Communications & Networking (3 Credits)**

Prerequisite: Junior or greater standing. Introduces students to business data communication and networking concepts. The OSI model, various network configuration and popular industry communication protocols are explored at an advanced level. (Formerly 2440:465)

**CISS:470 Database Management II (3 Credits)**

Prerequisite: CISS 180 with a grade of C or better. Covers advanced database design, definition, manipulation, and administration tasks with emphasis placed on the relational model, the object-oriented model, and client/server systems. (Formerly 2440:470)

**CISS:480 Current Topics in Computer Information Systems (3 Credits)**

Prerequisite: Permission. Seminar in topics of current interest in information technology or special individual topics in information technology. (Formerly 2440:480)

**CISS:490 CIS Senior Networking Projects (3 Credits)**

Prerequisites: CISS 388, CISS 400, and CISS 401 with grades of C or better or permission. The capstone course is used to research, document and implement current and advanced IT topics using knowledge and skills developed from networking courses. (Formerly 2440:490)

**CISS:491 CIS Senior Cybersecurity Project (3 Credits)**

Prerequisites: DGFR 442, DGFR 443, and CISS 388 with grades of C or greater or permission. This is the capstone course for the CIS Digital Forensics and Cybersecurity degree options. (Formerly 2440:491)

## Computer Science (CPSC)

**CPSC:101 Essentials of Computer Science (3 Credits)**

Explore major topics in Computer Science - computing systems, data representation, hardware, programming topics, and important applications such as networks, robotics, databases, and gaming. (Formerly 3460:101)

**CPSC:125 Descriptive Computer Science (2 Credits)**

Computer literacy: terminology; methods, media for data representation, storage; elements of a computing system; data organization. (Formerly 3460:125)

**CPSC:126 Introduction to Visual Basic Programming (3 Credits)**

Windows GUI and Microsoft's Visual BASIC programming environment. Design of user interfaces, event-driven programming, basic control structures, simple variables, arrays, and sequential files. (Formerly 3460:126)

**CPSC:200 Programming for Data Science (4 Credits)**

Prerequisite: MATH 145 or MATH 149. Introductory programming for data-intensive applications including data collection, pre-processing/cleansing, analysis, and visualization, using libraries for processing of large data sets. Designed as a first programming course for non-majors in the sciences (Formerly 3460:200)

**CPSC:209 Computer Science I (4 Credits)**

Prerequisite: Completion of MATH 145 or MATH 149 with a grade of C- or better or equivalent. Introduction to problem-solving methods and algorithms. Programming in a high-level language including how to design, code, debug and document programs with good programming style. (Formerly 3460:209)

**CPSC:210 Computer Science II (4 Credits)**

Prerequisites: CPSC 209 and MATH 208 with a grade of C- or better. Dynamic memory allocation methods, elementary data structures, internal representations, and associated algorithms. Topics include lists, stacks, queues, trees, and sorting methods. (Formerly 3460:210)

**CPSC:289 Selected Topics in Computer Science (1-3 Credits)**

Prerequisite: Permission. Selected topics of interest in computer science. (Formerly 3460:289)

**CPSC:306 Assembly and System Programming (4 Credits)**

Prerequisite: Completion of CPSC 210 or equivalent with a grade of C- or better. Basic computer organization, digital logic, and data representation. Programming in assembly and C languages on a typical digital computer. (Formerly 3460:306)

**CPSC:307 Internet Systems Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 or equivalent with a grade of C- or better. Overview of current programming languages, tool and scripting technologies for the Internet and World Wide Web. (Formerly 3460:307)

**CPSC:316 Data Structures (3 Credits)**

Prerequisites: CPSC 210 and [MATH 221 or MATH 210] with grades of C- or better. A continuation of topics in CPSC 210. Topics include: graphs and graph algorithms, external sorting, hashing, advanced tree and file structures. (Formerly 3460:316)

**CPSC:389 Intermediate Topics in Computer Science (1-3 Credits)**

Prerequisite: Permission of instructor. Selected topics of interest in computer science at an intermediate level. (Formerly 3460:389)



**CPSC:395 Internship in Computer Science (1-12 Credits)**

Prerequisites: Completion of CPSC 209 and CPSC 210 with grades of C- or better, and permission of a faculty supervisor. Placement in industry for experience related to computer science. (May be repeated to a maximum of 12 credit hours. No more than three credits may be applied towards a computer science major.) (Formerly 3460:395)

**CPSC:406 Introduction to C & UNIX (3 Credits)**

Prerequisite: Programming experience. Syntax of C with flow structures, pointers, and command line concepts. For UNIX, shell scripts, UNIX file structure, system calls and interprocess communication protocols. (Not an approved mathematics and computer science major, minor, or certificate elective.) (Formerly 3460:406)

**CPSC:408 Windows Programming (3 Credits)**

Prerequisites: Completion of CPSC 210 or CPSC 406 with a grade of C- or better or permission. Windows operating systems, integrated development environment, event-driven programming, graphical user interface design, object libraries, component object model, object linking, embedding, client-server objects. (Formerly 3460:408)

**CPSC:411 Human-Computer Interaction (3 Credits)**

Prerequisite: CPSC 316. This course introduces the basic concepts and technologies of Human-Computer Interaction (HCI). Students will learn how to design and implement systems for human to interact with computers. Topics include: Categories of HCI, CLI, GUI, NUI, Design, Implementation and Evaluation of HCI, HCI Devices, Virtual Device Drive, HCI Toolkits, HCI Standards, Categories of Interactive Tasks, EDP and Multi-Threading in HCI, VR/AR/MR/XR in HCI, APP HCI, 3D Printing. (Formerly 3460:411)

**CPSC:415 Big Data Programming (3 Credits)**

Prerequisite: CPSC 210 with a grade of C- or higher. Fundamentals of big data programming and computing platforms. Wrangling, modeling, visualizing, and analyzing data; computing platforms for data mining and deep learning. (Formerly 3460:415)

**CPSC:418 Introduction to Discrete Structures (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better or permission. Introduction to a number of structures in algebra of particular use to student in computer science. Topics include algorithms and flow chart language, graphs and digraphs, trees, lattices codes. (Formerly 3460:418)

**CPSC:421 Object-Oriented Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Object-oriented design, analysis, and programming using different development models. Comparison with other programming paradigms. (Formerly 3460:421)

**CPSC:426 Operating Systems (3 Credits)**

Prerequisites: Completion of CPSC 316 and CPEN 320 or equivalents with grades of C- or better. Introduction to aspects of all modern operating systems: types; storage management; process and resource control; interacting process synchronization. (Formerly 3460:426)

**CPSC:428 UNIX System Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better and knowledge of C. An overview of the UNIX operating system. Shell programming. Process management, processor management, storage management, scheduling algorithms, resource protection, and system programming. (Formerly 3460:428)

**CPSC:430 Theory of Programming Languages (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Advanced concepts underlying programming languages and their applications, formal definitions of programming languages, Backus Normal Form, semantics. Alternative programming paradigms including functional programming. (Formerly 3460:430)

**CPSC:435 Algorithms (3 Credits)**

Prerequisite: Completion of CPSC 316 with a grade of C- or better. Design and analysis of efficient algorithms for random access machines; derivation of pattern classification algorithms. (Formerly 3460:435)

**CPSC:436 Applied Machine Learning (3 Credits)**

Prerequisite: CPSC 210 with a grade of C- or higher. Machine learning studies algorithms and models that enable computers to complete task without explicit instructions. These algorithms rely on rules, associations, and patterns presented in large data sets gathered or generated through self-learning. This course will introduce students the fundamentals of machine learning, and concepts of deep learning. Topics include machine learning concepts, tasks, and workflow; supervised learning methods for classification and prediction; unsupervised learning methods for pattern recognition; concepts of advanced supervised learning methods including deep learning algorithms such as neural networks and convolutional neural networks. The main focus of the course is the application of industry-leading machine learning algorithms and the enabling techniques that make the implementation of the algorithms practical. (Formerly 3460:436)

**CPSC:438 Interactive Game & Game Engine Design (3 Credits)**

Prerequisite: CPSC 316. This course will introduce the basic concepts and techniques of game and game engine design. Students will learn how to design and implement interactive computer games and game engines. Topics include: Interactive Animation, Game Engines, EDP in Game Development, Procedural Animation and Physics Engine, Decision Making and AI Games, Surface & Volume Representation, VR, AR, MR, APP Games, Game Engine Development, and Voxel-Engine. (Formerly 3460:438)

**CPSC:440 Compiler Design (3 Credits)**

Prerequisites: Completion of CPSC 210 and (CPEN 320 or CPSC 306), with a grade of C- or better. Techniques used in constructing compilers, including lexical and syntactic analysis, parsing techniques, object code generation and optimization. Course requires a compiler implementation project. (Formerly 3460:440)

**CPSC:445 Introduction to Bioinformatics (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better or permission. Introduce major themes in bioinformatics. Topics include concepts of molecular genetics, biological databases, database searching, sequence alignments, phylogenetic trees, structure prediction, and microarray data analysis. (Formerly 3460:445)

**CPSC:453 Computer Security (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. Principles of computer security – cryptography, authentications, secure network protocols, intrusion detection and countermeasures. (Formerly 3460:453)

**CPSC:455 Data Communication & Computer Networks (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. ISO-OSI, TCP/IP, SNA data switching, protocols, flow and error control, routing, topology, Network trends, network taxonomies, and socket-based programming. (Formerly 3460:455)

**CPSC:457 Computer Graphics (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Topics in vector and raster graphics, interactive graphics languages, scan conversion, clipping, geometric transformation, projection, shading, animation and virtual reality. (Formerly 3460:457)

**CPSC:460 Artificial Intelligence & Heuristic Programming (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Study of various programs which have displayed some intelligent behavior. Exploration of level at which computers can display intelligence. (Formerly 3460:460)

**CPSC:463 Pervasive Computing (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. Computing from a wireless perspective. Topics include protocols, algorithms, security and sensor networks. (Formerly 3460:463)

**CPSC:465 Computer Architecture (3 Credits)**

Prerequisite: Completion of CPSC 210 and (CPEN 320 or CPSC 306), with a grade of C- or better. An introduction to the hardware organization of the computer at the register, processor and systems level. In-depth study of the architecture of a particular computer system family. (Formerly 3460:465)

**CPSC:468 Mobile Robotics (3 Credits)**

Prerequisites: Completion of CPSC 210 with a grade of C- or better. Introduction to history, hardware and software components, and design of autonomous mobile robots. Multiple projects involving both physical robots and software emulation. (Formerly 3460:468)

**CPSC:475 Database Management (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Fundamentals of database organization, data manipulations and representation, data integrity, privacy. (Formerly 3460:475)

**CPSC:476 Introduction to NoSQL Data Management (3 Credits)**

Prerequisite: CPSC 210. The widespread emergence of big data storage needs has driven the development and adoption of a new class of non-relational databases commonly referred to as NoSQL databases. This course will explore the origins of NoSQL databases and the characteristics that distinguish them from traditional relational database management systems. Core concepts of NoSQL databases will be presented, followed by an exploration of how different database technologies implement these core concepts. We will take a closer look at 1-2 databases from each of the four main NoSQL data models (key-value, column family, document, and graph), highlighting the business needs that drive the development and use of each database. Finally, we will present criteria that decision makers should consider when choosing between relational and non-relational databases and techniques for selecting the NoSQL database that best addresses specific use cases. (Formerly 3460:476)

**CPSC:477 Introduction to Parallel Processing (3 Credits)**

Prerequisites: Completion of CPSC 316 with a grade of C- or better and knowledge of C. Commercial processors: past and present. Parallel languages, models of parallel computation, parallel algorithm design and performance evaluation. Parallel paradigms with relation to real world applications. (Formerly 3460:477)

**CPSC:480 Software Engineering (3 Credits)**

Prerequisite: Completion of CPSC 210 with a grade of C- or better. Introduction to formal software specification and validation. Introduction of methodologies and tools of design, development and validation, and maintenance. (Formerly 3460:480)

**CPSC:489 Topics in Computer Science (1-3 Credits)**

Prerequisite: Permission of instructor. Selected topics in computer science at an advanced level. (Formerly 3460:489)

**CPSC:490 Senior Seminar in Computer Science (3 Credits)**

Prerequisites: Must have completed at least 30 hours of CPSC courses. Corequisites: CPSC 435 and [CPSC 426 or CPEN 325]. Professional software development, surviving "Mission Impossible" projects, computer ethics, intellectual property rights (patents and copyrights), and other current topics. (Formerly 3460:490)

**Gen Ed:** - Capstone

**CPSC:497 Individual Study in Computer Science (1-3 Credits)**

(May be repeated. Can apply to degree, minor or certificate only with department approval.) Prerequisite: Permission. Directed studies designed as introduction to research problems under guidance of designated faculty member. (Formerly 3460:497)

**CPSC:498 Senior Honors Project: Computer Science (1-3 Credits)**

Prerequisites: CPSC 497 and Senior student in Honors Program. Directed study for senior student in the Honors Program who has completed CPSC 497. An introduction to research problems in the computer science under the guidance of selected faculty. (Formerly 3460:498)

## Construction Engineering Technology (COET)

**COET:125 Statics (3 Credits)**

Prerequisites: MATH 154 and PHYS 160. This course covers forces, resultants, and couples. Equilibrium of force systems. Trusses, frames, centroid, moment of inertia, and friction. (Formerly 2990:125)

**COET:129 Professional Topics in Construction (3 Credits)**

This course introduces students to important professional topics and computing skills for construction managers including software for estimating, scheduling, presentations, general business administration and graphics. (Formerly 2990:129)

**COET:131 Building Construction (2 Credits)**

Materials and methods used in construction. Encompasses buildings constructed with wood, steel, concrete or a combination of these materials. (Formerly 2990:131)

**COET:150 Plan Reading (2 Credits)**

Prerequisite: COET 131. The language of construction. Symbols, scales, plan views, elevation views, sections and details. Quantity take-off estimation. (Formerly 2990:150)

**COET:225 Strength of Materials (3 Credits)**

Prerequisite: COET 125. Stress, strain and stress-strain relationships. Tension, compression, torsion, beams. Shear and moment diagrams. Combines stresses. (Formerly 2990:225)

**COET:226 Construction Supervision (3 Credits)**

Introduction to topics on construction supervision including planning, directing and coordinating onsite activities to build quality defined by drawings and specifications. (Formerly 2990:226)

**COET:234 Elements of Structures (3 Credits)**

Prerequisites: COET 125 and COET 225. Principles of stress and structural analysis, concepts of steel, timber design, and reinforced concrete. (Formerly 2990:234)

**COET:235 Construction Inspection (3 Credits)**

Prerequisite: COET 131. Fundamentals of total quality management and construction inspection. (Formerly 2990:235)

**COET:237 Materials Testing I (2 Credits)**

Prerequisite: MATH 154. Laboratory testing of soils with emphasis on physical properties of soil. Laboratory and field procedures used for quality control. (Formerly 2990:237)

**COET:238 Materials Testing II (2 Credits)**

Prerequisite: MATH 154. Mix design of concrete. Laboratory testing of concrete containing ordinary Portland cement and pozzolanic admixtures. Experiments demonstrate physical properties as related to design and quality control. (Formerly 2990:238)

**COET:239 Construction Geomechanics (3 Credits)**

This course provides an understanding of the impact of the mechanical behavior and engineering properties of soils and rock related to construction processes and methods. Topics include erosion control, laboratory test methods for engineering design, flood and mass wasting behavior, soil subsidence, and sustainability of engineered coastal structures. (Formerly 2990:239)

**COET:245 Construction Estimating (3 Credits)**

Prerequisites: MATH 154 and COET 150. Quantity takeoffs in construction to include mass excavations, foundation systems, structural steel, residential construction, and various commercial construction methods. (Formerly 2990:245)

**COET:246 Site Engineering (3 Credits)**

Prerequisite: MATH 153. The content includes study of the development of a site including surveying, excavation, soil treatment, heavy equipment requirements, storm water management, pavement design, and construction of roadways. (Formerly 2990:246)

**COET:248 Construction Graphics (3 Credits)**

Introduction to terminology and drawing basics with a focus on civil/site plans, architectural and structural drawing. (Formerly 2990:248)

**COET:254 Building Codes (3 Credits)**

Prerequisite: COET 131. Students learn fundamental concepts for construction related to the residential building code. (Formerly 2990:254)

**COET:310 Residential Building Construction (3 Credits)**

Introduction to building design, wood framing, and mechanical systems as commonly found in residential housing. (Formerly 2990:310)

**COET:352 Field Management & Scheduling (2 Credits)**

Prerequisite: COET 245 or permission. Planning, scheduling, and controlling of field work within time and cost constraints. Manual methods and computer software packages studied. (Formerly 2990:352)

**COET:354 Foundation Construction Methods (3 Credits)**

Prerequisites: COET 225 and COET 237. Soil mechanics and soils exploration as related to construction. Foundation construction methods and practice in the interest of safety and suitable economy. (Formerly 2990:354)

**COET:356 Safety in Construction (3 Credits)**

The purpose of this course is to explain what creates hazards and why, and to suggest where to anticipate trouble in each phase of the work as it progresses. (Formerly 2990:356)

**COET:358 Advanced Estimating (3 Credits)**

Prerequisite: COET 245. This course focuses on estimating and bidding for public and private construction. Includes heavy/highway, residential and building construction with use of computer software to facilitate bid price. (Formerly 2990:358)

**COET:361 Construction Formwork (3 Credits)**

Prerequisite: COET 234 or permission. Introduction to design and construction of formwork and temporary wood structures. (Formerly 2990:361)

**COET:362 Advanced Elements of Structures (3 Credits)**

Prerequisite: COET 234. This course examines advanced topics in structural engineering and is an extension of Elements of Structures. (Formerly 2990:362)

**COET:371 Green & Sustainable Building Practices (3 Credits)**

This course is designed to provide an understanding of sustainable construction practices and their importance on environmental issues. (Formerly 2990:371)

**COET:421 Risk Management and Contract Strategies (3 Credits)**

Prerequisite: Admission to the BSCET program, or permission from program director. This course focuses on current trends and challenges related to construction contracting. Students will learn critical "issue spotting" skills in areas of construction risk management, loss avoidance, collaboration, and strategic thinking. (Formerly 2990:421)

**COET:422 Leveraging Technology in Construction (3 Credits)**

Prerequisite: Admission to the BSCET program, or permission from program director. This course we will describe how to use emerging trends and technologies to improve project outcomes. Topics include digital and computing technologies - BIM, video and laser scanning, AI and cloud computing, big data and data analytics, reality capture, blockchain, simulation, augmented reality, data standards and interoperability, and vertical and horizontal integration, industrial production - prefabrication, 3D printing and assembly, offsite manufacture, cyber-physical systems - actuators, sensors, IoT, robots, cobots, and drones. (Formerly 2990:422)

**COET:442 Lean Building Science (3 Credits)**

Prerequisite: Admission to the BSCET program. This course is designed to provide an understanding of collaborative leadership and lean building science as it relates to job site construction safety, building first cost, schedule, ongoing building operating expenses, and upcycle construction benefits. Students will work in classroom and workshop settings led by construction industry leaders and subject matter experts. There will also be the opportunity to experience job site application of these practices. Core concepts will be taught through a variety of methods, such as learning checks, peer presentations, videos, social media posts and smaller group projects. Students will learn a variety of tools they can apply immediately to their work to reduce waste and improve the overall efficacies of their organizations. (Formerly 2990:442)

**COET:453 Legal Aspects of Construction (2 Credits)**

Prerequisite: Admission into the BCET program or permission. Study of business of contracting and subcontracting and legal problems therein such as breach, partial performance, payment, insolvency, subsurface. Review of standard contracts and construction industry rules of arbitration. (Formerly 2990:453)

**COET:462 Mechanical Service Systems (3 Credits)**

Introduction to materials and equipment used in mechanical heating, ventilating, air conditioning, water and waste systems. (Formerly 2990:462)

**COET:463 Electrical Service Systems (3 Credits)**

Introduction to materials and equipment in electrical systems of buildings. Includes illumination, electrical sources, materials and distribution. Emphasis of fire safety. (Formerly 2990:463)

**COET:465 Heavy Construction Estimating (3 Credits)**

Prerequisite: COET 245. Quantity takeoffs and cost analysis to include methods, systems, and equipment relevant to heavy highway and civil infrastructure projects. (Formerly 2990:465)

**COET:466 Hydraulics (3 Credits)**

Prerequisite: Junior or greater standing. Pre/Corequisite: MATH 356. Introduction to hydrology. Flow in closed conduits and open channels, distribution, systems, storage requirements and basic concepts of hydraulic structures. Basic concepts of seepage and working knowledge of pumps. (Formerly 2990:466)

**COET:468 Construction Management (3 Credits)**

Prerequisites: COET 352 and COET 358. Construction Management takes established construction practices, current technological advances, and latest management methods and makes them into an efficient, smooth working system. (Formerly 2990:468)

**Gen Ed:** - Capstone

**COET:469 Contracts and Specifications (3 Credits)**

Prerequisite: Admission to BSCET program or permission. This course studies the principles and applications of construction specifications, contracts, processes for managing professional risk and increasing economic performance of the construction process. (Formerly 2990:469)

**COET:471 Understanding LEED Guidelines (3 Credits)**

Prerequisite: COET 371. Provides an understanding of LEED guidelines and requirements and help prepare the student for the LEED associate exam. (Formerly 2990:471)

**COET:479 CPC Seminar (3 Credits)**

Prerequisite: Senior standing in a BS Degree in Construction Engineering Technology or permission. This course prepares students for the content and format of the Certified Professional Constructor's Examination. (Formerly 2990:479)

**COET:489 Special Topics in Construction (1-3 Credits)**

Prerequisite: Permission of instructor. (May be repeated for up to six credits.) Special lecture/laboratory courses offered once or only occasionally in areas where no formal courses exist. (Formerly 2990:489)

**COET:490 Workshop in Construction (1-3 Credits)**

Prerequisites: Permission. Group studies of special topics in construction. May not be used to meet undergraduate major requirements in construction. May be used for elective credit only. (May be repeated for up to six credits) (Formerly 2990:490)

**COET:497 Honors Project (1-3 Credits)**

Prerequisite: Senior standing in Honors College and permission of supervising faculty in student's degree field and pursuit of major in CET. Individual Senior Honor's Project relevant to student's major field of study. Specific projects are approved and supervised by a designated member of the faculty in the student's degree field. (Formerly 2990:497)

**COET:498 Independent Study in Construction (1-3 Credits)**

Prerequisite: Permission. Directed study in a special field of interest chosen by student in consultation with instructor. (May be repeated for up to six credits) (Formerly 2990:498)

## Corrosion Engineering (CORE)

**CORE:101 Tools for Corrosion Engineering (2 Credits)**

Corequisites: MATH 149 and CHEE 110. Introduction to corrosion engineering. Basic concepts of engineering practice. Introduction to professional level software needed for later studies. (Formerly 4250:101)

**CORE:105 Corrosion Engineering Computations (2 Credits)**

Prerequisite: CHEE 101 or CORE 101. Corequisite: CHEM 153. Structure, processing and properties of metals, ceramics, and polymers. (Formerly 4250:105)

**CORE:194 Design Project 1 (1 Credit)**

Prerequisite: Permission. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:194)

**CORE:200 Material and Energy Balances for Corrosion Engineers (4 Credits)**

Prerequisites: [CHEE 121 or CORE 105], CHEM 151 and MATH 221. Introduction to material and energy balance calculations applied to the solution of chemical processing and corrosion engineering problems. (Formerly 4250:200)

**CORE:294 Design Project 2 (1-2 Credits)**

Prerequisite: Sophomore standing. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:294)

**CORE:300 Fundamentals of Aqueous Corrosion (3 Credits)**

Prerequisites: CHEE 220 and [CHEE 305 or MECE 380] and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 301. Fundamentals of aqueous corrosion will cover corrosion tendencies, processes and rates at low temperature. An in-depth understanding of the aqueous corrosion mechanisms, materials performance, and the effects of stress will be covered. (Formerly 4250:300)

**CORE:301 Aqueous Corrosion Lab I (1 Credit)**

Prerequisites: CHEM 154 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 300. Laboratory exercises will reinforce the fundamentals of aqueous corrosion. (Formerly 4250:301)

**CORE:305 Aqueous Corrosion Prevention (3 Credits)**

Prerequisites: CHEM 263, CORE 300 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisites: CORE 306, CIVE 202 and ELEN 307. This course presents a functional approach to controlling and preventing aqueous corrosion based upon engineering methodologies to proper materials selection, organic coatings, chemical inhibitors, and electrochemical protection. Applications in specific industries will be covered. (Formerly 4250:305)

**CORE:306 Aqueous Corrosion Lab II (1 Credit)**

Prerequisites: CORE 301 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 305. Laboratory exercises will reinforce the fundamentals of aqueous corrosion. (Formerly 4250:306)

**CORE:310 Fundamentals of Dry Corrosion (3 Credits)**

Prerequisites: CORE 300 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 311. Fundamentals of dry/hot corrosion will cover corrosion tendencies, processes and rates at high temperature. An in-depth understanding of the high temperature corrosion mechanisms, materials performance, and the effects of stress will be covered. (Formerly 4250:310)

**CORE:311 High Temperature Corrosion Lab (1 Credit)**

Prerequisites: CORE 306 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CORE 310. Laboratory exercises will reinforce the fundamentals of high temperature corrosion. (Formerly 4250:311)

**CORE:340 Corrosion Prevention (Dry) (3 Credits)**

Prerequisite: CORE 305. Corequisite: CORE 310, MECE 380. This course presents a functional approach to controlling and preventing dry corrosion based upon engineering methodologies to proper materials selection, inorganic coatings, and passivation. Applications in specific industries will be covered. (Formerly 4250:340)

**CORE:394 Design Project 3 (1-3 Credits)**

Prerequisite: Junior standing. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:394)

**CORE:440 Corrosion Engineering Design I (3 Credits)**

Prerequisites: CORE 305 and admission to an engineering major within the College of Engineering and Polymer Science. This course applies the lessons learned in corrosion prevention and laboratory courses to corrosion case studies. Solutions to existing corrosion problems will be developed based on the analysis of test data. (Formerly 4250:440)

**CORE:441 Corrosion Engineering Design II (3 Credits)**

Prerequisites: CORE 440 and admission to an engineering major within the College of Engineering and Polymer Science. This course focuses on understanding the financial, political, social and health implications of corrosion, corrosion mitigation, and corrosion prevention. Solutions to existing corrosion problems will be developed based on economic, political, social, and health issues. The course will also cover methodologies for preserving assets and reducing operation costs. (Formerly 4250:441)

**Gen Ed:** - Capstone

**CORE:450 Engineering Principles of Corrosion (3 Credits)**

Prerequisite: Junior or greater standing or permission. Engineering principles for understanding corrosion and corrosion mitigation methods. Case studies of corrosion management to reliability and reduce corrosion. Multidisciplinary engineering enrollment encouraged. (Formerly 4250:450)

**CORE:494 Design Project 4 (1-3 Credits)**

Prerequisite: Senior Standing. Individual design project in Corrosion Engineering that is supervised by a faculty member. (Formerly 4250:494)

**CORE:496 Special Topics in Corrosion Engineering (1-3 Credits)**

Prerequisite: Permission. (May be repeated for a total of six credits). Topics selected from new and developing areas of corrosion engineering. (Formerly 4250:496)

**CORE:497 Honors Project (1-3 Credits)**

Prerequisites: Senior standing in Honors College or permission. Individual research or design project in Corrosion Engineering that is supervised by a faculty member. Conducted in accordance with the Honors College requirements. (Formerly 4250:497)

## Corrosion Engineering Technology (CRET)

**CRET:120 Corrosion Engineering Technology Fundamentals I (3 Credits)**

Pre/Corequisite: CHEM 101 or [CHEM 151 and CHEM 152]. Introduction to corrosion engineering topics including economic impacts of corrosion, types of corrosion, their recognition and prevention, parameters affecting corrosion, and methods of corrosion control. (Formerly 2850:120)

**CRET:121 Corrosion Engineering Technology Fundamentals II (4 Credits)**

Prerequisite: CRET 120. Basic understanding of steps and methods required for combating corrosion including proper design, material selection, protective coating application, inhibitors use, and cathodic and anodic protection. (Formerly 2850:121)

**CRET:220 Strategies for Corrosion Prevention (4 Credits)**

Prerequisite: CRET 121. Pre/Corequisite: EEET 120. This course focuses on the control of corrosion by applying coatings and cathodic protection. (Formerly 2850:220)

**CRET:221 Corrosion Engineering Technology Projects (4 Credits)**

Prerequisite: CRET 220. Course focuses on corrosion/failure analysis and corrosion mitigation, and discussion of regulatory compliance and resource acquisition and allocation. (Formerly 2850:221)

## Counseling (COUN)

**COUN:401 Introduction to Suicidology (3 Credits)**

Introduction to Suicidology covers a broad range of issues related to suicide from global, U.S. national, state and local perspectives. (Formerly 5600:401)

**COUN:410 Personnel Services in School (2 Credits)**

Prerequisite: Senior standing. Introduction to background, role and function, techniques, community agencies and issues in personnel field. For student considering pupil personnel fields, social work. (Formerly 5600:410)

**COUN:415 Mental Illness & Media (2 Credits)**

Mental illness is often portrayed negatively the media. This course focuses on mental illness, stigma, and how movies portray specific mental disorders. (Formerly 5600:415)

**COUN:426 Career Education (2 Credits)**

Prerequisite: Junior or greater standing. Examination of current career education models and programs with emphasis on infusion of career education activities into elementary and secondary curriculum. (Formerly 5600:426)

**COUN:436 Helping Skills for Resident Assistants (2 Credits)**

Open to resident assistants in University housing. A course designed to help student personnel workers become more effective in professional role. (Formerly 5600:436)

**COUN:450 Counseling Problems Related to Life-Threatening Illness & Death (3 Credits)**

Prerequisite: Permission. Consideration of the global issues, current research, coping behavior, support systems and family and individual needs in regard to life-threatening situations. (Formerly 5600:450)

**COUN:480 Special Topics: Educational Guidance & Counseling (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5600:480)

**COUN:490 Workshop: Educational Guidance & Counseling (1-3 Credits)**

Special instruction designed as in-service and/or upgrading individuals on current issues and practices in counseling. (Formerly 5600:490)

**COUN:491 Workshop: Educational Guidance & Counseling (1-3 Credits)**

Special instruction designed as in-service and/or upgrading individuals on current issues and practices in counseling. (Formerly 5600:491)

**COUN:492 Workshop: Educational Guidance & Counseling (1-3 Credits)**

Special instruction designed as in-service and/or upgrading individuals on current issues and practices in counseling. (Formerly 5600:492)

**COUN:493 Workshop: Educational Guidance & Counseling (1-4 Credits)**

Special instruction designed as in-service and/or upgrading individuals on current issues and practices in counseling. (Formerly 5600:493)

**COUN:494 Counseling Institute (1-4 Credits)**

In-service programs for counselors and other helping professionals. (Formerly 5600:494)

# Criminal Justice Studies (CRJU)

## **CRJU:100 Introduction to Criminal Justice (3 Credits)**

Overview of criminal justice system, its history, development and evolution within the United States including subsystems of police, courts, corrections. Constitutional limitations, current criminal justice practices human relations, professionalization, prevention. (Formerly 3800:100)

## **CRJU:101 Introduction to Security Administration Technology (3 Credits)**

Introduces fundamentals such as equipment, technology, design theories, management practices, trends, concerns, and issues in security administration. (Formerly 3800:101)

## **CRJU:102 Principles of Criminal Law (3 Credits)**

Prerequisite: CRJU 100. This course examines the central principles of criminal law, including its history, philosophy, the elements of major crimes and criminal defenses. (Formerly 3800:102)

## **CRJU:103 Introduction to Corrections (3 Credits)**

Prerequisite: CRJU 100. Introduction to history and goals of institutional and community corrections. (Formerly 3800:103)

## **CRJU:104 Evidence & Criminal Legal Process (3 Credits)**

Prerequisite: CRJU 100. Study of evidence law, constitutional perspectives and law enforcement officer's relationship thereto. Court procedures from arrest to incarceration. (Formerly 3800:104)

## **CRJU:105 Introduction to Police Studies (3 Credits)**

Prerequisite: CRJU 100. Provides a foundation for understanding police role, structure, and function in American society at the local, state, and federal levels. (Formerly 3800:105)

## **CRJU:106 Juvenile Justice Process (3 Credits)**

Prerequisite: CRJU 100. Examination of juvenile justice system, functions of its various components; adolescent subculture, legislation, causative factors, prevention and treatment methodologies and programs. (Formerly 3800:106)

## **CRJU:120 Crime Prevention: Theory, Practice, and Management (3 Credits)**

Examines contemporary crime prevention and security strategies used in target hardening. Central theme is the use of community resources to prevent crime. (Formerly 3800:120)

## **CRJU:224 Profiling Serial Killers (3 Credits)**

Prerequisite: CRJU 100. Introduction to the theories, analyses, and methodology used in profiling serial killers. Actual serial profiles and paradigms of crime scene analyses also examined. (Formerly 3800:224)

## **CRJU:225 The Police Experience (3 Credits)**

Prerequisites: CRJU 100 and permission. Completion (C or better) and CRJU 100 qualifies a commissioned police officer to test out of certain courses (see adviser). Academic refresher course of basic police academy. (Formerly 3800:225)

## **CRJU:226 Interviews, Interrogations, and Hostage Negotiations (3 Credits)**

Prerequisite: CRJU 100. An overview of the legal, theoretical, and applied aspects of conducting interviews, interrogations, and hostage negotiations within the field of law enforcement. (Formerly 3800:226)

## **CRJU:231 Physical Security: Systems, Design, and Control (3 Credits)**

Topics include: controlling and monitoring the access of persons and vehicles, prevention and detection of unauthorized intrusions and surveillance, and safeguarding key assets. (Formerly 3800:231)

## **CRJU:232 Legal Issues in Security Administration (3 Credits)**

Survey of laws applicable to the security administration function including tort, labor, employment, unemployment, workers' compensation, contract, insurance, cyber, criminal and constitutional law. (Formerly 3800:232)

## **CRJU:233 Security Investigations: Principles and Practice (3 Credits)**

Overview of investigative methods employed by the security manager. Students will examine legal and ethical duties and issues related to investigation. (Formerly 3800:233)

## **CRJU:234 Computer and Information Security (3 Credits)**

Examines practical applications of effective information security measures and legal, ethical and privacy issues concerning the storage and use of information in society. (Formerly 3800:234)

## **CRJU:235 School Crime and Violence Prevention (3 Credits)**

Prerequisites: CRJU 101, CRJU 120. Examines the nature and extent of crime and deviance in American schools. Particular focus is on the use of a systems approach to prevent crime. (Formerly 3800:235)

## **CRJU:240 Vice & Organized Crime (3 Credits)**

Prerequisites: CRJU 100 and permission. An overview of organizations operating nationally and internationally in a variety of criminal activities with a particular emphasis on narcotics trafficking. (Formerly 3800:240)

## **CRJU:245 Homeland Security: Principles and Practice (3 Credits)**

Overview of fundamental homeland security concepts and issues such as: intelligence, critical infrastructure protection, hazards, strategy, policy, risk, organizational design and leadership. (Formerly 3800:245)

## **CRJU:251 Criminal Investigation (3 Credits)**

Prerequisite: CRJU 100. The course provides the student with fundamental investigative skills and the ability to manage a criminal case from initiation through conclusion. (Formerly 3800:251)

## **CRJU:253 Basic Forensic Methods (3 Credits)**

Introduction to the science, technology and application of forensic methods in the investigation of crime. (Formerly 3800:253)

## **CRJU:255 Introduction to Forensic Investigation (3 Credits)**

Prerequisite: CRJU 100. This course is designed to introduce the student to the field of forensic science. The emphasis will be on skills and techniques of evidence evaluation. (Formerly 3800:255)

## **CRJU:270 Community Corrections (3 Credits)**

Prerequisite: CRJU 100. Examines the corrections component of the criminal justice system. Special focus on the development and use of probation, parole, and other alternative forms of sentencing. (Formerly 3800:270)

## **CRJU:275 Legal Aspects of Corrections (3 Credits)**

Examination of the influence of the legal system on corrections, especially United States Supreme Court decisions. (Formerly 3800:275)

## **CRJU:286 Courtroom Communication (3 Credits)**

Prerequisite: CRJU 100. Witnessing studies the trial process, emphasizing role of witnesses. Effective communication to juries, applicable evidentiary rules and preparation techniques are taught, preparing students for direct and cross-examination. (Formerly 3800:286)

## **CRJU:287 The Legal System and Psychology (3 Credits)**

Prerequisite: CRJU 100. Examination of various areas where law and psychology interface, particularly in criminal cases by examining the expanding role of psychology in justice system and the courtroom. (Formerly 3800:287)

**CRJU:292 Special Topic: Criminal Justice (1-4 Credits)**

(May be repeated for a total of six credits). Prerequisite: Permission. Workshops and special programs in selected areas of criminal justice such as community relations, crime statistics, ethics, survival. (Formerly 3800:292)

**CRJU:296 Current Topics in Criminal Justice (1-3 Credits)**

Prerequisite: CRJU 100. A variety of course topics on current subjects relative to law enforcement and the Criminal Justice System. May be repeated for up to 12 credits. (Formerly 3800:296)

**CRJU:297 Independent Study: Criminal Justice (1-3 Credits)**

Prerequisite: CRJU 100 and permission. Selected topics and special areas of study in Criminal Justice Technology under the supervision of a selected faculty member with whom specific arrangements have been made. (Formerly 3800:297)

**CRJU:298 Applied Ethics in Criminal Justice (3 Credits)**

Prerequisite: CRJU 100. This course deals with ethical considerations which confront justice practitioners and the legal ramifications of misconduct. (Formerly 3800:298)

**CRJU:302 Theory of Criminal Law (3 Credits)**

Prerequisite: CRJU 102. Criminal law is built on a number of core issues. This course examines the principles and doctrines that shape and limit criminal liability and punishment. (Formerly 3800:302)

**CRJU:305 Policing Administration and Management (3 Credits)**

This course prepares students for promotion through the ranks of policing organizations, covering issues of interest to first-line supervisors and mid-level managers. (Formerly 3800:305)

**CRJU:307 Foundations of Crime Analysis (3 Credits)**

Introduction to the profession of crime analysis. Provides an overview of crime analysis techniques. (Formerly 3800:307)

**CRJU:325 Information Privacy (3 Credits)**

This course examines the origins, development and scope of individual control over, or government regulation of, personal information. (Formerly 3800:325)

**CRJU:386 Courtroom Proceedings and Testimony (3 Credits)**

All criminal justice professionals will appear as a witness at some point in their career. This course examines the courtroom process and how to effectively prepare and present testimony before a judge or jury. (Formerly 3800:386)

**CRJU:398 Police Accountability and Risk Management (3 Credits)**

This course focuses on building intelligent and resilient policing organizations that are structured to prevent officer misconduct, hold officers accountable when prevention efforts fail, and support both officer and community justice and wellness. (Formerly 3800:398)

**CRJU:405 Policing Theory and Strategy (3 Credits)**

Students will use social science theory and methods to evaluate police officers, practices and organizations. (Formerly 3800:405)

**CRJU:407 Advanced Crime Analysis (3 Credits)**

Prerequisite: CRJU 307. Introduction to advanced concepts and techniques for all major types of crime analysis: tactical, strategic, operations, administrative, intelligence, and investigative. (Formerly 3800:407)

**CRJU:457 Crime Analysis Applications (3 Credits)**

Prerequisites: CRJU 307 and CRJU 407. Students apply theories, strategies, techniques, and methods with the breadth and quality of work expected of crime analysis professionals. Students should complete all technology core requirements for the Bachelor of Science degree in Criminal Intelligence Analysis before attempting this course. (Formerly 3800:457)

**CRJU:465 Crisis & Trauma: Assessments & Interventions (3 Credits)**

Introduction to the stressors and emotions of dealing with people in crisis situations. Intervention, assessment and prevention strategies to help people in traumatic situations. (Formerly 3800:465)

**CRJU:480 Special Topics in Criminal Justice (1-3 Credits)**

The exact topic for this course will vary each semester. It will cover relevant topics in policing, courts, corrections, or criminology. (Formerly 3800:480)

**CRJU:497 Independent Study and Research (1-3 Credits)**

Prerequisite: Permission of Department. This course allows students to explore a topic of interest in criminal justice with the guidance of a faculty member. (Formerly 3800:497)

## Curricular and Instructional Studies (EDCI)

**EDCI:223 Urban Youth Mentoring (3 Credits)**

Urban youth mentoring and mentorship theory and practice in school-based settings; including the completion of 30 hours of urban mentorship field experience. (Formerly 5500:223)

**Gen Ed:** - Complex Issues Facing Society

**EDCI:230 Educational Technology (3 Credits)**

Prerequisite: 13-15 sem. hrs. with a 'C' or better in specific GenEd courses; EDFN 200 (may be taken as prerequisite or corequisite); FBI/BCI background checks. Effectively identifying, locating, evaluating, designing, preparing, and efficiently using educational technology as instructional resource in the classroom to support learning and teaching. (Formerly 5500:230)

**EDCI:240 Foundations of Literacy (3 Credits)**

Focus on building blocks of teaching children how to read with an emphasis on literacy development and an emphasis on research-based components of reading instruction. (Formerly 5500:240)

**EDCI:241 Word Study, Phonics & Spelling (3 Credits)**

Prerequisite: EDCI 240. Candidates will explore a variety of genres, types of texts, resources, and instructional strategies to maximize students' comprehension, fluency, and vocabulary growth. (Formerly 5500:241)

**EDCI:245 Understanding Literacy Development & Phonics (3 Credits)**

Prerequisite: admission to Teacher Preparation Program. Children's literacy development is explored through an integrated instructional model, with emphasis on the role of comprehension, phonics, and functional spelling in language learning. (10 hours of service learning) (Formerly 5500:245)

**EDCI:251 Teaching Personal Finance in the PK-12 Classroom (3 Credits)**

Teacher candidates learn best practices in planning and implementing standards-based personal finance and economic instruction. (Formerly 5500:251)

**EDCI:286 Teaching Multiple Texts (3 Credits)**

Prerequisite: EDCI 240. Candidates will explore a variety of genres, types of texts, resources, and instructional strategies to maximize students' comprehension, fluency, and vocabulary growth. 10 field hours. (Formerly 5500:286)

**EDCI:308 Instructional Design and Assessment (6 Credits)**

Prerequisites: EDFN 220 and EDIS 225. Theoretical and practical foundations for standards-based instruction and assessment; including instructional design, assessment development, and classroom practice for all learners in diverse and inclusive settings. 30 Field Hours. (Formerly 5500:308)

**EDCI:310 Instructional Design (3 Credits)**

Prerequisites: EDFN 210, EDFN 211, and admission to LBJFF School of Education. Corequisite: EDCI 311. Design and teach lessons using instructional models, strategies, and resources for students with different characteristics and design appropriate assessments to measure content mastery. (Formerly 5500:310)

**EDCI:311 Instructional Resources (3 Credits)**

Prerequisites: EDFN 210, EDFN 211; Corequisite: EDCI 310. Examines existing and developing media, technological, human and environmental resources as they relate to learning. Includes identifying, locating, evaluating, using, designing, and preparing educational resources. (Formerly 5500:311)

**EDCI:320 Diversity in Learners (3 Credits)**

Prerequisites: EDFN 210, EDFN 211. Students learn to appreciate common core culture, the diversity in the student population and the democratic ideal of equal access to educational opportunity. (10 hours of field experience included.) (Formerly 5500:320)

**EDCI:330 Classroom Management (3 Credits)**

Prerequisites: EDFN 210, EDFN 211. Content regarding effective organization of the classroom as well as procedures and models for mediation of student behaviors will be presented. (Formerly 5500:330)

**EDCI:341 Laboratory Practicum in Reading (3 Credits)**

Prerequisite: EDCI 445. Laboratory experience with classroom, small groups and individual situations. A student diagnoses, implements procedures and follows prescribed reading improvement practices. (25.5 field hours) (Formerly 5500:341)

**EDCI:360 Educational Planning: Instruction, Assessment and Classroom Management (3 Credits)**

Prerequisites: EDCI 230, EDFN 200, EDFN 220; EDIS 225; prerequisite or corequisite: EDFN 300. Theoretical foundations for standards-based thematic units and lesson plans, classroom assessment and organization, including procedures and models for mediating student behavior and classroom management. (Formerly 5500:360)

**EDCI:370 Educational Implementation: Instruction, Assessment and Classroom Management (3 Credits)**

Prerequisites: EDCI 360, EDFN 300. Interpretation and application of standards-based thematic units and lesson plans; classroom assessment and organization, including mediation of student behaviors and classroom management. (Formerly 5500:370)

**EDCI:403 Global Education & Technology (3 Credits)**

This course focuses on theories, materials, and methods for teaching global education through e-learning and web-based tools. (Formerly 5300:303)

**EDCI:430 Honors Research Project: Early Childhood (1-6 Credits)**

Prerequisite: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (May be repeated for a total of six credits). (Formerly 5200:430)

**EDCI:431 Honors Research Project: Secondary Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5300:430)

**EDCI:432 Honors Research Project: Special Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5610:430)

**EDCI:433 Honors Research Project: Middle Level Education (1-6 Credits)**

(May be repeated for a total of six credits.) Prerequisites: Permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5250:430)

**EDCI:439 Engineering for Educators (3 Credits)**

Prerequisite: EDCI 308. Engineering design concepts and their applications course for teachers/teacher candidates. Students will engage in engineering problem solving activities and design lesson plans that address science and engineering practices. (Next Generation Science Standards) (Formerly 5500:439)

**EDCI:440 Literacy in the Content Areas (3 Credits)**

Prerequisite: EDCI 308. Prepare candidates to understand issues and use methods and materials to promote disciplinary literacy in middle and secondary classrooms (20 hours clinical). (Formerly 5500:440)

**EDCI:442 Teaching Reading to Culturally Diverse Learners (3 Credits)**

Prerequisites: EDCI 245, EDCI 286. The course is designed to provide students with knowledge, skills, and attitudes that will enable employment of effective methods of teaching reading to culturally different learners and/or learners whose language patterns are nonstandard. (Formerly 5500:442)

**EDCI:445 Assessment and Instruction in Literacy (3 Credits)**

Prerequisites: EDCI 240, EDCI 241, and [EDCI 286 or EDCI 440] with a grade of C or better. This course explores the assessment of students' progress in language literacy. Formal and informal instruments identifying progress in reading, writing, speaking, and listening are examined implemented. There are 30 hours of field experience included in this course. (Formerly 5500:445)

**EDCI:450 Nature, History, and Philosophy of Science (3 Credits)**

(May be repeated with a change in topic). Provides opportunities to examine the historical and philosophical perspectives of science in an online medium and the impact of science and technology on society. (Formerly 5500:450)

**EDCI:455 Literacy for Multiage Licensure (3 Credits)**

Prerequisite: Admission to Teacher Education Program. Organizing instruction, use of oral language development protocols, strategies for word skill development, comprehension and assessment as they relate to content areas. (Formerly 5500:455)

**EDCI:456 Scaffolding Language and Content Learning for English Learners (3 Credits)**

Prerequisite: ENGL 473. This course prepares students to use quality, research-based sheltered instruction for improving teaching effectiveness and accelerating academic achievement achievement for English learners. (Formerly 5500:456)

**EDCI:458 Inclusive Field Experience (1 Credit)**

Corequisite: EDIS 457. In this inclusive field experience, teacher candidates explore the challenges and best practices in providing quality educational services for all learners. (20 field hours) (Formerly 5500:458)



**EDCI:475 Instructional Technology Applications (3 Credits)**

Prerequisite: EDCI 230 and EDCI 360. Focus on developing learner competencies in the use of instructional technologies to enhance both the instructor's personal and professional productivity. (Formerly 5500:475)

**EDCI:480 Special Topics: Curriculum & Instruction (1-6 Credits)**

Group study of special topics of critical, contemporary concern in professional education. (May be repeated with a change in topic) (Formerly 5500:480)

**EDCI:484 Principles of Bilingual/Multicultural Education (3 Credits)**

An introduction to the theoretic, cultural, sociolinguistic bases of bilingual/multicultural education. Legislation, court decisions, program implementation included. (Formerly 5500:484)

**EDCI:485 Teaching Literacy to English Learners (3 Credits)**

Prerequisite: Admission to the LBJFF School of Education. Course applies methodologies for teaching literacy to English learners, assessment of literacy skills and development of materials. 12 field hours of field experience are required. (Formerly 5500:485)

**EDCI:486 Teaching Mathematics, Social Studies & Science to Bilingual Students (3 Credits)**

Prerequisites: Completion of all age-appropriate methods courses. Course applies methodologies for teaching mathematics, science, social studies in the bilingual/multicultural classroom. The bilingual student's native language stressed. (Formerly 5500:486)

**EDCI:487 Techniques of Teaching English as a Second Language (3 Credits)**

Course includes teaching language skills to Limited English Proficient students in grades K-12, administration of language assessment tests, selection and evaluation of materials. (10 field hours) (Formerly 5500:487)

**EDCI:488 Practicum: Teaching English as a Second Language (2 Credits)**

Prerequisites: EDCI 485 and EDCI 487. A practical experience in which teacher candidates observe, participate, and practice teaching in an ESL classroom under the supervision of an experienced, certified/licensed teacher. (Formerly 5500:488)

**EDCI:490 Workshop: Curriculum & Instruction (1-3 Credits)**

Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques. (Formerly 5500:490)

**EDCI:491 Workshop: Curriculum & Instruction (1-3 Credits)**

Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques. (Formerly 5500:491)

**EDCI:492 Workshop: Curriculum & Instruction (1-3 Credits)**

Emphasizes development of teaching devices and/or curriculum units, demonstration of teaching techniques. (Formerly 5500:492)

**EDCI:497 Independent Study (1-3 Credits)**

Prerequisite: Permission of advisor and department chair. Specific area of curriculum investigation pertinent to the general curriculum and instruction area as determined by student's academic needs. (Formerly 5500:497)

## Dance (DNCE)

**DNCE:100 Ballet I (2 Credits)**

(May be repeated for a total of four credits) Emphasis on body placement, muscular awareness. (Formerly 7900:124)

**DNCE:101 Ballet II (2 Credits)**

Prerequisite: permission or grade of B or better for one semester of DNCE 100. (May be repeated for a total of four credits) Continuation of DNCE 100. Basic exercises of classical ballet. (Formerly 7900:125)

**DNCE:110 Modern I (2 Credits)**

(May be repeated for a total of four credits) Exploring the basic principles of modern dance with an emphasis on body alignment and muscular awareness. (Formerly 7900:119)

**DNCE:111 Modern II (2 Credits)**

Prerequisite: permission or grade of B or better for one semester in DNCE 110. (May be repeated for a total of four credits) Continuation of DNCE 110. Increasing movement vocabulary, muscular strength and coordination of modern dance. (Formerly 7900:120)

**DNCE:120 Jazz Dance I (2 Credits)**

(May be repeated for a total of four credits.) Basic jazz dance technique and jazz dance origins. (Formerly 7900:130)

**DNCE:130 Tap Dance I (2 Credits)**

(May be repeated for a total of four credits.) Basic tap dance technique and terminology. (Formerly 7900:144)

**DNCE:148 Dance Somatics: Alexander Technique (1 Credit)**

Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:105)

**DNCE:149 Dance Somatics: Gyrokinesis (1 Credit)**

Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:104)

**DNCE:150 Dance Somatics: Pilates (1 Credit)**

Prerequisite: DNCE 200 or DNCE 210, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:102)

**DNCE:151 Dance Somatics: Yoga (1 Credit)**

Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of alternative movement disciplines aimed at increasing body-mind awareness and dancer health. Must be taken by dance majors in first two years of study. (Formerly 7900:101)

**DNCE:152 Topics in World Dance (1 Credit)**

May be repeated for a total of six credits. Prerequisite: DNCE 100 or DNCE 110, or higher levels of ballet or modern dance technique. Exploration of various dance genres from world and historical traditions. (Formerly 7900:111)

**DNCE:153 Orientation for Dance (0 Credits)**

Orientation to the dance program and field. Must be taken by all dance majors in their first semester of study. Dance Orientation is a degree requirement and is offered on a credit/noncredit basis. (Formerly 7900:103)

**DNCE:154 Freshman Jury and Interview (0 Credits)**

The passing of the Freshman Jury and interview is a requisite for becoming a BA dance major. It is also a degree requirement. Students may take the Freshman Jury and Interview the following semester if failed the first time. It may not be taken more than twice. Offered on a credit/non credit basis. (Formerly 7910:201)

**DNCE:155 BFA Audition (0 Credits)**

Prerequisite: DNCE 154 or permission. Passing the BFA Audition is a requisite for becoming a BFA dance major. It is also a degree requirement. It may not be taken more than twice. Offered on a credit/noncredit basis. (Formerly 7910:200)

**DNCE:156 Physical Analysis for Dance I (2 Credits)**

Prerequisites: BIOL 200, BIOL 201; NUTR 133. Required for all dance majors. Recommended to be taken in the first two years. Lecture/laboratory. Skeletal and muscular analysis for dance technique. (Formerly 7900:116)

**DNCE:157 Physical Analysis for Dnce II (2 Credits)**

Prerequisite: DNCE 156. Support systems, conditioning injury prevention, rehabilitation, nutrition for dancers. (Formerly 7900:117)

**DNCE:158 Movement Fundamentals (2 Credits)**

Beginning study of Labanotation method of recording movement, and Laban's theories of effort, space, and shape. (Formerly 7900:320)

**DNCE:159 Ballroom Dance I (1 Credit)**

(May be repeated for a total of four credits.) Introduction to the basic patterns and techniques of major ballroom dances. (Formerly 7900:150)

**DNCE:160 Dance As An Art Form (2 Credits)**

Survey of dance for novice observer. aesthetics, philosophies, methods of training. Lecture and discussion of readings, viewing of film, videotape and live performances. (Formerly 7900:115)

**DNCE:200 Ballet III (3 Credits)**

(May be repeated for a total of 6 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 101. Continuation of DNCE 101. Emphasis on barre and developing strength. (Formerly 7900:224)

**DNCE:201 Ballet IV (3 Credits)**

Prerequisite: Permission or grade of B or better for one semester in DNCE 200. Continuation of DNCE 200. Emphasis on the increase of strength and flexibility. (May be repeated for a total of twelve credits) (Formerly 7900:225)

**DNCE:210 Modern III (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 111. Continuation of DNCE 111. Introduction to current modern dance styles and technique. (Formerly 7900:219)

**DNCE:211 Modern IV (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 210. Continuation of DNCE 210. Application of basic modern dance theory of current modern dance styles and techniques. (Formerly 7900:220)

**DNCE:220 Jazz Dance II (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better in DNCE 120. Continuation of basic jazz technique and stylistic range of jazz dance. (Formerly 7900:230)

**DNCE:230 Tap Dance II (2 Credits)**

(May be repeated for a total of four credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 130. Refinement of tap technique and stylistic range of tap dance. (Formerly 7900:145)

**DNCE:265 Viewing Dance (3 Credits)**

To explore dance as an art form through experiential activities, dance literature, film and live performance for non-dance majors. (Formerly 7900:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Arts

**DNCE:290 Special Topics in Dance (1-4 Credits)**

(May be repeated. No more than 10 credits may be applied toward the B.F.A. or B.A.) Prerequisite: Permission. Traditional and nontraditional topics in dance. (Formerly 7920:403)

**DNCE:300 Ballet V (4 Credits)**

(May be repeated for a total of 16 credits) Prerequisite: permission or a grade of B+ or better for one semester in DNCE 201. Theory, vocabulary, structure, placement. Concurrent enrollment in pointe class recommended. (Formerly 7900:122)

**DNCE:301 Ballet VI (4 Credits)**

(May be repeated for a total of 16 credits) Prerequisite: permission or a grade of B+ or better for one semester in DNCE 300. Continuation of DNCE 300, expanding theory on vocabulary, structure, placement. Concurrent enrollment in pointe class recommended. (Formerly 7900:222)

**DNCE:310 Modern V (3 Credits)**

(May be repeated for a total of 6 credits.) Prerequisite: Permission or a grade of B or better for one semester in DNCE 211. The intermediate study of modern dance styles and technique through the application of more complex movement theories, rhythmic patterns, and improvisational studies. (Formerly 7900:228)

**DNCE:311 Modern VI (3 Credits)**

(May be repeated for a total of 6 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 310. Introduction to intermediate theory of current modern dance styles and techniques. (Formerly 7900:229)

**DNCE:320 Jazz Dance III (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 220. Intermediate jazz dance technique and the jazz eras. (Formerly 7900:351)

**DNCE:330 Tap Dance III (2 Credits)**

(May be repeated for a total of 4 credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 230. Advancement of tap dance technique through the use of complex combinations, syncopation, routines, and styles. (Formerly 7900:246)

**DNCE:340 Partnering (2 Credits)**

Prerequisite: [DNCE 300 or DNCE 301 or DNCE 400 or DNCE 401] and [DNCE 310 or DNCE 311 or DNCE 410 or DNCE 411] or permission. An exploration of the fundamentals of dance partnering: weight sharing, centering, safety via contact improvisation. (Formerly 7900:333)

**DNCE:349 Learning Theory for Dance (2 Credits)**

Prerequisites: DNCE 160, DNCE 200 (or higher levels of ballet technique); PSYC 100 or EDFN 220; or permission of instructor. Theories of learning and their use in teaching dance. (Formerly 7900:361)

**DNCE:351 History of Ballet (2 Credits)**

Prerequisite: DNCE 160 or DNCE 265 or permission. Development of ballet beginning with its origins in French Courts through the Romantic and Diaghilev Eras to current times. (Formerly 7900:432)

**DNCE:352 Digital Technology for Dance (3 Credits)**

Hands-on exploration of theories and methods used in electronic development of promotional and creative materials. Activities include still and motion image capture, editing, and distribution. (Formerly 7900:274)

**DNCE:353 Instructional Strategies for Dance (2 Credits)**

Prerequisite: DNCE 349. Practical work and development of teaching skills in dance for public and private settings. (Formerly 7900:362)

**DNCE:354 Dance Philosophy and Criticism (3 Credits)**

Prerequisites: HIST 210 or HIST 221, PHIL 101, DNCE 160 and DNCE 351 or DNCE 355. Review of historical dance philosophies, performance, attributes, choreographic and theatrical elements of dance and criticism. (Formerly 7900:445)

**DNCE:355 Dance History: 20th Century (2 Credits)**

Prerequisite: DNCE 160 or DNCE 265 or permission. Development of modern dance as an art form and the further evolution of ballet and concert dance. (Formerly 7900:433)

**DNCE:356 Choreography I (2 Credits)**

Prerequisite: Permission or DNCE 211 or above. Theoretical and practical introduction to principles of choreography: space, time, energy. (Formerly 7900:316)

**DNCE:357 Choreography II (2 Credits)**

Prerequisite: DNCE 356 or permission. Continuation of DNCE 356. Emphasis on musical choices and finding movement specific to the individual choreographer. (Formerly 7900:317)

**DNCE:358 Pointe I (2 Credits)**

(May be repeated for a total of eight credits) Prerequisite: permission or DNCE 300 or above. Corequisite: DNCE 300 or above. Reinforcement of selection principles for pointe shoes, proper holding of foot muscularly and control of heel while ascending and descending from pointe. (Formerly 7900:141)

**DNCE:359 Pointe II (2 Credits)**

(May be repeated for a total of 12 credits) Prerequisite: permission or a grade of B or better for one semester in DNCE 358. Corequisite: DNCE 301 or above. Continuation of DNCE 358. Continued development of strength, coordination and endurance of holding foot muscularly. Further development and emphasis on principles of weight transfer. (Formerly 7900:241)

**DNCE:360 Rhythmic Analysis - Dance (2 Credits)**

Prerequisites: 32 credits and DNCE 101 or DNCE 111, or higher levels of ballet or modern dance technique, or permission. Lecture and application of basic rhythmic structures used in dance and dance instruction. (Formerly 7900:321)

**DNCE:400 Ballet VII (4 Credits)**

(May be repeated for a total of 24 credits.) Prerequisite: Permission or a grade of B+ or better for one semester in DNCE 301 Ballet VI. Continuation of DNCE 301. Emphasis on technique, style, line. Concurrent enrollment in point class is recommended. (Formerly 7900:322)

**DNCE:401 Ballet VIII (4 Credits)**

(May be repeated for a total of 32 credits.) Prerequisite: permission or a grade of B+ or better for one semester in DNCE 400. Continuation of DNCE 400. Advanced level of technique. Concurrent enrollment in pointe class recommended. (Formerly 7900:422)

**DNCE:410 Modern VII (3 Credits)**

(May be repeated for a total of 12 credits.) Prerequisite: permission or a grade of B or better in DNCE 311. Refinement and stylization of modern techniques for performance of modern dance. (Formerly 7900:328)

**DNCE:411 Modern VIII (3 Credits)**

(May be repeated for a total of 12 credits.) Prerequisite: permission or a grade of B or better in DNCE 410 Modern VII. Application of advanced modern dance techniques and styles. (Formerly 7900:329)

**DNCE:420 Jazz Dance IV (2 Credits)**

(May be repeated for a total of eight credits.) Prerequisite: permission or a grade of B or better for one semester in DNCE 320. Advanced jazz dance technique and styles for the professional dancer. (Formerly 7900:451)

**DNCE:430 Tap Dance IV (2 Credits)**

(May be repeated for a total of 8 credits.) Prerequisite: Permission or a grade of B or better for one semester in DNCE 330. Advanced tap combinations, styles, routines. (Formerly 7900:347)

**DNCE:440 Pas De Deux I (2 Credits)**

(May be repeated for a total of eight credits) Prerequisites: Permission; concurrent enrollment in a pointe class recommended. Provides student with the beginning understanding and practice of pas de deux. (Formerly 7900:334)

**DNCE:450 Choreography III (2 Credits)**

Prerequisite: DNCE 357 or permission. Continuation of DNCE 357. Emphasis on form and choreographic analysis. (Formerly 7900:416)

**DNCE:451 Choreography IV (2 Credits)**

Prerequisite: DNCE 450 or permission. Continuation of DNCE 450. Expanding into group choreography and longer works. (Formerly 7900:417)

**DNCE:453 Senior Seminar (1 Credit)**

Prerequisite: DNCE 352; senior standing or permission. A forum to develop professional skills to make the transition to a dance career: artistic, academic, or business. (Formerly 7900:471)

**DNCE:454 Seminar & Field Experience in Dance Education (2 Credits)**

Prerequisite: DNCE 353. Corequisite: DNCE 161. Supervised observation and teaching experience in dance education in the field. (Formerly 7900:461)

**DNCE:455 Professional Issues in Dance Education (2 Credits)**

Prerequisite: DNCE 454. Corequisite: DNCE 161. An examination of current issues and goals in dance education. (Formerly 7900:462)

**DNCE:456 Independent Study in Dance (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission and prearrangement with instructor. Individual creative project, research or readings in dance with faculty advisor. (Formerly 7900:497)

**DNCE:457 Honors Research Project in Dance (1-3 Credits)**

May be repeated for a total of six credits. Prerequisite: Approval of department preceptor. Creative project or research supervised by dance preceptor. (Formerly 7900:498)

**DNCE:490 Workshop in Dance (1-3 Credits)**

(May be repeated for a total of eight credits) Prerequisite: Permission. Group study/projects investigating a particular field of dance not covered by other courses. (Formerly 7900:490)

**DNCE:491 Special Topics in Dance (1-4 Credits)**

(May be repeated. No more than 10 credits may be applied toward the B.F.A. or B.A.) Prerequisite: Permission. Traditional and nontraditional topics in dance. (Formerly 7900:403)

## Dance Organizations (DNCEO)

**DNCEO:150 Classical Ballet Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of classical ballet repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:101)

**DNCEO:151 Contemporary Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of contemporary dance repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:103)

**DNCEO:152 Jazz Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of jazz dance repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:104)

**DNCEO:153 Touring Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of any dances prepared for touring purposes. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:111)

**DNCEO:154 Character Ballet Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of character ballet repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:102)

**DNCEO:155 Dance Production Ensemble (1 Credit)**

By permission only. Participation in technical assistance, preparation and performance of student dance productions: theory and laboratory. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:112)

**DNCEO:156 Musical Comedy Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of dance production numbers in a musical comedy. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:105)

**DNCEO:157 Opera Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of dance sequences in an opera. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:106)

**DNCEO:158 Experimental Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of avant-garde dances. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:107)

**DNCEO:159 Ethnic Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of ethnic dance repertoire. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:109)

**DNCEO:160 Period Dance Ensemble (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of dances from specific historical periods such as the Renaissance or Baroque eras. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:110)

**DNCEO:161 Choreographers Workshop (1 Credit)**

By audition only. Participation in rehearsal and preparation for public performance of student dances. \*\*Course may be repeated for credit. Total credit for graduation may not exceed 12 credits. All courses are by audition only. (Formerly 7910:108)

**DNCEO:191 Dance Organizations: Workshop (1 Credit)**

By permission only. Participation in a dance workshop as volunteer, participant and/or presenter that forwards and augments the student's dance education and networking skills. (Formerly 7910:113)

## Developmental Programs (DEVP)

**DEVP:42 Basic Writing (0 Credits)**

Provides intensive practice in the process of writing, in sentence structure and punctuation, and in correct written expression. Upon successful completion of Basic Writing, the student should be prepared to enter English Composition I (ENGL 111). Writing Lab hours are required. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 42)

**DEVP:50 Basic Mathematics I (0 Credits)**

Prerequisite: Placement. An intensive review of arithmetic and an introduction to the concepts of elementary algebra. Emphasis is placed on developing learning strategies and controlling anxieties. Upon successful completion of Basic Mathematics I, the student should be prepared to enter Basic Mathematics II. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 50)

**DEVP:52 Basic Mathematics II (0 Credits)**

Prerequisite: Completion of DEVP 50 with a grade of C or better or placement test. A brief review of arithmetic and intensive instruction in elementary algebra. Emphasis is placed on developing learning strategies and controlling anxieties. Upon successful completion of Basic Mathematics II, the student should be prepared to enter Elements of Math I (MATH 151); or Fundamentals of Math V (DEVP 85). \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 52)

**DEVP:54 Basic Mathematics II Supported (0 Credits)**

Prerequisites: DEVP 50 and approval from Developmental Programs. See Basic Mathematics II (DEVP 52). Double length class period allows supplemental instruction and assistance in beginning algebra. Emphasis on developing learning strategies and controlling anxieties. Upon successful completion of Basic Mathematics II Supported, the student should be prepared to enroll in DEVP 85 or MATH 151 or MATH 161 or STAT 250 or MATH 135. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 54)

**DEVP:56 Basic Mathematics II Extended - Part A (0 Credits)**

Prerequisite: DEVP 50 and approval from Office of Accessibility. First half of a slower paced two-semester version of Basic Mathematics II (DEVP 52). Introduces elementary algebra, linear equations, polynomials, graphing, slope. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 56)

**DEVP:57 Basic Mathematics II Extended - Part B (0 Credits)**

Prerequisite: DEVP 56 (Part A). Second half of a slower paced two-semester version of Basic Mathematics II (DEVP 52) covering factoring, rational expressions, radicals, and quadratic equations. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 57)

**DEVP:60 College Reading (0 Credits)**

Prerequisite: Placement. Designed to strengthen the basic comprehension skills needed for academic work, including recognition of main points and key supporting ideas, inferencing, summarizing, and vocabulary development. Upon satisfactory completion of College Reading, the student should be prepared to enter College Reading and Study Skills (DEVP 62). Lab hours are required. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 60)

**DEVP:62 College Reading & Study Skills (0 Credits)**

Prerequisite: College Reading (DEVP 60) or placement. Continued practice of comprehension strategies with emphasis on textbook reading, and implementation of effective study strategies such as note-taking, test-taking, and memory techniques. Upon successful completion of College Reading and Study Skills, the student should be prepared to apply reading and study strategies in college classes. Lab hours are required. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 62)

**DEVP:64 Applied Study Strategies (0 Credits)**

Corequisite: Selected General Education Courses taken concurrently. Designed to help students apply various study strategies to a specific course, such as psychology, sociology and others. Includes lecture and textbook analysis, memory techniques, and test-taking strategies. Lab hours are required. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 64)

**DEVP:71 Developmental Chemistry (0 Credits)**

Prerequisite: DEVP 52 or DEVP 57 or equivalent with a grade of C or better. A mathematics review applied to chemistry and intensive instruction in principles of general chemistry. Emphasis is placed on developing learning strategies and controlling anxieties. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 71)

**DEVP:81 Fundamental Mathematics I (0 Credits)**

Prerequisite: Placement by Academic Advisor. An intensive review of arithmetic with an emphasis on learning strategies and controlling anxieties. Upon successful completion of Fundamental Mathematics I, the student should be prepared to enroll in Fundamental Math II. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 81)

**DEVP:82 Fundamental Mathematics II (0 Credits)**

Prerequisite: Placement by academic advisor or DEVP 81. Upon successful completion of Fundamental Mathematics II, the student should be prepared to enroll in Fundamental Math III. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 82)

**DEVP:83 Fundamental Mathematics III (0 Credits)**

Prerequisite: Placement by academic advisor or DEVP 82. Upon successful completion of Fundamental Mathematics III, the student should be prepared to enroll in Fundamental Math IV. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 83)

**DEVP:84 Fundamental Mathematics IV (0 Credits)**

Prerequisite: Placement by academic advisor or DEVP 83. Upon successful completion of Fundamental Mathematics IV, the student should be prepared to enroll in DEVP 85 or MATH 151 or MATH 161 or STAT 250 or MATH 135. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 84)

**DEVP:85 Fundamentals of Mathematics V (0 Credits)**

Prerequisites: Placement or successful completion of one of the following: DEVP 52, DEVP 54, DEVP 57, DEVP 84. Introduction in elementary algebra including factoring, functions, graphing, roots and radicals. Upon successful completion of Fundamental Mathematics V, the student should be prepared to enroll in Algebra for Calculus. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 85)

**DEVP:99 Special Topics: Developmental Programs (0 Credits)**

Instruction in one or more of the following basic skills: writing, reading, mathematics, and study skills. A combination of these skills may be presented with an overall theme such as "writing, reading and technology." See the current Schedule of Classes for course offerings. \*\* Load hours do not carry academic credit toward a degree program and are not used in probation and dismissal decisions, but do count in computing a student's load for financial aid and student employment. (Formerly 2010: 99)

## Digital Forensics Technology (DGFR)

**DGFR:100 Introduction to Digital Forensics (3 Credits)**

An overview of digital forensics and computer-related issues facing government and businesses. Specific focus on forensic examinations and methodologies used in the field. (Formerly 2235:100)

**DGFR:280 Cybercrime (3 Credits)**

Examines crime and deviance in cyberspace. Particular focus is on the prevention of computer intrusion in the workplace. (Formerly 2235:280)

**DGFR:281 Computer Forensic Methods (3 Credits)**

Prerequisite: DGFR 100. Examination of computer forensic methods employed to identify, collect, recover, authenticate, preserve, analyze, and document electronic evidence for criminal or civil legal purposes. (Formerly 2235:281)

**DGFR:282 Digital Forensic Imaging (3 Credits)**

Prerequisite: DGFR 100 or CRJU 100. This course cover the general principles of photography and practical elements and advanced concepts of forensic photography. (Formerly 2235:282)

**DGFR:283 Cyber Warfare (3 Credits)**

Prerequisite: DGFR 280. Examines the participants, tools and techniques in digital conflicts and explores how to defend against espionage, hactivism, non-state actors and terrorists. (Formerly 2235:283)

**DGFR:284 Windows Forensics (3 Credits)**

Prerequisite: DGFR 281. An examination of the tools, methodology, and advanced digital forensic analysis of the Windows Registry and the Microsoft Windows operating systems. (Formerly 2235:284)

**DGFR:381 Computer Forensic Methods II (3 Credits)**

Prerequisite: DGFR 281. Obtaining and analyzing digital information from computer storage media to determine details of origin and content. (Formerly 2235:381)

**DGFR:382 File System Analysis (3 Credits)**

Prerequisite: DGFR 281. The analysis of volumes, partitions, and data files to understand the design of file systems and data structures. (Formerly 2235:382)

**DGFR:383 Ethical Hacking (3 Credits)**

Prerequisite: DGFR 283. An examination of the tools, methods, and structured approaches to conducting basic security testing to protect computer networks from attacks. (Formerly 2235:383)

**DGFR:440 Intrusion Detection (3 Credits)**

Prerequisites: DGFR 441 and CISS 388, both with a grade of C or better, and junior or greater standing. This course will introduce students to the various methods used to detect external and internal intrusion of computer systems. (Formerly 2235:440)

**DGFR:441 Network Forensics I (3 Credits)**

Prerequisites: DGFR 281 with a grade of C or better and junior or greater standing . This course will provide the student with basic knowledge of surveillance of networking devices, identifying and preventing attacks and incident response. (Formerly 2235:441)

**DGFR:442 Wireless Forensics (3 Credits)**

Prerequisite: DGFR 441 with a grade of C or better and junior or greater standing. The forensic identification and tracking of attacks on wireless networks and mobile communications devices. (Formerly 2235:442)

**DGFR:443 Network Forensics II (3 Credits)**

Prerequisite: DGFR 441 with a grade of C or better or junior or greater standing. Deployment, building and running an NSM operation using open source software and vendor neutral tools with the Linx Operating System (Formerly 2235:443)

**DGFR:480 Digital and Scientific Evidence (3 Credits)**

Prerequisite: CRJU 104. Examination of the role of scientific and digital evidence in the legal system. Courtroom admissibility and presentation rules are covered. (Formerly 2220:480)

## Economics (ECON)

**ECON:100 Introduction to Economics (3 Credits)**

May not be substituted for ECON 200, ECON 201, or ECON 244. Economics primarily concerned in a broad social science context. Adequate amount of basic theory introduced. Cannot be used to satisfy major or minor requirements in economics. (Formerly 3250:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**ECON:200 Principles of Microeconomics (3 Credits)**

No credit if ECON 244 already taken. Analysis of behavior of the firm and household, and their impact on resource allocation, output and market price. (Formerly 3250:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**ECON:201 Principles of Macroeconomics (3 Credits)**

Prerequisite: ECON 200. No credit if ECON 244 already taken. Study of the economic factors which affect the price level, national income, employment, economic growth. (Formerly 3250:201)

**ECON:226 Computer Skills for Economic Analysis (3 Credits)**

Prerequisites: ECON 100 or ECON 200 or ECON 244. Application of word processing, spreadsheets, presentation packages, SAS, the Internet, library resources, and other computer tools in communicating economic analysis. (Formerly 3250:226)

**ECON:230 Economics of Social Policy Issues (3 Credits)**

Prerequisite: ECON 100, or ECON 200 and ECON 201, or ECON 244 or permission of the instructor. Investigation of selected labor and social policy issues. Examples include health care, economic demography, anti-poverty programs, immigration, discrimination, and the impact of unemployment and inflation. (Formerly 3250:230)

**ECON:244 Introduction to Economic Analysis (3 Credits)**

No credit to a student who has completed ECON 200 and ECON 201. Recommended for engineering and mathematical science majors. Intensive introduction to analysis of modern industrial society and formulation of economic policy. Structure of economic theory and its relation to economic reality. (Formerly 3250:244)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**ECON:310 Managerial Economics (3 Credits)**

Prerequisites: ECON 200 or ECON 244. Application of economic analysis to management problems; the organization of enterprises and the allocation of their resources; decision making under uncertainty; strategic behavior. (Formerly 3250:310)

**ECON:325 Applied Econometrics I (3 Credits)**

Prerequisites: [STAT 261 and STAT 262] or STAT 401 or STAT 461 or MGMT 304. Students learn SAS coding and the foundations of data science. Course covers multiple regression estimation and inference analysis and concludes with a research paper. (Formerly 3250:325)

**ECON:326 Applied Econometrics II (3 Credits)**

Prerequisite: ECON 325. Violations of the classical assumptions of the regression model and corrections are explored along with regression analysis of time series data. Culminates with a research paper. (Formerly 3250:326)

**ECON:330 Labor Problems (3 Credits)**

Prerequisites: [ECON 200, or ECON 201, or ECON 244]. Labor economics, principles and public policy. Study of structure of labor market and impact unions have on labor management relations. (Formerly 3250:330)

**ECON:333 Labor Economics (3 Credits)**

Prerequisite: ECON 200 or ECON 244. Theoretical tools used in analysis of problems of labor in any modern economic system. Emphasis given to examination of determinants of demand for and supply of labor. (Formerly 3250:333)

**ECON:350 Women and the Economy (3 Credits)**

Prerequisite: ECON 100 or ECON 200 or ECON 244 or permission of the department. An economic analysis of the role gender plays in decisions (family formation, fertility, childcare, work) and outcomes (the gender wage gap, economic development). (Formerly 3250:350)

**ECON:360 Industrial Organization & Public Policy (3 Credits)**

Prerequisites: ECON 200 or ECON 244. Role of industrial structure and firm conduct in performance of industry and way in which antitrust policy is designed to provide remedies where performance is unsatisfactory. (Formerly 3250:360)

**ECON:380 Money & Banking (3 Credits)**

Prerequisite: ECON 201. Institutions of money, banking and credit, monetary expansion and contraction, public policies affecting this process, development of our money and banking system. (Formerly 3250:380)

**ECON:385 Economics of Natural Resources & the Environment (3 Credits)**

Prerequisites: [ECON 100 or ECON 200 or ECON 244] or permission. Introduction to economic analysis of use of natural resources and economics of environment. Problems of water and air pollution, natural environments, natural resource scarcity, conservation, economic growth. (Formerly 3250:385)

**Gen Ed:** - Complex Issues Facing Society

**ECON:400 Intermediate Macroeconomics (3 Credits)**

Prerequisites: ECON 201 and [MATH 145 or higher math]. Changes in national income, production, employment, price levels, long-range economic growth, short-term fluctuations of economic activity. (Formerly 3250:400)

**ECON:405 Economics of the Public Sector (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244. Considers nature and scope of government activity, rationale for government intervention, problems of public choice, taxation and revenue-raising, cost-benefit analysis, program development and evaluation. (Formerly 3250:405)

**ECON:406 State & Local Public Finance (3 Credits)**

Prerequisite: ECON 410; recommended: ECON 405. Examines economic rationale and problems for provision of goods and services by different governmental units. Considers alternative revenue sources and special topics. (Formerly 3250:406)

**ECON:410 Intermediate Microeconomics (3 Credits)**

Prerequisites: [ECON 200 or ECON 244] and [MATH 145 or higher math]. Advanced analysis of consumer demand, production costs, market structures, determinants of factor income. (Formerly 3250:410)

**ECON:415 Cost-Benefit Analysis (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244. Introduction to tool for public project evaluation. Includes development of analytical framework and methods of determining benefits and costs over time. Stresses application of techniques. (Formerly 3250:415)

**ECON:423 Applied Game Theory (3 Credits)**

Prerequisite: ECON 200. Application of the basic concepts of game theory (analysis of strategic behavior) to relevant economics issues including bargaining, cartels, voting, conflict resolution and non-competitive pricing. (Formerly 3250:423)

**ECON:426 Applied Econometrics (3 Credits)**

Prerequisites: STAT 261, STAT 262, and [ECON 200 and ECON 201] or ECON 244. Application of regression analysis to economic and social sciences data. Discusses typical problems from applied research, including estimation technique, hypothesis testing, and modeling framework. (Formerly 3250:426)

**ECON:427 Economic Forecasting (3 Credits)**

Prerequisites: [(STAT 261 and STAT 262) or STAT 401 or STAT 461 or MGMT 304] and [(ECON 200 and ECON 201) or ECON 244]. Methods for building, identifying, fitting and checking dynamic economic models and use of these models for forecasting. Emphasis on application of available computer software systems. (Formerly 3250:427)

**ECON:430 Labor Market and Social Policy (3 Credits)**

Prerequisite: [ECON 200 and ECON 201] or ECON 244 or permission of instructor. Intensive study of current labor and social policy issues (e.g., discrimination, poverty, migration, education, demographic and labor market changes, impact of international trade on employment). (Formerly 3250:430)

**Gen Ed:** - Complex Issues Facing Society

**ECON:432 Economics & Practice of Collective Bargaining (3 Credits)**

Prerequisite: ECON 200 or ECON 244. Principles and organization of collective bargaining, collective bargaining agreements, issues presented in labor disputes and settlements, union status and security, wage scales, technological change, production standards, etc. (Formerly 3250:432)

**ECON:434 Labor Market Analysis and Evaluation (3 Credits)**

Prerequisites: A minimum of 12 credits of 300- or 400-level economics coursework that includes ECON 325, ECON 326 and ECON 410. Applied labor market research using specialized techniques. Employment, health, education, and other current policy issues and programs analyzed and evaluated. Original research project required. (Formerly 3250:434)

**ECON:436 Health Economics (3 Credits)**

Prerequisites: ECON 100 or ECON 200 or ECON 244 or permission of instructor. Economic analysis of health care. Stresses health policy issues, includes study of demand and supply of medical services and insurance, analysis of health care industries. (Formerly 3250:436)

**ECON:438 Economics of Sports (3 Credits)**

Prerequisites: ECON 100 or ECON 200 or ECON 244 or permission of instructor. Sports franchises as profit maximizing firms; costs and benefits of a franchise to a city; labor markets in professional sports; the economics of college sports. (Formerly 3250:438)

**ECON:440 Special Topics in Economics (3 Credits)**

Prerequisite: [ECON 200 and ECON 201] or ECON 244 or permission of department. Opportunity to study special topics and current issues in economics. (Formerly 3250:440)

**ECON:460 Economics of Developing Countries (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244. Basic problems in economic development. Theories of economic development, issues of political economy and institutions. Topics include poverty, population, migration, employment, finance, international trade and environment. (Formerly 3250:460)

**Gen Ed:** - Global Diversity

**ECON:461 Principles of International Economics (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244, or permission of the Economics department. International trade and foreign exchange, policies of free and controlled trade, international monetary problems. (Formerly 3250:461)

**ECON:475 Development of Economic Thought (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244, or permission of the Economics department. Evolution of theory and method, relation of ideas of economists contemporary to conditions. (Formerly 3250:475)

**ECON:481 Monetary & Banking Policy (3 Credits)**

Prerequisites: ECON 380, ECON 400; or permission of the Economics department. Control over currency and credit, policies of control by central banks and governments, United States Treasury and Federal Reserve System. (Formerly 3250:481)

**ECON:487 Urban Economics:Theory & Policy (3 Credits)**

Prerequisites: [ECON 200 and ECON 201] or ECON 244, or permission of instructor. Analysis of urban issues from an economic perspective. Emphasis on urban growth, land-use patterns, housing, income distribution, poverty and urban fiscal policy. (Formerly 3250:487)  
**Gen Ed:** - Domestic Diversity

**ECON:490 Individual Study in Economics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission of instructor. Independent study in economics under supervision and evaluation of selected faculty member. (Formerly 3250:490)

**ECON:491 Workshop: Economics (1-3 Credits)**

(May be repeated) Prerequisite: Permission of the Economics department. Group studies of special topics in economics. May not be used to meet undergraduate or graduate major requirements in economics. May be used for elective credit only. (Formerly 3250:491)

**ECON:495 Internship in Economics (1-3 Credits)**

Prerequisites: ECON 200, ECON 201 and at least three additional courses in economics at the 300- or 400-level. Supervised placement in appropriate position in public or private sector organizations. Reports and written assignments required. (Formerly 3250:495)

**ECON:496 Senior Project in Economics (2 Credits)**

Prerequisites: ECON 400, ECON 410, ECON 426. Corequisites: ECON 405 or ECON 423 or ECON 430 or ECON 460 or ECON 461 or ECON 475 or ECON 481 or ECON 487. Taken concurrently with or following a 400-level field Economics course. Involves independent out-of-class work on a project designed in consultation with the designated 400-level course instructor. (Formerly 3250:496)

**ECON:497 Honors Project in Economics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Senior standing in Honors College. Individual senior honors thesis on a creative project relevant to economics, approved and supervised by faculty member of the department. (Formerly 3250:497)

## Educational Foundations and Leadership (EDFN)

**EDFN:150 Democracy & Education (3 Credits)**

Based on an interdisciplinary inquiry, this course examines varied theories and practices of democratic education. (Formerly 5100:150)

**EDFN:200 Introduction to Education (3 Credits)**

Prerequisite: 13-15 sem. hrs. of specific GenEd courses; FBI/BCI background checks. Introduction to the teaching profession designed to explore the purposes of schools in society and what is required to be an effective teacher today. This course will include 10 field hours of field observation in an urban setting. (Formerly 5100:200)

**EDFN:205 Fundamental Educational Computer Skills (1 Credit)**

Elective Course: Computer skills for education majors with little or no computer experience. Includes word processing, databases, graphics and communications. Cannot substitute for any required course. (Formerly 5100:205)

**EDFN:210 Characteristics of Learners (3 Credits)**

Prerequisite: Completion of all LBJFF School of Education program admission requirements. Corequisite: EDFN 211. Describe cognitive, psychosocial, physical, language, and moral development of learners Pre-K through adult. Identifies learner needs, roles of teachers and schools in fostering optimal development. (10 hours of field experience included.) (Formerly 5100:210)

**EDFN:211 Teaching & Learning Strategies (3 Credits)**

Prerequisite: Completion of all LBJFF School of Education admission requirements. Corequisite: EDFN 210. From course content and activities, students will recognize, select, and practice various instructional models. Students will acquire and apply appropriate learning and motivational strategies. (10 hours of field experience included.) (Formerly 5100:211)

**EDFN:220 Educational Psychology (3 Credits)**

Prerequisite: 13-15 sem. hrs. of specific GenEd courses; EDFN 200 (may be taken as prerequisite or corequisite); FBI/BCI background checks. Focuses on the developmental influences and characteristics of learners, and psychological principles pertaining to teaching and learning processes, motivation and self-regulation in learners. (Formerly 5100:220)

**EDFN:300 Educational Equity and Excellence in a Culturally Pluralistic Society (3 Credits)**

Prerequisites: EDFN 200, EDFN 220, EDCI 230, EDIS 225. Corequisite with or prerequisite to EDCI 360. Engages teacher candidates in inquiry-based seminars and service learning that facilitate their developing pedagogical competence implementing equity and excellence in education. (Formerly 5100:300)

**EDFN:330 Early Adolescent Learner (3 Credits)**

Study of issues in adolescent development, particularly as it relates to educational settings. Physical, cognitive, language, emotional, social, and moral development in learners 8-14 years old. (Formerly 5100:330)

**EDFN:410 Professional Issues in Education (3 Credits)**

Prerequisites: EDCI 310, EDCI 311, EDCI 320, EDCI 330, and admission to the LBJFF School of Education. Course work applies social and philosophical foundations of education to current and historical issues in education with attention to roles and responsibilities of contemporary teachers. (Formerly 5100:410)

**EDFN:420 Introduction to Instructional Computing (3 Credits)**

Prepares the student in the use of instructional technologies in educational and business settings. Segments of the course are offered in an online format. (Formerly 5100:420)

**EDFN:430 Senior Honors Project: Foundations (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5100:430)

**EDFN:480 Special Topics: Educational Foundations (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5100:480)

**EDFN:481 Special Topics: Educational Administration (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5700:480)

**EDFN:490 Workshop: Educational Foundations & Leadership (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5100:490)

**EDFN:491 Workshop: Educational Foundations & Leadership (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5100:491)



**EDFN:492 Workshop: Educational Foundations & Leadership (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5100:492)

**EDFN:493 Workshop: Educational Foundations & Leadership (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5700:492)

**EDFN:494 Workshop: Educational Foundations & Leadership (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5700:493)

**EDFN:495 Educational Institutes in Educational Foundations & Leadership (1-4 Credits)**

Special course designed as in-service upgrading programs. (Formerly 5100:494)

**EDFN:496 Educational Institutes: Education Foundations & Leadership (1-4 Credits)**

Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations. (Formerly 5700:494)

**EDFN:497 Independent Study (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Permission of department head and instructor. Specific area of study determined in accordance with program and professional goals. (Formerly 5100:497)

## Electrical and Electronic Engineering Technology (EEET)

**EEET:120 Circuit Fundamentals (4 Credits)**

Prerequisite: MATH 152 or permission. SI units, current, voltage, resistance, Ohm's Law, circuit analysis, network theorems, computer simulation, inductor, capacitor, RLC dc analysis, transients, laboratory support of circuit concepts, ac introduction. (Formerly 2860:120)

**EEET:121 Introduction to Electronics and Computers (2 Credits)**

Prerequisite: MATH 151. Introduces students to computer simulation, Boolean algebra, circuit manufacturing, laboratory practices, and to the electronics industry. (Formerly 2860:121)

**EEET:122 AC Circuits (4 Credits)**

Prerequisite: EEET 120. Corequisite: MATH 154. Sinusoidal voltage and current, reactance and impedance, methods of AC circuit analysis, AC power, transformers, AC meters and oscilloscopes, dependent and independent sources. (Formerly 2860:122)

**EEET:123 Electronic Devices (4 Credits)**

Prerequisite: EEET 120. Physical theory, characteristics and operational parameters of solid-state devices. Analysis and design of electronic circuits incorporating these devices, utilizing characteristic curves and linear modeling. (Formerly 2860:123)

**EEET:210 Industrial Control Panel Fabrication (2 Credits)**

Prerequisite: MATH 152. This course will introduce students to shop fabricating skills involved in the creation of electrical control panels using mechanical and electrical fabricating tools. (Formerly 2860:210)

**EEET:225 Applications of Electronic Devices (4 Credits)**

Prerequisites: EEET 122 and EEET 123. Frequency response, filter concepts, electronic amplifiers, power amplifiers, multistage amplifiers, differential amplifiers, operational amplifiers, voltage regulators, feedback and oscillators, special devices, computer simulation analysis. (Formerly 2860:225)

**EEET:237 Digital Circuits (4 Credits)**

Prerequisite: EEET 121. Devices used in logic circuits, interfacing, combinational logic, arithmetic circuits, encoders, multiplexers, programmable logic devices, flip-flops, counters, shift registers, computer modeling of digital circuits. (Formerly 2860:237)

**EEET:238 Microprocessor Applications (4 Credits)**

Prerequisite: EEET 237. Programmable logic devices, computer modeling of digital circuits, memory circuits. Computer architecture, programming the microprocessor, microprocessor hardware, microprocessor applications, parallel I/O and programmable timers. (Formerly 2860:238)

**EEET:242 Machinery & Controls (3 Credits)**

Prerequisite: EEET 120 or EEET 370. Introductory study of DC and AC motors and their control. Ladder logic input devices, relays, and motor starters are explored as applied to starting DC & AC 3 Phase Induction motors. Variable Frequency Drives and Softstarts are applied with various control input schemes to AC 3 Phase Induction motors. Application of Programmable Logic Controllers and Human Machine Interfaces to the control of AC 3 Phase Induction motors. (Formerly 2860:242)

**EEET:251 Electronic Communications (4 Credits)**

Prerequisite: EEET 225. Resonance, coupling, filters, oscillators, mixers, power amplifiers, AM, FM, receivers. (Formerly 2860:251)

**EEET:260 Electrical and Electronic Project (2 Credits)**

Prerequisites: EEET 225 and EEET 242. Design, construction, and testing of an electrical or electronic circuit of choice. Progress reports, oral, and a poster presentation required. Discussion of electrical and electronic design, fabrication, and troubleshooting techniques. (Formerly 2860:260)

**EEET:290 Special Topics: Electronic Engineering Technology (1-4 Credits)**

Prerequisite: Permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor(may be repeated for a total of six credits). (Formerly 2860:290)

**EEET:310 National Electrical Code and Electrical System Design (3 Credits)**

Prerequisite: EEET 122 or EEET 370. This course provides students with the skills necessary to apply the National Electrical Code (NFPA 70) to the design and installation of electrical systems and circuits. (Formerly 2860:310)

**EEET:350 Advanced Circuit Theory (3 Credits)**

Corequisite: MATH 356. Nodal, mesh, Thevenin, and dependent sources in resistive circuits. Inductor and capacitor as time domain elements. First- and second-order circuit analysis. Phasor analysis. Operational amplifier analysis. (Formerly 2860:350)

**EEET:352 Microcontrollers (4 Credits)**

Prerequisite: EEET 238. Corequisite: EEET 350. Using a typical microcontroller, study its architecture, program it, use subroutines and interrupts, use it in various applications, utilize various on-board modules including analog-to-digital, and timers. (Formerly 2860:352)

**EEET:354 Advanced Circuits Applications (3 Credits)**

Prerequisites: MATH 356 and EEET 350. Introduction to calculus based circuit analysis. Emphasizing Laplace transforms in operational circuit analysis, transfer functions, impulse function, Bode diagrams, Fourier Series. (Formerly 2860:354)

**EEET:360 Virtual Instrumentation and Data Acquisition (3 Credits)**

Prerequisites: EEET 122 and EEET 370. An introduction to instrumentation, data acquisition (DAQ) and graphical programming used in manufacturing and laboratory environments. (Formerly 2860:360)

**EEET:370 Survey of Electronics I (3 Credits)**

Prerequisite: MATH 154. Fundamentals of DC and AC electrical circuits and rotating machinery. For non-Electrical and Electronic Engineering Technology majors. (Formerly 2860:370)

**EEET:371 Survey of Electronics II (3 Credits)**

Prerequisite: EEET 370. Survey of the most commonly used solid state circuit components including typical applications. Introduction into digital circuits and microprocessor applications. For non-Electronic Technology majors. (Formerly 2860:371)

**EEET:400 Computer Simulations in Technology (3 Credits)**

Prerequisites: MATH 345 and EEET 354. Introduce the use of software widely used in industry to simulate and study electrical circuits and signals. Methods of data sampling, management and presentation will be studied. (Formerly 2860:400)

**EEET:406 Communication Systems (3 Credits)**

Prerequisites: EEET 251 and EEET 354. Digital communications, transmission lines, waveguides, microwave devices and antennas. (Formerly 2860:406)

**EEET:420 Biomedical Electronic Instrumentation (3 Credits)**

Prerequisite: EEET 354. Introduction to electrical signals from the body, transducers, recording devices, telemetry, microprocessor applications, and electrical safety of medical equipment. (Formerly 2860:420)

**EEET:451 Industrial Electrical Systems (3 Credits)**

Prerequisite: EEET 354. Electric power, industrial nameplates, power factor correction, mutual inductance, linear transformers, power transformers, polyphase systems, per-phase analysis, system grounding, protective device coordination computer-aided analysis. (Formerly 2860:451)

**EEET:452 Advanced Microcontrollers (3 Credits)**

Prerequisite: EEET 352. This is an advanced embedded programming class for technologists covering structured programming, embedded operating systems, multitasking, semaphores and queues, WiFi, HTML and web page servers, data servers, clocks and scheduling, sending email, WAN access, Bluetooth, and UDP communication. Hands-on hardware includes LEDs, RGB LED strands, DAC/DMA audio generation, PIR proximity sensors, and may optionally include inertial sensors. (Formerly 2860:452)

**EEET:453 Control Systems (4 Credits)**

Prerequisites: EEET 354 and AMET 301. Modeling and responses of closed-loop systems. Laplace transforms, root-locus analysis. Stability, compensation, digital control, optimal control. Digital computer in system simulation and design. (Formerly 2860:453)

**EEET:455 Senior Project (2 Credits)**

Prerequisite: Senior standing. Capstone experience consisting of Electrical or Electronic Project emphasizing creative technical analysis or design and presentation. (may be repeated for a total of six credits). (Formerly 2860:455)

**Gen Ed:** - Capstone

**EEET:490 Special Topics: Electronic Engineering Technology (1-4 Credits)**

Prerequisite: Permission of instructor. Directed study in a special field of interest chosen by the student in consultation with the instructor (may be repeated for a total of six credits). (Formerly 2860:490)

**EEET:497 Senior Honors Project: Electronic Technology (1-3 Credits)**

Prerequisites: Senior standing in Honors Program, permission of department preceptor, and major in electronic technology. Independent research leading to completion of Senior Honors Thesis or other original work. (May be repeated for a total of six credits) (Formerly 2860:497)

# Electrical Engineering (ELEN)

**ELEN:101 Tools for Electrical Engineering (3 Credits)**

Pre/Corequisite: MATH 221 or MATH 149. Orientation to degree programs and design practice in electrical and computer engineering. Introduction to computer applications and resources for engineering studies. (Formerly 4400:101)

**ELEN:230 Circuits I Laboratory (1 Credit)**

Pre/Corequisite: ELEN 231. Computation, computer aided circuit analysis, circuit theorem confirmation, report writing to include data analysis and reduction, introduction to electrical measurements. (Formerly 4400:230)

**ELEN:231 Circuits I (3 Credits)**

Pre/Corequisite: ELEN 230, MATH 223, PHYS 292. DC and AC linear circuit analysis. Operational amplifier circuits. Loop and nodal analyses. Network theorems. Phasor techniques, steady-state AC power, three-phase systems. (Formerly 4400:231)

**ELEN:301 Undergraduate Research I: Electrical Engineering (1 Credit)**

Prerequisites: ELEN 230, ELEN 231, ELEN 330, ELEN 332, CPEN 220, [ELEN 101 or CPEN 101] with a combined average grade of 3.0 or higher, admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4400:301)

**ELEN:302 Undergraduate Research II: Electrical Engineering (1 Credit)**

Prerequisites: [ELEN 301 or CPEN 301], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4400:302)

**ELEN:303 Undergraduate Research III: Electrical Engineering (1 Credit)**

Prerequisites: [ELEN 302 or CPEN 302], admission to an engineering major within the College of Engineering and Polymer Science, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report to the department, and presentation of work in a research venue outside the department. (Formerly 4400:303)

**ELEN:304 Undergraduate Research IV: Electrical Engineering (1 Credit)**

(May be repeated. May not be applied to degree requirements.) Prerequisite: ELEN 303 or CPEN 303, and permission. Research project, supervised by faculty member of the department; requires oral research presentation and written report. (Formerly 4400:304)

**ELEN:307 Basic Electrical Engineering (4 Credits)**

Prerequisite: PHYS 292. Pre/Corequisite: MATH 335. Covers fundamental aspects of electrical circuits, electronics and electrical machinery. Not open to an electrical or computer engineering major. (Formerly 4400:307)

**ELEN:309 Design Project Seminar - Electrical Engineering (1 Credit)**

Prerequisites: Junior or higher standing and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: ELEN 341, [ELEN 350 or ELEN 354], ELEN 361, ELEN 371, and ELEN 381. Engineering capstone project selection and proposal, including preliminary technical specifications. Professional ethics. Intellectual property. Societal impact issues in engineering design. (Formerly 4400:309)

**ELEN:330 Circuits II Laboratory (1 Credit)**

Pre/Corequisite: ELEN 332. Computation, computer aided circuit analysis, circuit theorem confirmation, report writing to include data analysis and reduction, intermediate electrical measurements. (Formerly 4400:330)

**ELEN:332 Circuits II (3 Credits)**

Prerequisite: ELEN 231 with a grade of C- or better. Pre/Corequisites: MATH 335 and ELEN 330. Coupled magnetic circuits. Transient and frequency domain analyses of linear circuits. Bode plots, Laplace transforms, transfer functions, resonance, passive and active filters. (Formerly 4400:332)

**ELEN:340 Signals & Systems (4 Credits)**

Prerequisites: [CPSC 209 or CPEN 208 or CPEN 210 or BMEN 220], MATH 335 with a grade of C- or better, ELEN 332 with a grade of C- or better, and admission to an engineering major within the College of Engineering and Polymer Science. Linear systems theory and transform analysis techniques for continuous and discrete systems. Convolutions, Laplace transforms, continuous and discrete Fourier transforms. Difference equations and Z transforms. (Formerly 4400:340)

**ELEN:341 Introduction to Communication Systems (3 Credits)**

Prerequisites: ELEN 340 with a grade of C- or better and admission to an engineering major within the College of Engineering and Polymer Science. Introduces analog and digital communication systems and signal processing. Time-sampling and filtering. Modulation and demodulation techniques. Noise and bandwidth requirements. System design and performance analysis. (Formerly 4400:341)

**ELEN:350 Engineering Electromagnetics (4 Credits)**

Prerequisites: MATH 223, ELEN 231 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: MATH 335. Vector analysis. Electrostatics: electrostatic field, scalar potential, dielectrics, boundary-value problems. Magnetostatics: Ampere's law, force and energy. Faraday's law, time-harmonic fields. Maxwell's equations: Introduction to plane waves. Propagation, reflection, and refraction, introduction to the concept of guided waves. Theory and application of transmission lines: transient and steady-state waves. The Smith chart. (Formerly 4400:350)

**ELEN:353 Electromagnetics I (4 Credits)**

Prerequisites: ELEN 231 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: MATH 335. Vector analysis. Electrostatics: electrostatic field, scalar potential, dielectrics, boundary-value problems. Magnetostatics: magnetic circuits. Maxwell's equations: Faraday's law, time-harmonic fields. Introduction to plane waves. (Formerly 4400:353)

**ELEN:354 Electromagnetics II (3 Credits)**

Prerequisites: ELEN 353 and admission to an engineering major within the College of Engineering and Polymer Science. Theory and application of transmission lines: transient and steady-state waves. Plane EM waves: propagation, reflection, and refraction. Waveguides open and closed-boundary guiding structures. (Formerly 4400:354)

**ELEN:360 Physical Electronics (3 Credits)**

Prerequisites: ELEN 332 and admission to an engineering major within the College of Engineering and Polymer Science. PN junction, diffusion, tunneling, FET and BJT device physics, equivalent circuits for electronic devices, time and frequency analysis, biasing and logic families. (Formerly 4400:360)

**ELEN:361 Electronic Design (4 Credits)**

Prerequisites: ELEN 340, ELEN 360 and admission to an engineering major within the College of Engineering and Polymer Science. Power amplification, feedback, oscillators, linear integrated circuits, modulation and demodulation circuits. (Formerly 4400:361)

**ELEN:371 Control Systems I (4 Credits)**

Prerequisites: ELEN 340 with a grade of C- or better and admission to an engineering major within the College of Engineering and Polymer Science. Introduction to servomechanisms and feedback. Modeling and response of feedback control systems. Stability of linear systems. Experiments include analog simulation and basic servomechanism. (Formerly 4400:371)

**ELEN:381 Energy Conversion (4 Credits)**

Prerequisites: ELEN 332 and admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisite: ELEN 353. Nonelectrical to electrical energy conversions and vice versa: thermal, chemical, solar. Fundamentals of electromechanical energy conversion. Principles of operation of transformers, commutator machines, induction and synchronous machines. (Formerly 4400:381)

**ELEN:401 Senior Design Project I - Electrical Engineering (3 Credits)**

Prerequisites: ELEN 309, senior standing, admission to an engineering major within the College of Engineering and Polymer Science, and ELEN 341, [ELEN 354 or ELEN 350], ELEN 361, ELEN 371, and ELEN 381 with a combined average grade of 2.0 or higher. Design and preparation phase of an engineering team project. System specification, design, and simulations; ordering of components; subsystem implementations. Requires project presentations and report. (Formerly 4400:401)

**Gen Ed:** - Capstone

**ELEN:402 Senior Design Project II - Electrical Engineering (3 Credits)**

Prerequisite: ELEN 401 and admission to an engineering major within the College of Engineering and Polymer Science. Implementation and evaluation phases of an engineering design project. Requires a project presentation and report. (Formerly 4400:402)

**Gen Ed:** - Complex Issues Facing Society

**ELEN:434 Active Circuits (3 Credits)**

Prerequisite: ELEN 340. Applications of operational amplifiers including bilinear transfer functions, scaling, cascade design, biquad circuits, lowpass, high pass, bandpass-filters, Butterworth and Chebyshev response, sensitivity, delay filters, frequency transformations, ladder design, simulated element design, leapfrog simulation and switched-capacitors. (Formerly 4400:434)

**ELEN:441 Digital Communication (3 Credits)**

Prerequisite: ELEN 341 or CPEN 440. Introduction to digital communications theory and systems. Sampling, formatting and baseband communications. Digital modulation techniques and optimal receivers. Error performance analysis. Error control. (Formerly 4400:441)

**ELEN:445 Wireless Communications (3 Credits)**

Prerequisite: ELEN 341 or CPEN 440. Theory and analysis of wireless communication systems, wireless propagation, multiple access, modulation, demodulation, multipath channel characterization, diversity, cellular and PCS services and standards. (Formerly 4400:445)

**ELEN:447 Random Signals (3 Credits)**

Prerequisite: ELEN 340. Applications of set theory, discrete and continuous sample spaces; probability, random variables, distribution functions, density functions, stochastic processes, random signals, system function, power spectrum and correlation functions. (Formerly 4400:447)

**ELEN:448 Optical Communication Networks (3 Credits)**

Prerequisites: ELEN 360. Optical waveguides and integrated components. Optical transmitters and receivers. Optical communications network design. (Formerly 4400:448)

**ELEN:451 Electromagnetic Compatibility (3 Credits)**

Prerequisite: ELEN 360. Introduction to electromagnetics, electromagnetic compatibility, crosstalk and effects on computers, communication lines and systems. (Formerly 4400:451)

**ELEN:453 Antenna Theory (3 Credits)**

Prerequisite: ELEN 354. Theory of EM radiation. Wire antennas, arrays, receiving antennas, reciprocity. Integral equations for induced currents, self and mutual impedances. Equivalence principle, radiation from aperture antennas. (Formerly 4400:453)

**ELEN:455 Microwaves (4 Credits)**

Prerequisite: ELEN 354. Dynamic fields, Maxwell's equation and wave equations. Field analysis of wave guides, microwave components, techniques and systems. (Formerly 4400:455)

**ELEN:461 Optical Electronics & Photonic Devices (3 Credits)**

Prerequisites: ELEN 360. Lightwave engineering, photonic principles and optical electronic device technology. (Formerly 4400:461)

**ELEN:469 Introduction to Sensors and Actuators (3 Credits)**

Prerequisite: Senior standing or permission. Introduction to the theory and practice of sensors and actuators; sensing and actuation technologies; performance, and interfacing. (Formerly 4400:469)

**ELEN:472 Control Systems II (4 Credits)**

Prerequisite: ELEN 371. Sampled-data control system analysis and design. Discrete-time representation of sampled-data systems. Cascade, feedforward and state-variable compensation techniques. Digital computer implementation. (Formerly 4400:472)

**ELEN:481 Modern Power Systems (3 Credits)**

Prerequisite: ELEN 381. Introduction to electricity utility load flow, faulty analysis, stability, surge protection and relaying. (Formerly 4400:481)

**ELEN:483 Power Electronics I (3 Credits)**

Prerequisite: ELEN 360. Steady-state analysis and design of power electronic converters: AC/DC converters (rectifiers), DC/DC converters, DC/AC PWM and resonant converters, AC/AC converters and cycloconverters. (Formerly 4400:483)

**ELEN:484 Power Electronics Laboratory & Design Project (2 Credits)**

Prerequisite: ELEN 483, ELEN 583 or equivalent. Experiments on different types of power electronic converters: AC/DC, DC/DC, DC/AC, and AC/AC. Design project to include design, simulation, building, and testing of a power electronic circuit. (Formerly 4400:484)

**ELEN:485 Electric Motor Drives (3 Credits)**

Prerequisite: ELEN 381. Application of electric machines, choice of motor for particular drive. Application of power semiconductor circuits in electric machinery. (Formerly 4400:485)

**ELEN:486 Dynamics of Electric Machines (3 Credits)**

See department for course description. (Formerly 4400:486)

**ELEN:487 Electromagnetic Design of Electric Machines (3 Credits)**

See department for course description. (Formerly 4400:487)

**ELEN:488 Control of Machines (4 Credits)**

See department for course description. (Formerly 4400:488)

**ELEN:489 Electric and Hybrid Vehicles (3 Credits)**

Prerequisite: ELEN 381. Basic principles of electric and hybrid vehicles. Characteristics of electric machines, internal combustion engines, transmissions, batteries, fuel cells, ultracapacitors. Vehicle control strategies, communication networks, and overall system integration. (Formerly 4400:489)

**ELEN:498 Special Topics: Electrical Engineering (1-3 Credits)**

(May be taken more than once) Prerequisite: Permission of department chair. Special topics in electrical engineering. (Formerly 4400:498)

## Emergency Management and Homeland Security (EMHS)

**EMHS:105 Introduction to Disaster, Hazards & Risk (3 Credits)**

Provides a research based and practitioner overview of how people perceive and react to extreme events before, during, and after disasters. (Formerly 2235:105)

**EMHS:201 Police Academy: Administration & Legal (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 202, EMHS 203, EMHS 204 and EMHS 205. Overview of the administration and legal issues of becoming an Ohio Peace Officer. (Formerly 2235:201)

**EMHS:202 Police Academy: Homeland Security (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 203, EMHS 204 and EMHS 205. Overview of human relations, civil disorders, investigation, and homeland security involved in becoming an Ohio Peace Officer. (Formerly 2235:202)

**EMHS:203 Police Academy: Traffic (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 202, EMHS 204 and EMHS 205. Overview of motor vehicle offenses, traffic crash investigation, speed measuring and sobriety testing required to pass the Ohio Peace Officer Training program. (Formerly 2235:203)

**EMHS:204 Police Academy: Practicals I (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 202, EMHS 203 and EMHS 205. Classroom and practical skills training in firearms, patrol, and driving to satisfy all state requirements for the Ohio Peace Officer Training Program. (Formerly 2235:204)

**EMHS:205 Police Academy: Practicals II (3 Credits)**

Prerequisite: Acceptance into the Police Academy. Corequisites: EMHS 201, EMHS 202, EMHS 203 and EMHS 204. Classroom and skills in defense tactics, physical fitness and First Aid/CPR/AED & WMD Awareness to satisfy requirements to become an Ohio Peace Officer. (Formerly 2235:205)

**EMHS:210 Occupational Safety & Risk (3 Credits)**

Introduction to the field of health and safety as related to business and industrial operations. Emphasis is placed on hazard/risk analysis and the regulatory environment. (Formerly 2235:210)

**EMHS:220 Environmental Law & Regulations (3 Credits)**

Introduction to the legal system and to the laws and regulations dealing with water, air, land, noise and other sources of pollution. (Formerly 2235:220)

**EMHS:221 Environmental Law & Regulations II (3 Credits)**

Prerequisite: EMHS 220 and permission. Designed to provide students the opportunity to apply common regulatory reporting mechanisms in a practical manner utilizing a variety of software programs recognized in the environmental field. (Formerly 2235:221)

**EMHS:230 Water & Atmospheric Pollution (3 Credits)**

Prerequisites: EMHS 105 and 3100:104. Basic concepts of aquatic and atmospheric systems and the processes which pollute them. Emphasis on control and monitoring of cultural, industrial, and agricultural pollution sources. Laboratory. (Formerly 2235:230)

**EMHS:232 Environmental Sampling Laboratory (2-3 Credits)**

Corequisite: EMHS 230. Field experience with a wide range of environmental sampling techniques and equipment. (Formerly 2235:232)

**EMHS:285 Disasters in Film and Media (3 Credits)**

Examines how contemporary culture perpetuates myths of natural and technological disasters. Students deconstruct and analyze reality from the myths in various types of media. (Formerly 2235:285)

**EMHS:305 Principals of Emergency Management and Homeland Security (3 Credits)**

An overview of emergency management and homeland security history, theory, terms, concepts, organization, and roles. Emphasizes natural and technological hazards, and risk assessment processes. (Formerly 2235:305)

**EMHS:340 Disaster Research Methods (3 Credits)**

Introduction to scientific method and processes, research ethics, and qualitative and quantitative methods. Use of research for appropriate decision making. (Formerly 2235:340)

**EMHS:350 Disaster Preparedness & Response (3 Credits)**

Prerequisite: EMHS 305. Legal requirement, planning formats, and response procedures are presented. Special focus community risk assessment: hazard analysis, vulnerability assessment, and community response capability assessment. (Formerly 2235:350)

**EMHS:360 Introduction to Terrorism (3 Credits)**

Corequisite: EMHS 305. Examines terrorism from historical, international, transnational, and domestic perspectives. Includes political and religious terrorism along with emergency management considerations. (Formerly 2235:360)

**EMHS:365 Disaster Mitigation (3 Credits)**

Prerequisite: EMHS 305. Examines disaster prevention and risk reduction. Focuses on such concepts as sustainability, resiliency, non-structural and structural mitigation and various sectors' responsibilities. (Formerly 2235:365)

**EMHS:367 Disaster Recovery (3 Credits)**

Prerequisite: EMHS 305. Provides foundations for disaster relief and recovery planning, stages of recovery, resources used, and formation of public/private partnerships for recovery action and resource allocation. (Formerly 2235:367)

**EMHS:368 Professionalism in Emergency Management and Homeland Security (3 Credits)**

Prepares students for career entry into Emergency Management and Homeland Security areas. Professionalism, resume building, interview techniques, and resource sites will be examined. (Formerly 2235:368)

**EMHS:370 Hazard Science and Management (3 Credits)**

Overview of hazards theory, the science of hazard development, and various hazard types. Emphasis on emergency management and homeland security perspectives in regard to various hazard management related topics. (Formerly 2235:370)

**EMHS:384 Intelligence: Cyber and Homeland Security (3 Credits)**

This course introduces students to the role and operation of the intelligence community within the homeland security framework: History, mission, structure, capabilities, and methods. (Formerly 2235:384)

**EMHS:401 Crisis Leadership (3 Credits)**

This course presents leadership research from an interdisciplinary perspective. Content is drawn the fields of business, training, simulation, organizational theory, government, and others. This course covers early leadership theory, horizontal theories, crisis training models and approaches, and crisis cognitive processing strategies. Students will examine the overall system of building better crisis leaders. (Formerly 2235:401)

**EMHS:406 Disaster Management Technology (3 Credits)**

Prerequisite: EMHS 305. Provides an overview of the various types of technology utilized in disasters, emergency management and homeland security. Topics include communications, watches, warnings, and operational challenges. (Formerly 2235:406)

**EMHS:407 Hazardous Weather Observations (3 Credits)**

Overview of meteorological variables and weather data useful to EM including meteorological instruments, forecasts, model, radar and satellite imagery, thunderstorms, tornadoes, winter storms and hurricanes. (Formerly 2235:407)

**EMHS:420 Disaster Vulnerability (3 Credits)**

Prerequisite: EMHS 305. Analysis of citizen actions regarding major disasters including perspectives of individuals and emergency managers using case studies, theories, and social problems. (Formerly 2235:420)

**EMHS:425 Private Sector Disaster Applications (3 Credits)**

Prerequisite: EMHS 305. Examines emergency management and homeland security business components in the private and public sectors. Emphasizes business continuity plans along with case studies in hazards and disasters. (Formerly 2235:425)

**EMHS:430 Contemporary Issues in Emergency Management and Homeland Security (3 Credits)**

Discussion of relevant issues impacting the field of emergency management and homeland security by analyzing various case studies. (Formerly 2235:430)

**EMHS:435 Cyber Issues in Emergency Management and Homeland Security (3 Credits)**

Prerequisite: EMHS 305. Discussion and analysis of cyber issues impacting the public, private, and nonprofit sectors of emergency management and homeland security. (Formerly 2235:435)

**EMHS:480 Emergency Management & Homeland Security Capstone (3 Credits)**

Prerequisite or Corequisite: EMHS 495. Ties together relevant concepts in emergency management and homeland security to help prepare graduates for professional careers integrating theory and applications. (Formerly 2235:480)

**EMHS:485 Cyber Forensics Capstone (4 Credits)**

Prerequisites: Senior standing in the Cyber Forensics program and placement by an advisor. This is the senior capstone course for the Cyber Forensics degree. This course is a culminating experience class in which issues in cyber forensics will be examined, applied, and analyzed into the broader application of societal contexts and issues. (Formerly 2235:485)  
**Gen Ed:** - Capstone

**EMHS:490 Current Topics in Emergency Management (1-4 Credits)**

Prerequisites: EMHS 305 and EMHS 350. A variety of course topics on current subjects related to emergency management and disaster preparedness. May be repeated for up to 12 credits. (Formerly 2235:490)

**EMHS:493 Cyber Forensics Internship (3 Credits)**

Prerequisites: Junior or greater standing in the Cyber Forensics program and placement by an advisor. This course provides the student with an experience in digital technology in the workplace. Each student is required to meet with an instructor to discuss and examine the workplace experience. (Formerly 2235:493)

**EMHS:495 Emergency Management & Homeland Security Internship (3 Credits)**

Prerequisite: 30 hours in program and permission from program director. Supervised work experience in emergency management and/or homeland security to increase student understanding by applying program education to an applied work experience. (Formerly 2235:495)

**EMHS:497 Independent Study in Emergency Management (1-4 Credits)**

Prerequisites: EMHS 305 and EMHS 350. Selected topics, special areas of study in emergency management, disaster preparedness under the supervision of a faculty member with whom specific arrangements have been made. (Formerly 2235:497)

## Emergency Medical Services (EMSP)

**EMSP:100 Introduction to EMT Training (3 Credits)**

Corequisites: EMSP 101 and EMSP 102. Overview of the EMS System, safety/well being of an EMT, medical/legal and ethical issues in providing emergency care. (Formerly 2240:100)

**EMSP:101 EMT-B Fundamentals (2 Credits)**

Corequisite: EMSP 100. Develop skills required of EMT-Basic for Assessment, air way management, patient evaluation for shock, trauma/ special needs patient, learn appropriate interventions for all situations. (Formerly 2240:101)

**EMSP:102 EMT-B Fundamentals II (2 Credits)**

Corequisites: EMSP 100 and EMSP 101. Provide students with the tools to start the EMT-Basic course and will prepare students to achieve national certification as an EMT-Basic. (Formerly 2240:102)

**EMSP:201 Fundamentals of EMT-Paramedic I (3 Credits)**

Corequisites: EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Introduction to emergency medical care-paramedic, the well-being of the EMT-paramedic, and illness and injury prevention. (Formerly 2240:201)

**EMSP:202 Fundamentals of EMT-Paramedic II (3 Credits)**

Corequisites: EMSP 201, EMSP 203, EMSP 204, and EMSP 205. Instruction in medical/legal issues, ethics, and the paramedic, and general principles of anatomy and physiology. (Formerly 2240:202)

**EMSP:203 Fundamentals of EMT-Paramedic III (3 Credits)**

Corequisites: EMSP 201, EMSP 202, EMSP 204, and EMSP 205. Instruction in medical math, pharmacology, venous access, and medication administration. (Formerly 2240:203)

**EMSP:204 Fundamentals of EMT-Paramedic IV (3 Credits)**

Corequisites: EMSP 201, EMSP 202, EMSP 203, and EMSP 205. Instruction includes therapeutic communications, life span development, and airway management/ventilation. (Formerly 2240:204)

**EMSP:205 Fundamentals of EMT-Paramedic V (3 Credits)**

Corequisites: EMSP 201, EMSP 202, EMSP 203, and EMSP 204. Skill Session Practices, competency Testing from skills learned throughout the semester. (Formerly 2240:205)

**EMSP:206 Fundamentals of EMT-Paramedic VI (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 207, EMSP 208, EMSP 209, and EMSP 211. Instruction is respiratory emergencies and cardiovascular emergencies. (Formerly 2240:206)

**EMSP:207 Fundamentals of EMT-Paramedic VII (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 208, EMSP 209, and EMSP 211. Instruction in cardiovascular emergencies, diabetic emergencies, and allergic reactions. (Formerly 2240:207)

**EMSP:208 Fundamentals of EMT-Paramedic VIII (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 207, EMSP 209, and EMSP 211. Instruction in paramedic skills, practical trauma, and medical skills practical. (Formerly 2240:208)

**EMSP:209 Fundamentals of EMT-Paramedic IX (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 207, EMSP 208, and EMSP 211. Medical skills practical and skills testing. (Formerly 2240:209)

**EMSP:211 Fundamentals of EMT-Paramedic X (3 Credits)**

Prerequisites: EMSP 201, EMSP 202, EMSP 203, EMSP 204, and EMSP 205. Corequisites: EMSP 206, EMSP 207, EMSP 208, and EMSP 209. Practical skills testing, client orientation, and written skills testing. (Formerly 2240:211)

## English (ENGL)

**ENGL:110 English Composition I + Workshop (4 Credits)**

Prerequisite: Placement. Extensive and varied experience in developing writing skills, with practice in expressive, reflective, and analytic forms of writing. Includes one credit, support-intensive workshop. (Formerly 3300:110)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing First Course

**ENGL:111 English Composition I (3 Credits)**

Extensive and varied experience in developing writing skills, with practice in expressive, reflective, and analytic forms of writing. (Formerly 3300:111)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing First Course

**ENGL:112 English Composition II (3 Credits)**

Prerequisite: ENGL 110 or ENGL 111 or ENGL 113. Designed to develop skills in analyzing and writing persuasive arguments. (Formerly 3300:112)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing Second Course

**ENGL:113 African American Language and Culture I: College Composition (3 Credits)**

Discussion, argumentation, and writing related to African American culture and language. An option to ENGL 111 English Composition I. Open to all students. (Formerly 3300:113)

**ENGL:114 African American Language and Culture II: College Composition (3 Credits)**

Prerequisites: ENGL 110 or ENGL 111 or ENGL 113. Composition and discussion topics focus on the structure, history, and culture of African American English. An option to ENGL 112 English Composition II. Open to all students. (Formerly 3300:114)

**ENGL:120 Writing and Editing (1 Credit)**

Examination of the editing process of writing. Focuses on developing a clear, effective, and correct professional writing style appropriate for academic and business documents. (Formerly 2020:120)

**ENGL:123 Writing for Presentations (1 Credit)**

A writing intensive course that focuses on the rhetorical and theoretical challenges and considerations of effective presentations. (Formerly 2020:123)

**ENGL:216 Collaborative Writing (1 Credit)**

Prerequisite: ENGL 111 or equivalent. A writing course that focuses on strategies and techniques for successful collaborative writing in the workplace. (Formerly 2020:216)

**ENGL:220 Writing and Research (1 Credit)**

Prerequisite: ENGL 111 or equivalent. Practical examination of writing effectively and professionally about primary and secondary research sources in the student's choice of several citation methods. (Formerly 2020:220)

**ENGL:222 Technical Report Writing (3 Credits)**

Prerequisite: ENGL 110 or ENGL 111 or equivalent. Prepares students to write the types of reports most often required of technicians, engineers, and scientists. Includes types of reports, memoranda, and letters; techniques of research, documentation and oral presentations. (Formerly 3300:222)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Writing Second Course

**ENGL:224 Writing for Advertising (3 Credits)**

Prerequisite: ENGL 111 or equivalent. Introduction to the copywriter's role in print, broadcast, and Web advertising. Study of advertising language; practice in writing advertisements and producing collateral copywriting materials. (Formerly 2020:224)

**ENGL:226 Electronic Reference Resources in the Computer Age (3 Credits)**

Prerequisite: ENGL 111. Designed for individuals to broaden their scope and understanding of various electronic research techniques. Study, evaluation, and use of current and emerging technologies will be examined. (Formerly 2020:226)

**ENGL:227 Writing for the World Wide Web (3 Credits)**

Prerequisite: ENGL 111 or equivalent, and familiarity with Internet (or attend Computer Center training seminar) knowledge of word processing software. Introductory course examines spoken and written contexts merging into one "writing space"; provides writing theory and practice for effective e-mail, newsgroup, chat, and web site writing. (Formerly 2020:227)

**ENGL:250 Classic & Contemporary Literature (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, and HIST 210 or HIST 221, or permission of the instructor. Close reading and analysis of fiction, poetry, and drama from the evolving canon of American, British, and World literature. This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English. (Formerly 3300:250)

**ENGL:252 Shakespeare & His World (3 Credits)**

Prerequisite: ENGL 112 or equivalent. An introduction to the works of Shakespeare and their intellectual and social contexts. Each section "places" Shakespeare through compact readings of works by the playwright's contemporaries. This course fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English. (Formerly 3300:252)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**ENGL:275 Specialized Writing (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. (May be repeated for different topics, with permission) Principles and practice of style, structure and purpose in writing, with special applications to writing demands of a specific career area. (Formerly 3300:275)

**ENGL:276 Introduction to Creative Nonfiction Writing (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112. This course introduces the techniques of Creative Nonfiction through writing exercises that give experience with the form. (Formerly 3300:276)

**ENGL:277 Introduction to Poetry Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112. Practice in writing poems. Study of techniques in poetry, using contemporary poems as models. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing. (Formerly 3300:277)

**ENGL:278 Introduction to Fiction Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112. Practice in writing short stories. Study of various techniques in fiction, using contemporary stories as models. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing. (Formerly 3300:278)

**ENGL:279 Introduction to Script Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112. Practice in writing scripts. Study of various techniques in script writing, using contemporary models for study. Class discussion of student work. Individual conferences with instructor to direct student's reading and writing. (Formerly 3300:279)

**ENGL:280 Poetry Appreciation (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Close reading of a wide selection of British and American poems with emphasis on dramatic situation, description, tone, analogical language, theme and meaning. (Formerly 3300:280)

**ENGL:281 Fiction Appreciation (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents. Close reading of modern masters of short story and novel. Fulfills the General Education Humanities Requirement. It cannot be used to meet requirements in English. (Formerly 3300:281)

**Gen Ed:** - Humanities

**ENGL:283 Film Appreciation (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course. Introduction to dramatic choices made by filmmakers in scripting, directing, editing and photographing narrative films; and qualities of reliable film reviews. (Formerly 3300:283)

**Gen Ed:** - Arts

**ENGL:290 Special Topics: Associate Studies (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: permission. Selected topics on subject areas of interest in associate studies. (Formerly 2020:290)

**ENGL:300 Critical Reading & Writing (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. An introduction to English studies, focusing on critical methods for reading and writing about literature, with attention to research skills and uses of computer technology. (Formerly 3300:300)

**ENGL:301 English Literature I (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Studies in English literature from Old English to 1800, with emphasis upon specific representative works and upon the cultural and intellectual background which produced them. Literature to be read will include both major and minor poetry, prose and drama. (Formerly 3300:301)

**ENGL:315 Shakespeare: The Early Plays (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Introduction to early drama of Shakespeare with close reading of tragedies, histories and comedies. Includes explanatory lectures of both the plays and their backgrounds. (Formerly 3300:315)

**ENGL:316 Shakespeare: The Mature Plays (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Study of Shakespeare's plays after 1598, beginning with mature comedies. Concentration on major tragedies and romances. (Formerly 3300:316)

**ENGL:325 Signs of Professional Writing (1 Credit)**

Prerequisite: ENGL 111 or equivalent. Practical examination of concrete and abstract indicators that lead readers to judge the professional quality of a written text beyond its meaning and correctness. (Formerly 2020:325)

**ENGL:341 American Literature I (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor. Historical survey of major and minor American writers to 1865. (Formerly 3300:341)

**ENGL:350 Black American Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, or permission of the instructor. Survey of representative black American writers from the 19th Century to present, with particular attention to historical and social backgrounds. (Formerly 3300:350)

**Gen Ed:** - Domestic Diversity

**ENGL:360 Old Testament As Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. History of Hebrews to 586 B.C., as revealed through epic, fiction, saga and poetry, viewed against background of the Asian World. (Formerly 3300:360)

**ENGL:361 The New Testament and Apocrypha as Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. These two bodies of literature read with emphasis on form of gospel and epistle, and concept of apocalypse. Both are viewed against their historical and social backgrounds. (Formerly 3300:361)

**ENGL:362 World Literatures (3 Credits)**

The course is a study of short fiction, poems, plays, and novels of the non-Western world from early antiquity to the present. (Formerly 3300:362)

**Gen Ed:** - Global Diversity

**ENGL:364 Women Writers (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or permission of instructor. A study of the diverse voices of female experiences through literature written by women. (Formerly 3300:364)

**ENGL:366 European Background of English Literature (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. Representative continental texts from Homer to Cervantes, selected both for their excellence and for their important influence on English and American literature. (Formerly 3300:366)

**ENGL:367 The Rhetoric of God (3 Credits)**

Addresses the nature of language and the purpose of rhetoric as applied to the possibility/impossibility of transcendence. Fulfills General Education Global Diversity requirement. (Formerly 3300:367)

**Gen Ed:** - Global Diversity

**ENGL:371 Introduction to Linguistics (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level English course or permission. Scientific introduction to the study of written and spoken linguistic behavior in English. History of English, varieties of English, and acquisition of English also introduced. (Formerly 3300:371)

**ENGL:376 Legal Writing (3 Credits)**

Prerequisite: Completion of ENGL 112 or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level course. Intensive practice in writing for prelaw students through assignments based on actual legal situations and real cases. Particular attention to stating legal issues, writing persuasively, applying rules of law, and other topics that will help those preparing for law school and the profession. (Formerly 3300:376)

**ENGL:377 Advanced Poetry Writing (3 Credits)**

Prerequisites: ENGL 277, ENGL 111 and ENGL 112. Advanced practice in writing poems, emphasis on shaping publishable works. Survey of market. Class discussion of student poems; individual conference with instructor. (Formerly 3300:377)

**ENGL:378 Advanced Fiction Writing (3 Credits)**

Prerequisites: ENGL 278, ENGL 111 and ENGL 112. Advanced practice in writing short stories, emphasis on shaping publishable works. Survey of market. Class discussion of student stories; individual conference with instructor. (Formerly 3300:378)

**ENGL:379 Advanced Script Writing (3 Credits)**

Prerequisites: ENGL 112 and ENGL 279. This course focuses on writing for the screen and developing the visual imagination. (Formerly 3300:379)

**ENGL:380 Film Criticism (3 Credits)**

Prerequisite: ENGL 112 or any 200-, 300- or 400-level English course. Application of literary critical theory to the study of film. (Formerly 3300:380)

**ENGL:381 Advanced Creative Nonfiction Writing (3 Credits)**

Prerequisite: ENGL 276. This course advances student practice in the craft of Creative Nonfiction through writing exercises and workshop sessions. (Formerly 3300:381)

**ENGL:389 Special Topics: Literature & Language (3 Credits)**

Prerequisite: Completion of ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course. (May be repeated for credit as different topics are offered). Traditional and nontraditional topics in English literature and language, supplementing course listed in this General Bulletin, generally constructed around theme, genre and language study. (Formerly 3300:389)



**ENGL:390 Professional Writing I (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level English course, or permission of the instructor. Designed to help prepare student for a career as professional business writer. Stresses theory and practice of written and oral communication in business organization. Individual and group performance, relating to communication theories, concepts of semantics. Functional writing as well as special needs of business are illustrated by actual cases. Adapting style and organization is practiced. (Formerly 3300:390)

**ENGL:391 Professional Writing II (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level English course, or permission of the instructor. Designed to help prepare student for a career as professional technical writer. Covers principles and practices concerning editing company technical communications, such as specifications, annual reports, promotional brochures for technical products, services, scientific abstracts, proposals. Also treats problems of adapting materials to formats, graphic display of technical information, adaptation of technical material to nontechnical reader. (Formerly 3300:391)

**ENGL:392 Internship in English (1-3 Credits)**

Prerequisite: Minimum GPA of 2.5, permission of the instructor. (May be repeated for a maximum of six credits.) Critical reading and writing focused on career applications of the discipline of English. May count up to three credit hours toward the English major. (Formerly 3300:392)

**ENGL:399 The Gothic Imagination (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course. A loosely chronological study of major British, American, and European authors in the Gothic tradition. Focus on the literary conventions of Gothic fiction, to the "popular" nature of the literature and to its major themes/motifs. (Formerly 3300:399)

**ENGL:400 Anglo Saxon (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level English course, Junior or greater standing, or permission of the instructor. Studies in Old English language and Old English prose and poetry, including Beowulf. (Formerly 3300:400)

**ENGL:403 Development of the Arthurian Legend (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Traces evolution of Arthurian materials from 540 to 1500 and beyond, with emphasis on characters, themes, events and treatments. (Formerly 3300:403)

**ENGL:406 Chaucer (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Close study of Chaucer's major works The Canterbury Tales and Troilus and Criseyde in Middle English. (Formerly 3300:406)

**ENGL:407 Middle English Literature (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112, 64 credits or permission. Study of genres, topics, styles and writers of the Middle English literary works from 12th to 15th Centuries. Readings in Middle English. (Formerly 3300:407)

**ENGL:424 Early English Fiction (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112, 64 credits or permission. Development of English novel before 1830. Focus on works of Defoe, Richardson, Fielding, Smollett, Sterne, Austen and Scott. (Formerly 3300:424)

**ENGL:425 Studies in Romanticism (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Literary, philosophical, psychological and social revolutions of romantic period as reflected in works of such major writers as Wordsworth, Byron and Keats. (Formerly 3300:425)

**ENGL:430 Victorian Poetry & Prose (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Poetry, prose of the late 19th Century, excluding fiction, with attention to Tennyson, Browning, Arnold, Carlyle, Ruskin and other major writers. (Formerly 3300:430)

**ENGL:431 Victorian Fiction (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Reading of at least five major novels of Victorian era, of varying length, by Emily Bronte, Dickens, Eliot, Thackeray and Hardy. Characterization, theme and attitude toward life emphasized. (Formerly 3300:431)

**ENGL:435 20th Century British Poetry (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Concentrated study of major poems of Yeats, Eliot and Auden, with attention also to Hardy, Housman, Spender, C. Day Lewis, Dylan Thomas and others. (Formerly 3300:435)

**ENGL:436 British Fiction: 1900-1925 (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of Conrad, Joyce, D. H. Lawrence and Virginia Woolf, with attention to their innovations in narrative and style, their psychological realism and symbolism. Brief consideration of other important fiction writers of the period, including Wells, Bennett and Mansfield. (Formerly 3300:436)

**ENGL:437 British Fiction Since 1925 (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of important British novelists since 1925, excluding Lawrence, Joyce and Woolf. Attention to development of British short story from 1925 to present. (Formerly 3300:437)

**ENGL:440 Women and Film (3 Credits)**

Prerequisites: [ENGL 111 and ENGL 112] or any 200-, 300- or 400-level English course and Junior or greater standing. This course explores representations of the feminine and treatments of gender issues in mainstream Hollywood films within a critical framework of feminist film theory. (Formerly 3300:440)

**ENGL:448 American Romantic Fiction (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Examination of early American fiction, tracing its genesis, romantic period and germinal movements toward realism. Writers discussed include Cooper, Poe, Hawthorne and Melville. (Formerly 3300:448)

**ENGL:449 American Fiction: Realism & Naturalism (3 Credits)**

Prerequisite: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. Examination of American writers of realistic and naturalistic fiction (e.g., Howells, James, Crane, Dreiser), tracing developments in American fiction against background of cultural and historical change. (Formerly 3300:449)

**ENGL:450 Modern American Fiction (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of significant American short and long fiction from World War I to the present. (Formerly 3300:450)

**ENGL:451 American Poetry to 1900 (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of the instructor. Survey of American poetry of the 17th, 18th and 19th Centuries. (Formerly 3300:451)

**ENGL:452 Modern American Poetry (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission, and junior or greater standing. Survey of 20th Century American poetry beginning with Edwin Arlington Robinson and ending with contemporary poets. (Formerly 3300:452)

**ENGL:453 American Women Poets (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Study of modern poets' uses and revisions of tradition, women's relationships, conceptions of art and of the artist-as-woman, and the debate between "public" and "private" poetry. (Formerly 3300:453)

**ENGL:454 20th Century American Drama (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. Examination of major, established playwrights (including O'Neill, Miller and Williams) and sampling of new and rising ones. (Formerly 3300:454)

**ENGL:455 The American Short Story (3 Credits)**

Prerequisite: ENGL 112 or equivalent, or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. A study of the development of the short story as a particularly American genre, from Washington Irving to the present. (Formerly 3300:455)

**ENGL:456 Thoreau, Emerson, and Their Circle (3 Credits)**

Prerequisite: Junior or greater standing or permission. A study of work and life of Henry David Thoreau, Ralph Waldo Emerson, and other key figures of the American Renaissance. (Formerly 3300:456)

**ENGL:457 Writers on Writing (3 Credits)**

Prerequisite: ENGL 111 and ENGL 112 and Junior standing. A close look at what established writers have to say about the process of writing. Students write response essays and take exams on readings. (Formerly 3300:457)

**ENGL:460 Film and Literature (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of instructor. Analysis of literary texts and their film adaptations. Emphasis on genre, structure, and visual elements as counterparts to written texts. (Formerly 3300:460)

**ENGL:466 Linguistics and Language Arts (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, and a minimum of Junior standing or higher, or permission of the instructor. Foundation course in linguistics with pedagogical implications for second language learners. Fundamental topics (morphology, syntax, semantics, phonetics, pragmatics) and related topics (sociolinguistics, contrastive analysis) covered. (Formerly 3300:466)

**ENGL:467 Modern European Fiction (3 Credits)**

Prerequisites: ENGL 112 or equivalent, or any 200- or 300- or 400-level English course, Junior or greater standing, or permission. Representative European writers from about 1850 to present, in translation. Focus on fiction of such writers as Dostoyevsky, Gide, Camus, Mann, Kafka and Kundera. (Formerly 3300:467)

**ENGL:468 International Poetry (3 Credits)**

Prerequisite: ENGL 112 or equivalent, 64 credits or permission of instructor. Junior standing. This survey of world poetry focuses on the stylistic concerns and social consequences of literature from Latin America, Africa, Asia, Europe, and beyond. (Formerly 3300:468)

**ENGL:469 Eros & Love in Early Western Literature (3 Credits)**

Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission of the instructor. An analysis of the use of sex and love in the literature of the Western World from Greco-Roman times to 1800, with special emphasis on how sexuality and "romantic" love are used as allegorical, satiric, fantastic or realistic devices. (Formerly 3300:469)

**ENGL:470 History of English Language (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level English course, and a minimum of Junior standing or higher, or permission of the instructor. Development of English language, from its beginnings: sources of its vocabulary, its sounds, its rules; semantic change; political and social influences on changes; dialect origins; correctness. (Formerly 3300:470)

**ENGL:471 U.S. Dialects: Black & White (3 Credits)**

Prerequisites: ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course or equivalent, Junior or greater standing, or permission of the instructor. Study of differences in pronunciation, vocabulary and grammar among U.S. language varieties. Origins, regional and social dimensions are explored. Correctness, focusing on black English and Appalachian speech, explored. (Formerly 3300:471)

**ENGL:472 Syntax (3 Credits)**

Prerequisite: [ENGL 371 and ENGL 112] or any [ENGL 200-, or ENGL 300-, or ENGL 400-] level English course or their equivalents, minimum of Junior standing or higher, or permission of the instructor. Principles of syntactic description. Sentence structures are investigated from a variety of languages, with emphasis on English. (Formerly 3300:472)

**ENGL:473 Theoretical Foundations and Principles of ESL (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course and a minimum of Junior standing or higher, or permission. Second language acquisition theories and teaching methodologies surveyed. Second language teaching principles from research in linguistics, psycholinguistics, and second language pedagogy explored. (Formerly 3300:473)

**ENGL:474 African American English (3 Credits)**

Prerequisite: 64 credits or permission. Junior standing. African American English grammatical structure, pronunciations, origins, and cultural role. Comparisons with academic English. Discussion of language correctness, legal status, and role in education. (Formerly 3300:474)

**ENGL:475 Theory of Rhetoric (3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of the instructor. Ancient and modern theories of rhetoric, with attention to classical oration, "topics" of rhetoric and their application to teaching of English. (Formerly 3300:475)

**ENGL:477 Sociolinguistics (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, or permission of the instructor. Major sociolinguistic concepts and methodology examined, as well as relationships between language, socio-cultural factors, and education. Issues of Standard English, power, and gender also examined. (Formerly 3300:477)

**ENGL:478 Grammatical Structures of Modern English (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, and a minimum of Junior standing or higher, or permission of the instructor. Contemporary understanding of Modern English sentence structure: parts of speech, sentence types, phrase types, modification, coordination and subordination, parentheticals. Traditional grammar and sentence rhetoric discussed. (Formerly 3300:478)

**ENGL:479 Management Reports (3 Credits)**

Prerequisites: ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course or equivalent, and a minimum of Junior standing or higher, or permission. Study of principles and writing practice in effective business style, specialized structure, and purpose for business reports. (Formerly 3300:479)

**ENGL:482 Senior Honors Project in English (1-3 Credits)**

(May be repeated for a total of six credits). Prerequisites: Completion of ENGL 111 and ENGL 112 or their equivalents, or permission of the instructor, senior standing in Honors College and approval of honors preceptor; open only to English majors enrolled in Honors College. Independent study leading to completion of senior honors thesis or other original work. (Formerly 3300:482)

**ENGL:484 Fantasy (3 Credits)**

Prerequisites: [ENGL 111 and ENGL 112] or any or any 200-, 300- or 400-level English course, 64 credits or permission. Junior standing. A study of forms of literature, primarily fiction, based on and controlled by an overt violation of what is generally considered as possibility. (Formerly 3300:484)

**ENGL:485 Science Fiction (3 Credits)**

Prerequisite: 64 credits or permission. Junior standing. A study of twentieth-century British and American science fiction, featuring primary forms of the science fiction story and the work of major authors. (Formerly 3300:485)

**ENGL:486 Learner English (3 Credits)**

Prerequisite: Completion of ENGL 112 or equivalent, or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course, or permission of the instructor. Introduction to tools for and practice in analyzing second language learners' production of English. Theory and practice of teaching oral and written English also covered. (Formerly 3300:486)

**ENGL:487 Field Experience: Teaching Second Language Learners (3 Credits)**

Prerequisite: Permission of instructor. Practical experience in which second language teachers-in-training observe, participate in, and practice teaching under the supervision of the instructor and/or an experienced, certified teacher. (Formerly 3300:487)

**ENGL:489 Seminar in English (2-3 Credits)**

Prerequisite: ENGL 112 or any [ENGL 200-, or ENGL 300- or, ENGL 400-] level course or equivalent, and a minimum of Junior standing or higher, or permission. (May be repeated with different topics.) Special studies, and methods of literary research, in selected areas of English and American literature and language. (Formerly 3300:489)

**ENGL:490 Workshop in English (1-3 Credits)**

Prerequisites: ENGL 111 and ENGL 112 or their equivalents, 64 credits, or permission of the instructor. (May be repeated with different topics) Group studies of special topics in English. Cannot be used to meet undergraduate or graduate major requirements in English; for elective credit only. (Formerly 3300:490)

**ENGL:492 Senior Seminar (3 Credits)**

Discussion of select literary topic and reflection on student development in the major. Requires independent research and reflection papers. Limited to senior English majors. (Formerly 3300:492)

**ENGL:498 Independent Study in English (1-3 Credits)**

Prerequisite: completion of ENGL 111 and ENGL 112 or their equivalents, 64 credits or permission. Directed study in a special field of interest chosen by student in consultation with instructor. (Formerly 3300:498)

## English Language Institute (ELI)

**ELI:31 ELI Written Expression (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language writing skills, designed to help students develop effective strategies for expressing ideas clearly and correctly in writing. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 31)

**ELI:32 ELI Reading Comprehension (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language reading skills, designed to help students develop efficient reading strategies and build vocabulary. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 32)

**ELI:33 ELI Grammar and Oral Communication (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language grammar with an emphasis on oral skills, designed to help students speak fluently and correctly. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 33)

**ELI:34 ELI Listening Comprehension (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language listening skills, designed to help students develop strategies to understand spoken English and take academic lecture notes. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 34)

**ELI:41 ESL Writing: Developing Writing Proficiency (0 Credits)**

Prerequisite: Permission of instructor. Provides intensive instruction in English as a second language writing. Students develop effective composing strategies while learning to write for a variety of academic purposes. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 41)

**ELI:42 ESL Reading: Developing Reading Proficiency (0 Credits)**

Prerequisite: Permission of instructor. Provides intensive instruction in English as a second language reading. Students acquire effective reading and vocabulary development strategies for a range of academic purposes. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 42)

**ELI:43 ESL Grammar: Developing Oral Proficiency (0 Credits)**

Prerequisite: Permission of instructor. Provides intensive instruction in English as a second language grammar for speaking purposes. Students review grammar basics and expand their knowledge and usage of patterns. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 43)

**ELI:44 ESL Listening: Developing Aural Proficiency (0 Credits)**

Prerequisite: Permission of instructor. Provides intensive instruction in English as a second language listening for academic purposes. Students acquire effective listening strategies for a range of contexts. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 44)

**ELI:45 ESL Speaking: Developing Speaking Proficiency (0 Credits)**

Prerequisite: Permission of instructor. Provides intensive instruction in English as a second language speaking for academic purposes. Students acquire effective speaking strategies for a range of contexts. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 45)

**ELI:51 ESL Writing and Study Skills (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language writing and study skills. Students learn and extensively practice techniques for writing, revising, and editing academic texts. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 51)

**ELI:52 ESL Reading and Study Skills (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language reading and study skills. Students learn and extensively practice techniques for comprehending a variety of academic texts. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 52)

**ELI:53 ESL Grammar and Speaking Skills (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language grammar. Students learn and extensively practice a range of grammatical forms and functions in spoken contexts. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 53)

**ELI:54 ESL Listening and Study Skills (0 Credits)**

Prerequisite: Permission of instructor. Intensive course in English as a second language listening and study skills. Students learn and practice techniques for comprehending spoken English in an academic setting. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 54)

**ELI:96 ELI Workshop (0 Credits)**

Prerequisite: Permission of instructor. Provides instruction in English language and related topics for speakers of languages other than English. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 96)

**ELI:99 ELI Independent Study (0 Credits)**

Prerequisite: Permission of instructor. Independent study in English as a Second Language under the supervision and evaluation of selected faculty member. May be repeated an unlimited number of times as course is noncredit. (Formerly 3030: 99)

## Entrepreneurship (ENTRE)

**ENTRE:201 Introduction to Entrepreneurship (3 Credits)**

Students are exposed to different skills, mindsets, attitudes, and processes valuable for entrepreneurs and startups. This includes opportunity identification, innovative problem solving, design thinking, and the role of entrepreneurial habits and creativity. Open to all university students. (Formerly 6300:201)

**ENTRE:301 New Venture Creation (3 Credits)**

Prerequisite: ENTRE 201 or by permission of instructor. Students work on the development of a business plan based on their chosen career path in the field of entrepreneurship (starting or buying a small business, working for a fast growth business or corporation, new product, family business, or franchising). Open to all university students. (Formerly 6300:301)

**ENTRE:360 Entrepreneurial Field Project (3 Credits)**

Prerequisites: ENTRE 201 or permission of the instructor. A practical field experience where students work in a consulting role on an actual entrepreneurial project involving a small business development center, a small business incubator, or an existing small business. (Formerly 6300:360)

**ENTRE:410 Selected Topics in Entrepreneurship (1-3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, upper-college or graduate standing, and [MGMT 301 or HRM 600] or equivalent. Facilitates comparative international study of entrepreneurship, introduction of entrepreneurship to large organizations, or application of student's entrepreneurial skills. Six hour limit. (Formerly 6500:410)

**ENTRE:450 Business Plan Development (3 Credits)**

Prerequisite: ENTRE 301. Students will work independently, with mentoring from the instructor, on an entrepreneurial project. Students will gain hands-on experience in developing a business plan for starting, acquiring, or expanding a business. (Formerly 6300:450)

## Exercise Science/Exercise Physiology (EXER)

**EXER:110 Introduction to Athletic Training (1 Credit)**

Provides an overview of the Sports Medicine team and the components of a comprehensive athletic healthcare program. Introduces the student to the profession of athletic training. (Formerly 5550:110)

**EXER:125 Introduction to Exercise Science (1 Credit)**

Overview for becoming a fitness professional. Information concerning choosing a career, national certification and professional organizations will be provided. (Formerly 5550:125)

**EXER:150 Concepts in Health & Fitness (3 Credits)**

Introduction to basic health and fitness concepts and related topics. Attention will be given to individual fitness programs emphasizing such topics as aerobic and anaerobic exercises, nutrition, diet, stress, and assessment methods and procedures. (Formerly 5550:150)

**EXER:201 Kinesiology (3 Credits)**

Prerequisites: BIOL 200, [BIOL 201 or BIOL 202], BIOL 203. Application of basic principles of anatomy and mechanics to human movement. Three hours lecture with practical application and demonstrations. (Formerly 5550:201)

**EXER:220 Health Promotion and Behavior Change (3 Credits)**

Prerequisite: EXER 150. Course will translate theories of behavioral science for health professionals who are involved in planning, developing, implementing or evaluating physical activity programs. (Formerly 5550:220)

**EXER:240 Care & Prevention of Athletic Injuries (3 Credits)**

Prerequisites: BIOL 200, BIOL 201. Corequisite: BIOL 202, BIOL 203. This course is an introduction to basic athletic training principles and techniques. Includes a laboratory course for practical application of techniques. (Formerly 5550:240)

**EXER:241 Care and Prevention of Athletic Injuries Lab (1 Credit)**

Prerequisites: BIOL 200 and BIOL 201. Corequisites: BIOL 202 and BIOL 203, EXER 240. This course is designed to allow students to learn, practice, and become competent and proficient in the psychomotor skills associated basic injury prevention, evaluation, management, and treatment of physically active individuals in the practice of athletic training as defined by the NATA. (Formerly 5550:241)

**EXER:242 Therapeutic Modalities (3 Credits)**

Prerequisites: Accepted into the ATEP Clinical Education Program.  
Corequisite: EXER 243. This course will promote student medical and technical aspects of therapeutic modalities and pharmacological agents in the treatment and rehabilitation of injured physically active individuals. (Formerly 5550:242)

**EXER:243 Athletic Training Lab I (1 Credit)**

Prerequisites: Accepted into the ATEP Clinical Education Program.  
Corequisites: EXER 242. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:243)

**EXER:250 Principles of Athletic Training (3 Credits)**

Prerequisites: Students must be accepted into the Clinical Athletic Training Education Program (ATEP). This course will address principles and techniques used in initial evaluation of musculoskeletal injury as defined by CAATE standards and guidelines. (Formerly 5550:250)

**EXER:255 Emergency Care for Athletic Training (3 Credits)**

Prerequisite: Accepted into ATEP Clinical Education program. This course will teach knowledge and skills in handling emergency situations or life-threatening sudden illness or injuries which an athletic training may encounter. (Formerly 5550:255)

**EXER:275 Advanced Athletic Injury Management: Lower Extremity (3 Credits)**

Prerequisites: EXER 242 and EXER 243. Corequisite: EXER 276. This course is designed to meet CAATE standards and guidelines to display knowledge and psychomotor skills in injury evaluation and recognition lower extremity. (Formerly 5550:275)

**EXER:276 Athletic Training Lab II (1 Credit)**

Prerequisites: EXER 242 and EXER 243. Corequisite: EXER 275. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:276)

**EXER:300 Physiology of Exercise for the Older Adult (3 Credits)**

Prerequisite: EXER 302. Analysis of physiological effects of exercise on the elderly. Exercise programs adaptable for use by persons working with elderly. Three hours lecture. (Formerly 5550:300)

**EXER:302 Physiology of Exercise (3 Credits)**

Prerequisites: BIOL 200 and BIOL 202. A course designed to study the physiological effects of exercise relative to physical education activities, athletics and athletic training. Two hours lecture, two hours laboratory. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:302)

**EXER:305 Clinical Experience I (2 Credits)**

Prerequisite: Permission. Improves the student's psychomotor skills in the following domains of athletic training: injury prevention, injury recognition/evaluation and management, therapeutic exercise and rehabilitation. (Formerly 5550:305)

**EXER:327 Exercise Leadership (3 Credits)**

Prerequisite: EXER 302. Students learn principles of teaching safe and effective exercises designed to enhance physical fitness. Course will assist students in preparing for a group exercise certification. (Formerly 5550:327)

**EXER:330 Exercise and Weight Control (3 Credits)**

Prerequisite: EXER 302. Course will focus on role of exercise in regard to its positive influences on weight control. The hazards and implications of being overweight are studied. (Formerly 5550:330)

**EXER:332 Therapeutic Exercise & Rehabilitation I Principles (3 Credits)**

Prerequisites: EXER 342 and EXER 343. Corequisite: EXER 333. This course will address CAATE standards and guidelines for competencies and proficiencies using principles in exercise and rehabilitation techniques. (Formerly 5550:332)

**EXER:333 Athletic Training Lab IV (1 Credit)**

Prerequisites: EXER 342 and EXER 343. Corequisite: EXER 332. This course will allow students to learn psychomotor skills associated with therapeutic exercise & rehabilitation techniques. Includes a 250 hour clinical sport rotation. (Formerly 5550:333)

**EXER:342 Advanced Athletic Injury Management: Upper Extremity (3 Credits)**

Prerequisites: EXER 275 and EXER 276. Corequisite: EXER 343. This course designed to meet CAATE standards and guidelines to display knowledge and psychomotor skills in injury evaluation and recognition of the upper extremity. (Formerly 5550:342)

**EXER:343 Athletic Training Lab III (1 Credit)**

Prerequisites: EXER 275 and EXER 276. Corequisite: EXER 342. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:343)

**EXER:352 Strength & Conditioning Fundamentals (3 Credits)**

Prerequisite: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will address CAAHEP competencies and proficiencies in the area of strength and conditioning of physically active individuals. (Formerly 5550:352)

**EXER:355 Exercise in Special Populations (3 Credits)**

Prerequisites: EXER 302 and EXER 403. Advanced course in clinical exercise testing and prescription relative to disease of the cardiovascular, pulmonary, metabolic, musculoskeletal, neuromuscular, and immunologic systems. (Formerly 5550:355)

**EXER:360 Practicum I (1 Credit)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This is a senior level athletic training course focusing on the refinement of practical skills and preparation for the NATABOC certification examination. (Formerly 5550:360)

**EXER:400 Musculoskeletal Anatomy I: Upper Extremity (3 Credits)**

Prerequisites: BIOL 200 and BIOL 202. This course includes lecture/laboratory activities to provide the student a comprehensive learning experience in lower extremity musculoskeletal anatomy. (Formerly 5550:400)

**EXER:401 Musculoskeletal Anatomy II: Lower Extremity (3 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, BIOL 203 and EXER 201. This course includes lecture laboratory activities to provide the student a comprehensive learning experience in lower extremity musculoskeletal anatomy. (Formerly 5550:401)

**EXER:403 Exercise Testing (3 Credits)**

Prerequisite: EXER 302. This course will cover basic knowledge of exercise testing and interpretation of results. Cardiovascular and muscular fitness aspects will be measured. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:403)

**EXER:404 Exercise Prescription (3 Credits)**

Prerequisite: EXER 403. This course focuses on how to appropriately prescribe exercise for various populations (young, middle-aged, elderly, pregnant, diseased-states). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:404)

**EXER:405 Clinical Experience I (2 Credits)**

Prerequisite: Accepted into ATEP Clinical education program. Enroll by advisor permission only. This course will allow for athletic training students to master CAATE proficiencies and clinical proficiencies associated with the course. (Formerly 5550:405)

**EXER:406 Advanced Strength and Conditioning (3 Credits)**

Prerequisite: EXER 352. Strength and conditioning programs for heterogeneous populations. The course covers high-level sport specific exercise prescriptions that aids injury prevention and performance enhancement. (Formerly 5550:406)

**EXER:412 General Medical Aspects (3 Credits)**

Prerequisites: BIOL 200 and BIOL 201. Covers various topics related to sports medicine and general medical conditions. Students will gain perspectives and exposure to a variety of allied health care professionals. (Formerly 5550:412)

**EXER:415 Seminar in Athletic Training (2 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. To meet CAAHEP standards and guidelines and incorporate an even distribution of competencies and proficiencies throughout all athletic training for sports medicine courses. (Formerly 5550:415)

**EXER:418 Cardiorespiratory Function (3 Credits)**

Prerequisite: EXER 302. This course is designed to study the normal structure and function of the respiratory system and how it is affected by different types of disease. (Formerly 5550:418)

**EXER:426 Nutrition for Sports (3 Credits)**

This course will provide an explanation of the consumption, absorption, and recommendation for diet of athletes and the physically active individual. (Formerly 5550:426)

**EXER:430 Senior Honors Project:Physical Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program. Carefully defined individual study demonstrating originality and sustained inquiry. \*Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:430)

**EXER:438 Cardiac Rehab Principles (3 Credits)**

Prerequisite: EXER 302. This course will teach students the core competencies for cardiac rehab professionals, based upon the American Association of Cardiovascular and Pulmonary Rehabilitation Specialists (AAVCPR). (Formerly 5550:438)

**EXER:440 Injury Management for Teachers & Coaches (2 Credits)**

Prerequisites: PHED 211. This course challenges the student to understand ways to provide and care for the safety of individual they teach or coach. (Formerly 5550:440)

**EXER:444 Athletic Training Lab V (1 Credit)**

Prerequisites: EXER 332 and EXER 333. Corequisite: EXER 445. This course will meet CAATE standards and allow the students to learn and practice psychomotor skills and clinical proficiencies. Includes clinical rotation. (Formerly 5550:444)

**EXER:445 Therapeutic Exercise & Rehabilitation II Applications (3 Credits)**

Prerequisites: EXER 332 and EXER 333. Corequisite: EXER 444. This course will address CAATE standards and guidelines for competencies and proficiencies using principles in exercise and rehabilitation techniques. (Formerly 5550:445)

**EXER:449 Organization & Administration for Health Care Professionals (3 Credits)**

Prerequisites: Senior level status and permission only. This class is a requirement for Athletic Trainers and Exercise Science majors. This class presents the skills necessary for supervising a health care facility. (Formerly 5550:449)

**EXER:456 Evidence Based Practice and Research Applications (3 Credits)**

Prerequisite: Permission of advisor. This course is designed to provide students an opportunity to review current research, create, implement, and present original research in an allied health related field. (Formerly 5550:456)

**EXER:459 Practicum Seminar (1 Credit)**

Prerequisite: Permission of instructor. This course will focus on the professional development process, including practicum preparation, resume development, interview skills and job search strategies. (Formerly 5550:459)

**EXER:460 Practicum in Physical Education (1-6 Credits)**

Prerequisites: Senior standing in the Sport Science and Wellness Program. Practical work experience with certified personnel in a discipline or profession related to physical education or sport and exercise science. May be repeated for a maximum of 12 credits. \*Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:460)

**EXER:465 Psychology of Injury Rehabilitation (2 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will address the cognitive and affective aspects of injury and rehabilitation of injury. Specifically the stages of rehabilitation and techniques to aid in the rehabilitation process. (Formerly 5550:465)

**EXER:467 Practicum II (1 Credit)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will allow the students to practice psychomotor skills in the high school setting while being supervised by a certified athletic trainer. (Formerly 5550:467)

**EXER:470 Injury Pathology & Therapeutic Interventions (3 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will discuss common musculoskeletal pathology and surgical procedure associated with a physically active population. (Formerly 5550:470)

**EXER:480 Special Topics: Physical Education (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics in physical education. May be repeated with change in topic. \*Students must be in the College of Education to take 300/400 level courses. (Formerly 5550:480)

**EXER:485 Exercise Science Capstone (2 Credits)**

Prerequisites: EXER 302 and EXER 403. Designed to familiarize students with current issues in exercise physiology. Students will be expected to obtain a professional certification during this course. (Formerly 5550:485)

## Family and Consumer Sciences (FCSC)

**FCSC:241 Introduction to Family and Consumer Sciences Education (3 Credits)**

Introduction to the teaching of Family and Consumer Sciences in the secondary schools. Emphasis on state standards, current trends and societal factors affecting career-technical programs. (Formerly 7400:241)

**FCSC:407 FCB Occupational Employment Experience (4 Credits)**

Provides student with knowledge of current business and industrial practices at level minimally commensurate with employment expectations of graduates of vocational job training programs in Family and Consumer Sciences. (Formerly 7400:407)

**FCSC:421 Special Problems in Family & Consumer Sciences (1-3 Credits)**

Additional study or apprentice experience in specialized field or preparation; group and individual experimentation. (Formerly 7400:421)

**FCSC:431 Professional Presentation Skills in Family and Consumer Sciences (3 Credits)**

Prerequisites: NUTR 141 or NUTR 250. Emphasis on development of abilities and strengths in coordination of equipment, materials, motion, speech, and presentation delivery relating to education and industry in Family and Consumer Sciences. (Formerly 7400:431)

**FCSC:447 Senior Seminar: Critical Issues in FCS Professional Develop (1 Credit)**

Prerequisites: FCS major & senior standing. Consideration of family and consumer sciences as a profession and its impact on the quality of life of individuals, families and their environments. Analysis of challenges facing the profession and all home economists. (Formerly 7400:447)

**FCSC:450 Families, Individuals & Environments (3 Credits)**

Prerequisites: Family Consumer Sciences major and senior standing or completion of 90 credits. Integrative exploration of issues affecting the well-being of individuals, families, and communities in the multiple environments in which they function. (Formerly 7400:450)

**FCSC:485 Seminar in Family & Consumer Sciences (1-3 Credits)**

Exploration and evaluation of current developments in selected areas.

**FCSC:491 Career-Technical FCS Instructional Strategies (3 Credits)**

Prerequisites: EDFN 241, EDFN 200, and FCSC 220. Organization of Career-Technical Family and Consumer Sciences programs in schools grades 4-12. Emphasis on strategies, compliance with state career-technical directives, student organizations, program planning, workplace replication and classroom observations. (Formerly 7400:491)

## Finance (FIN)

**FIN:300 Introduction to Finance (3 Credits)**

Prerequisites: MATH 145 and [ECON 200 or ECON 244]. Studies the sources and uses of funds for business. Students cannot get credit for this class and FIN 301. (For non-College of Business students). (Formerly 6400:300)

**FIN:301 Principles of Finance (3 Credits)**

Prerequisites: [ECON 200 or ECON 244], [MATH 145 with a grade of C- or better or higher math], ACCT 201, and completion of one of the following: ACCT 250, admittance to the College of Engineering with 48 credit hours completed, or admittance to the Actuarial Sciences program with 48 credit hours completed. An overview of the financial system and the major decision areas of the financial manager such as capital budgeting, financing, and working capital management. (Formerly 6400:301)

**FIN:302 Intermediate Corporate Finance (3 Credits)**

Prerequisite: FIN 301 with a grade of C or better. This second course in corporate finance builds upon FIN 301 to provide students with an analytic foundation for careers in business. (Formerly 6400:302)

**FIN:338 Financial Markets & Institutions (3 Credits)**

Prerequisite: FIN 300 or FIN 301 with a grade of C- or better. Studies the flows of funds. Analyzes major financial intermediaries. Money and capital markets reviewed with emphasis on interest rates and their impact upon administration of specific financial intermediaries. (Formerly 6400:338)

**FIN:341 Contemporary Investments (3 Credits)**

Prerequisite: FIN 300 or FIN 301. Fundamentals of investing for the individual investor. Students cannot get credit for this class and FIN 343. (For non-College of Business Administration students.) (Formerly 6400:341)

**FIN:343 Investments (3 Credits)**

Prerequisites: [FIN 300 or FIN 301 with a grade of C- or better] and [STAT 262, STAT 461, or MGMT 304]. Range of security investment media explored, alternative investment programs considered and role of securities markets through which goals can be achieved studied. (Formerly 6400:343)

**FIN:390 Real Estate Principles: Value Approach (3 Credits)**

A study of real estate: the profession, the process, and the product. Emphasis is on real estate as a product and the valuation process. The measurement of value requires tool abilities in accounting, statistics and finance. (Formerly 6400:390)

**FIN:402 Income Property Appraisal (3 Credits)**

Prerequisites: at a minimum must have been admitted to a major in a four-year degree granting college, FIN 301, or permission of instructor. Advanced course in real property appraisal and valuation. Techniques and concepts will be covered along with the theory underlying such techniques. (Formerly 6400:402)

**FIN:403 Real Estate Finance (3 Credits)**

Prerequisites: at a minimum must have been admitted to a major in a four-year degree granting college, and FIN 301. Advanced course in real estate covering financing of and investment in real property. Included are investment techniques, methods, institutions, instruments, valuation, appraisal and policy issues. (Formerly 6400:403)

**FIN:436 Commercial Bank Management (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, ACCT 250, [FIN 300 or FIN 301], and FIN 338. Study of administrative policy determination and decision making within the commercial bank. Analysis of policy making in areas of liquidity, loan and security investment and sources of funds. (Formerly 6400:436)

**FIN:437 International Business Finance (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, and [FIN 300 or FIN 301] with a grade of C- or better. Theory and practice of financial wealth maximization in the international business enterprise. (Formerly 6400:437)

**FIN:438 International Banking (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college and [ECON 461 or FIN 437]. Examination of recent trends in the expansion of international banking activities and associated revenue maximizing strategies. (Formerly 6400:438)

**FIN:448 Advanced Portfolio Management (3 Credits)**

Prerequisites: FIN 343 and [ECON 325 or MGMT 305]. Advanced Portfolio Management is a semester long case course. The case is the management of the UA Student-Managed Investment Fund. This course's primary activity will be the active management of the Fund. Current and selected topics relating to investments and financial markets will be discussed as needed in the rapidly changing world economy. The course will give the student practical experience in portfolio construction, management and evaluation by managing real money on a real time basis. (Formerly 6400:448)

**FIN:473 Financial Statement Analysis (3 Credits)**

Prerequisites: Admitted to a major in a four-year degree granting college, [FIN 301 with a grade of C- or better and ACCT 321], or FIN 302. Analysis and interpretation of the financial position and performance of the business firm from the perspective of the credit and financial analyst. Emphasizes mechanics and art of financial analysis. (Formerly 6400:473)

**FIN:485 Financial Strategy (3 Credits)**

Prerequisites: FIN 302 with grade of C or better and admission to a major in a four-year degree granting college. Pre/Corequisite: FIN 473. Case study based course with applications of financial management theories and tools to make decisions in capital budgeting, capital structure, and working capital management. (Formerly 6400:485)

**FIN:489 Advanced Financial Analytics (3 Credits)**

Prerequisites: Admitted to a major in a four-year degree granting college, senior standing, [FIN 302 with a grade of C or better], FIN 338, FIN 343 and [MGMT 305 or ECON 325]. Capstone course with analysis of financial models using advanced spreadsheet techniques. Models from personal finance, corporate finance and investments are incorporated, with applications in financial planning, forecasting, portfolio theory and security valuation, option valuation, capital investment and cost of capital. (Formerly 6400:489)

**FIN:490 Selected Topics in Finance (1-3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, ACCT 250, and FIN 301. Provides opportunity for study of special topics not covered in current finance courses. (Formerly 6400:490)

**FIN:492 Internship in Financial Management (3 Credits)**

Prerequisite: Permission of designated faculty member. On the job experience with public or private sector organizations in the financial services field. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers required. (Formerly 6400:492)

**FIN:495 Research Project in Finance (1-3 Credits)**

Prerequisites: FIN 302, FIN 338, FIN 343 and admission to a major in a 4-year degree granting college. Pre/Corequisite: FPL 411 or RMI 414 or RMI 415 or FPL 417 or RMI 418 or FPL 432 or FIN 436 or FIN 437 or FIN 438 or FIN 448 or RMI 461 or FIN 473 or FIN 485 or FIN 489. Taken concurrently with or following a 400-level field Finance course. Involves independent out-of-class work on a project designed in consultation with the designated 400-level course instructor. (Formerly 6400:495)

**FIN:499 Independent Study: Finance (1-3 Credits)**

Prerequisite: Permission of department head. Provides means for individualized in-depth study of finance problem or problems from which student can derive significant benefit. (Formerly 6400:499)

## Financial Planning (FPL)

**FPL:200 Foundations of Personal Finance (3 Credits)**

Explores application of finance concepts in personal finance with emphasis on the personal financial planning process. (Formerly 6400:200)

**FPL:332 Foundations of Financial Planning (3 Credits)**

Prerequisite: [FIN 300 or FIN 301] with a grade of C or better. Introduction to financial planning, including goal setting, cash management, credit, housing, education planning, and selected professional issues. (Formerly 6400:332)

**FPL:411 Estate and Financial Planning (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, [FIN 300 or FIN 301] with a minimum grade of C- or better, or permission of Finance Department Chair. Pre/Corequisite: ACCT 330. Application of estate planning methodologies and policies to financial planning. (Formerly 6400:411)

**FPL:417 Retirement Planning (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, and [FIN 300 or FIN 301] with a grade of C- or better, or permission of the instructor. An in-depth examination of retirement and estate planning objectives, methods, and strategies including the study of employee benefits plans, public and private pension funds, and lifetime strategies for maximization of estate assets. (Formerly 6400:417)

**FPL:432 Financial Planning Capstone (3 Credits)**

Prerequisites: Must have been admitted to a major in a four-year degree granting college, ACCT 330, [ACCT 410 or FPL 411], FPL 417, [FPL 332 with a grade of C or better], and [FIN 341 or FIN 343]. Pre/Corequisite: RMI 415 and RMI 414. Explores financial planning function, including contact, data acquisition, plan development and implementation; addressing planning techniques and financial planning ethical issues. (Formerly 6400:432)

**FPL:493 Internship in Financial Planning (3 Credits)**

Prerequisite: Permission of designated faculty member. On the job experience with public or private sector organizations in the financial services field. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers required. (Formerly 6400:493)

## Fire Protection Technology (FIRE)

**FIRE:100 Introduction to Fire Protection (4 Credits)**

History and philosophy of fire protection; introduction to agencies involved; current legislative developments; discussion of current related problems, expanding future of fire protection and career orientation. (Formerly 2230:100)

**FIRE:102 Fire Safety in Building Design & Construction (3 Credits)**

Exploration of building construction and design with emphasis on fire protection concerns; review of related statutory and suggested guidelines local, state and national scope. (Formerly 2230:102)

**FIRE:104 Fire Investigation Methods (4 Credits)**

History of fire investigation; gathering of evidence and development of technical reports; fundamentals of arson investigation; processing of criminal evidence and procedures related to local and state statutes. (Formerly 2230:104)



**FIRE:202 Incident Management for Emergency Responders (4 Credits)**

Efficient and effective use of human resources, equipment and systems. Emphasis on preplanning, incident management, problem solving related to emergency preparation and response. (Formerly 2230:202)

**FIRE:204 Fire and Life Safety Education (3 Credits)**

Application and analysis necessary for the implementation of the Life Safety Code Handbook. (Formerly 2230:204)

**FIRE:205 Fire Detection & Suppression Systems (3 Credits)**

Design, installation, maintenance and utilization of portable fire extinguishing appliances and pre-engineered automatic systems; fire detection and alarm signaling systems operational capabilities, requirements. (Formerly 2230:205)

**FIRE:206 Fire Sprinkler System Design (3 Credits)**

Design, installation and operation of automatic fire suppression systems. Includes sprinkler, foam, carbon dioxide, dry chemical, halogenated agent systems. (Formerly 2230:206)

**FIRE:250 Hazardous Materials (4 Credits)**

Prerequisite: FIRE 100. Study of chemical characteristics and reactions related to storage, transportation and handling of hazardous materials. Emphasis on emergency situations, firefighting and control. (Formerly 2230:250)

**FIRE:254 Fire Prevention (3 Credits)**

Prerequisite: FIRE 100. Fire codes and standards relative to fire prevention, inspection, and code enforcement. (Formerly 2230:254)

**FIRE:257 Fire & Safety Issues for Business & Industry (3 Credits)**

Industrial fire and safety issues related to specialized hazards, federal and state regulations. Emphasis on emergency response team preparedness, confined space entry, and rescue. (Formerly 2230:257)

**FIRE:260 Fundamentals of Firefighting (3 Credits)**

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 261, FIRE 262, and FIRE 263. Course 1 of 4: Minimum training level to function as a firefighter in the State of Ohio, identified in the National Fire Protection Association standards, NFPA 1001. (Formerly 2230:260)

**FIRE:261 Firefighter I (4 Credits)**

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 260, FIRE 262, and FIRE 263. Course 2 of 4: Minimum training level to function as a firefighter in the State of Ohio, identified in the National Fire Protection Association standards, NFPA 1001. (Formerly 2230:261)

**FIRE:262 Firefighter II (4 Credits)**

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 260, FIRE 261, and FIRE 263. Course 3 of 4: Minimum training level to function as a firefighter in the State of Ohio, identified in the National Fire Protection Association standards, NFPA 1001. (Formerly 2230:262)

**FIRE:263 Emergency Vehicle Operations (1 Credit)**

Prerequisites: Must be accepted into the Fire Academy, possess a valid driver's license, and permission of the department. Corequisites: FIRE 260, FIRE 261, and FIRE 262. Course 4 of 4: Proper operation of an emergency vehicle is critical for fire service providers. The Ohio Emergency Vehicle Operations Course (EVOC) is designed to enhance safe vehicle operation by stressing theory and principles of defensive driving in both emergency and non-emergency situations. Students will learn safe driving practices, defensive driving principles, the responsibilities of an emergency vehicle driver, how to safely operate emergency vehicles during emergent responses, and the difficulties of driving fire apparatus. The course include hands-on driving exercises that will enhance the ability of a student to operate a vehicle during an emergency situation by teaching personal and vehicle control limitations. The course is a requirement to qualify for Ohio Firefighter I and Firefighter II certification. (Formerly 2230:263)

**FIRE:280 Fire Service Administration (4 Credits)**

Prerequisite: FIRE 100. Fire officer professional qualifications; federal, state regulations governing department operations-OSHA, EPA; emergency and non-emergency operations procedures-ICS, IMS, Emergency Operations Center are presented. (Formerly 2230:280)

**FIRE:290 Special Topics: Fire Science Technology (1-4 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission. Selected topics or subject areas of interest in fire protection technology. (Formerly 2230:290)

**FIRE:294 Advanced Fire Investigation Methods (3 Credits)**

Prerequisites: FIRE 100, FIRE 104, FIRE 205, and FIRE 206. Designed to meet student and in service fire investigators need to understand new/ updated technology and methodology in managing fire investigations. (Formerly 2230:294)

**FIRE:295 Field Experience I (2 Credits)**

Prerequisites: 30 credit hours of successfully completed course work in the Fire Protection Technology program which includes FIRE 100, FIRE 102, FIRE 104, FIRE 204, FIRE 205, and FIRE 280 and permission. Course designed to measure the knowledge, skills and abilities required to become a graduate of The University of Akron, Fire Protection Program. (Formerly 2230:295)

**FIRE:296 Field Experience II (2 Credits)**

Prerequisites: 30 credit hours of successfully completed course work in the Fire Protection Technology program which includes FIRE 100, FIRE 102, FIRE 104, FIRE 204, FIRE 205, and FIRE 280. If not currently an active fire fighter, you must take FIRE 295 first. Course designed to measure the knowledge, skills and abilities required to become a front line supervisor, work in hazmat bureau or beginning arson investigator. (Formerly 2230:296)

**FIRE:297 Independent Study: Fire Protection (1-3 Credits)**

Prerequisite: FIRE 100 and permission. Selected topics and special areas of study in fire protection technology under the supervision and evaluation of a selected faculty who assigns specific arrangements. (Formerly 2230:297)

## French (FREN)

**FREN:101 Beginning French I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3520:101)

**FREN:102 Beginning French II (4 Credits)**

Sequential. Prerequisite: FREN 101 or placement test. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3520:102)

**FREN:201 Intermediate French I (3 Credits)**

Sequential. Prerequisite: FREN 102 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3520:201)

**FREN:202 Intermediate French II (3 Credits)**

Sequential. Prerequisite: FREN 201 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3520:202)

**FREN:210 French and Francophone Cultures Through Film (3 Credits)**

Prerequisites: Sophomore or higher standing (30 credit hours including ENGL 111 and ENGL 112) or equivalent. Exploration of French and Francophone cultures through viewing of films subtitled in English. Readings and discussions in English. (Formerly 3520:210)

**Gen Ed:** - Humanities; - Global Diversity

**FREN:300 Contemporary French and Francophone Cultures (3 Credits)**

Prerequisite: FREN 202. Introduction to contemporary lives and cultures in France and other Francophone countries as portrayed in recent documents, literary works and films. (Formerly 3520:300)

**FREN:301 French Conversation (3 Credits)**

Sequential. Prerequisite: FREN 202 or placement test. Development of speaking skills beyond the intermediate level. Practice of listening comprehension, correct pronunciation, extended and grammatically sound discourse. May be repeated for a total of six credits. (Formerly 3520:301)

**FREN:302 French Composition (3 Credits)**

Sequential. Prerequisite: FREN 202. Development of writing skills beyond intermediate level. (Formerly 3520:302)

**FREN:303 French Culture & Civilization I (3 Credits)**

Prerequisite: FREN 202 or equivalent. History of France and French cultural heritage from its origins to mid-20th century. (Formerly 3520:303)

**FREN:304 French Culture & Civilization II (3 Credits)**

Prerequisite: FREN 202 or equivalent. Modern history of France. Focus on political and social trends since 1960. (Formerly 3520:304)

**FREN:305 Introduction to French Literature I (3 Credits)**

Prerequisite: FREN 202. Survey of French literature from its origins to present, with lectures, reading and class discussion of representative works. (Formerly 3520:305)

**FREN:306 Introduction to French Literature II (3 Credits)**

Prerequisite: FREN 202. Survey of French literature from its origins to present, with lectures, reading and class discussion of representative works. (Formerly 3520:306)

**FREN:308 Internship in France (1-3 Credits)**

Permission of the French section advisor. (May be taken for a total of six credits. No more than three credits may be applied toward a FREN major.) Student's internship which results in portfolio on career applications of the discipline of French. (Formerly 3520:308)

**FREN:311 Contemporary French Society (3 Credits)**

Prerequisite: FREN 202. A study of contemporary French society, including customs and political and social issues. Conducted in France. Counts toward Culture and Civilization requirement for major. (Formerly 3520:311)

**FREN:312 French/Francophone Cultural Experience Abroad (1-3 Credits)**

Prerequisite: Permission of the French section advisor. May be taken for a total of six credits. No more than three credits may be applied toward a FREN major. Student's residence and independent study/project in French-speaking country which results in demonstrable understanding of the country's culture (Formerly 3520:312)

**FREN:315 French Phonetics (3 Credits)**

Pre/Corequisite: FREN 202 or equivalent. Intensive drill in pronunciation with correction and improvement of student's accent, emphasis on articulation, intonation and rhythm. (Formerly 3520:315)

**FREN:350 Themes in French Literature in Translation (3 Credits)**

Prerequisite: HIST 210 or HIST 221. (May not be taken for credit toward the French major) Readings, discussion of novels and plays relating to selected themes of French literature. Texts and discussion in English. (Formerly 3520:350)

**FREN:351 Translation: French (3 Credits)**

Prerequisite: FREN 202. Study of translation techniques, both French to English and English to French. Emphasis on stylistics and interpretation of idioms. (Formerly 3520:351)

**FREN:352 Translation: Business French (3 Credits)**

Prerequisite: FREN 351 or equivalent. Application of translation techniques with particular stress on business styles, formats, and vocabulary. Especially recommended for students interested in international business. (Formerly 3520:352)

**FREN:402 Advanced French Grammar (3 Credits)**

Prerequisite: FREN 302. Advanced study of normative French grammar with emphasis on syntax, morphology, grammatical structure and phonetic principles. (Formerly 3520:402)

**FREN:403 Advanced French: Written and Oral Communication (3 Credits)**

Prerequisite: [FREN 301 and FREN 302] or permission. Development of writing and speaking skills beyond that achieved in 301 and 302 through intensive practice and grammar review. (Formerly 3520:403)

**FREN:407 French Literature of the Middle Ages & the Renaissance (4 Credits)**

Prerequisite: FREN 305 or FREN 306. Reading and discussion of selected Medieval and Renaissance literary works. Conducted in French. (Formerly 3520:407)

**FREN:413 French Cinema (3 Credits)**

Prerequisites: FREN 301 or FREN 302 or permission from instructor. Study and discussion of various aspects of French culture and civilization as characterized in movies. (Formerly 3520:413)

**FREN:419 19th Century French Literature (4 Credits)**

Prerequisite: FREN 305 or FREN 306. Reading and discussion of selected works pertaining to romantic, realistic and naturalistic movements. Conducted in French. (Formerly 3520:419)

**FREN:422 French: Special Topics in Advanced Language Skills, Culture or Literature (1-4 Credits)**

Prerequisite: FREN 202. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3520:422)

**FREN:427 20th Century French Literature (4 Credits)**

Prerequisite: FREN 305 or FREN 306 or equivalent. Reading and discussion of the most representative works of period. Conducted in French. (Formerly 3520:427)

**FREN:430 Contemporary Quebec (3 Credits)**

Prerequisite: FREN 301 or FREN 302 or permission. Historical, political, sociological and cultural overviews of Québec, offering an in-depth examination of questions of identity through the study of literature and popular culture. (Formerly 3520:430)

**FREN:431 Francophone Literature (3 Credits)**

Prerequisite: FREN 300 or FREN 301 or FREN 302 or permission. The problematics of identity (race, class) in postcolonial context, studied through literary texts by authors from Africa, Caribbean, and Québec. (Formerly 3520:431)

**FREN:460 Selected Themes in French Literature (3 Credits)**

(May be repeated.) Conducted in French. Prerequisites: FREN 305 and FREN 306. Reading and discussion of literary works selected according to an important theme. (Formerly 3520:460)

**FREN:497 Individual Reading in French (1-3 Credits)**

Prerequisite: FREN 202 and permission of department chair. (Formerly 3520:497)

**FREN:498 Individual Reading in French (1-3 Credits)**

Prerequisite: FREN 202 and permission of department chair. (Formerly 3520:498)

## General Engineering (GNEN)

**GNEN:101 Tools for Engineering (3 Credits)**

Corequisite: MATH 221. Introduction to engineering. Free hand, engineering, and CAD drawing. Introduction to computer programming, computer applications including word processing, spreadsheets, data base. Introduction to engineering economics. Required for Chemical, Civil, and Electrical Engineering majors. (Formerly 4100:101)

**GNEN:110 Women in Engineering Seminar & Peer Group (1 Credit)**

Beginning women students may elect this one-credit course that provides an overview of the career opportunities for women in engineering. The course utilizes dynamic speakers to reinforce the student's educational and career choices. Small groups meet weekly, led by an upper-class engineering student. This interactive peer environment fosters personal development for first-year students. (Formerly 4100:110)

**GNEN:120 IDEA Engineering Seminar (1 Credit)**

Explore career opportunities/personal development in all fields of engineering, assist with transition from high school to engineering studies. Of particular interest to underrepresented groups. (Formerly 4100:120)

**GNEN:180 Engineering Design (1 Credit)**

See department for course description. (Formerly 4100:180)

**GNEN:200 CEPS Internship (0 Credits)**

Prerequisites: Admission to an engineering major within the College of Engineering and Polymer Science and permission. Elective for student who has completed the first-year courses in their curricula. Practice in industry and comprehensive written reports of this experience. (Formerly 4100:200)

**GNEN:300 Cooperative Education Work Period (0 Credits)**

Prerequisites: Admission to the Cooperative Education, College of Engineering and Polymer Science Certificate program, and sophomore standing in major. Elective for students in Certificate program who have completed the second-year courses in their curricula. Practice in industry and comprehensive written reports of this experience. (Formerly 4100:300)

**GNEN:301 Cooperative Education Work Period (0 Credits)**

Prerequisites: Admission to the Cooperative Education, College of Engineering and Polymer Science Certificate program, and junior standing in major. Required for students in Certificate program. Practice in industry and comprehensive written reports of this experience. Offered spring semester of third year. (Formerly 4100:301)

**GNEN:302 Cooperative Education Work Period (0 Credits)**

Prerequisites: Admission to the Cooperative Education, College of Engineering and Polymer Science Certificate program, and junior standing in major. Required for students in Certificate program. Practice in industry and comprehensive written reports of this experience. Offered fall semester of fourth year. (Formerly 4100:302)

**GNEN:400 Engineering Management and Leadership (3 Credits)**

This is a case and discussion oriented course that examines the role of the engineering manager as a leader, problem solver, strategic planner, and a well-rounded business minded individual. (Formerly 4100:400)

**GNEN:403 Cooperative Education Work Period (0 Credits)**

Prerequisites: Admission to the Cooperative Education, College of Engineering and Polymer Science Certificate program, and junior standing in the major. Required for students in Certificate program. Practice in industry and comprehensive written reports of this experience. Offered summer after fourth year. (Formerly 4100:403)

## General Studies - Physical Education (PHED)

**PHED:102 Physical Education Activities I: Fitness, Leisure, & Healthy Life Style (3 Credits)**

Introduction to fitness and leisure activities, as well as healthy life style. Knowledge of developing programs that lead to fitness, leisure and healthy life style for individuals as well as groups. (Formerly 5550:102)

**PHED:120 Archery (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:120)

**PHED:121 Badminton (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:121)

**PHED:122 Basketball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:122)

**PHED:123 Bowling (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:123)

**PHED:126 Fitness and Wellness (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:126)

**PHED:127 Golf (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:127)

**PHED:128 Gymnastics (Apparatus) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:128)

**PHED:129 Gymnastics (Tumbling) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:129)

**PHED:130 Handball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:130)

**PHED:131 Indoor Soccer (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:131)

**PHED:132 Karate (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:132)

**PHED:133 Lifeguard Training (2 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:133)

**PHED:134 Modern Dance (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:134)

**PHED:135 Racquetball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:135)

**PHED:136 Rugby (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:136)

**PHED:138 Scuba (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:138)

**PHED:139 Self Defense (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:139)

**PHED:140 Skiing (Cross-Country) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:140)

**PHED:141 Skiing (Downhill) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:141)

**PHED:142 Soccer (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:142)

**PHED:143 Social Dance (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:143)

**PHED:145 Squash Rackets (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:145)

**PHED:146 Swimming (Beginning) (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:146)

**PHED:147 Swimming (Intermediate) (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:147)

**PHED:149 Team Handball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:149)

**PHED:150 Tennis (Beginning) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:150)

**PHED:151 Volleyball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:151)

**PHED:152 Water Polo (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:152)

**PHED:153 Water Safety (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:153)

**PHED:154 Wrestling (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:154)

**PHED:155 Basic Kayaking (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:155)

**PHED:170 Varsity Baseball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:170)

**PHED:171 Varsity Basketball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:171)

**PHED:172 Varsity Cross Country (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:172)

**PHED:173 Varsity Football (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:173)

**PHED:174 Varsity Golf (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:174)

**PHED:175 Varsity Soccer (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:175)

**PHED:176 Varsity Softball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:176)

**PHED:177 Varsity Swimming (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:177)

**PHED:178 Varsity Tennis (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:178)

**PHED:179 Varsity Track (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:179)

**PHED:180 Varsity Wrestling (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports(170-181).\*\* Varsity sports are one credit each. (Formerly 5540:180)

**PHED:181 Varsity Volleyball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:181)

**PHED:182 Varsity Riflery (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:182)

**PHED:183 Varsity Cheerleading (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:183)

**PHED:190 Special Topics: General Studies Physical Education (0.5-2 Credits)**

Weight training, self-defense for the blind, water safety instruction, beginning yoga, tai chi, billiards, intermediate and advanced bowling, intermediate and advanced golf, advanced self-defense. (Formerly 5540:190)

**PHED:193 Orientation to Physical and Health Education (3 Credits)**

Introduction to physical and health education to students who pursuit state license in teaching physical and health education. It's also the required course before the admission to the college of education. (Formerly 5550:193)

**PHED:194 Sports Officiating (2 Credits)**

Knowledge of rules for interscholastic sports and officiating techniques. (Formerly 5550:194)

**PHED:195 Foundations of Physical Education (3 Credits)**

Concepts analysis of games and play and application of these concepts to the teaching/learning process in physical education at all ages. (Formerly 5550:195)

**PHED:199 Special Topics: General Studies Physical Education (0.5-2 Credits)**

See department for course description. (Formerly 5540:199)

**PHED:200 Aquatic Facility Management (3 Credits)**

This course is designed to explore, acquire, and discuss knowledge and techniques of aquatic facility operation and management. (Formerly 5550:200)

**PHED:201 Water Safety Instructor (2 Credits)**

This course is designed to train students to teach swimming and water safety courses from Pre-K to adult. (Formerly 5540:201)

**PHED:202 Diagnosis of Motor Skills (3 Credits)**

This course introduces athletic trainers and physical education majors to the sciences of diagnosing motor skills. (Formerly 5550:202)

**PHED:203 Measurement & Evaluation in Physical Education (3 Credits)**

Statistical procedures needed for analysis and interpretation of tests. Evaluation procedures, testing instruments, and techniques for administering tests are discussed and practiced. Three hours lecture. (Formerly 5550:203)

**PHED:204 Individual and Team Sports (2 Credits)**

Intro to individual and team sports that are commonly taught in schools. Course presents knowledge, fundamental skill development, psychomotor skills analysis for the content areas. (Formerly 5550:204)

**PHED:205 Team Sports (2 Credits)**

The purpose of this course is to teach students how to teach team sports. (Formerly 5550:205)

**PHED:207 Introduction to Rock Climbing (1 Credit)**

This course teaches basic rock-climbing skills. No previous experience in necessary. (Formerly 5540:207)

**PHED:211 First Aid & Cardiopulmonary Resuscitation (2 Credits)**

Based on American Red Cross standards for first aid and cardiopulmonary resuscitation. Instruction and skills practice for sudden illness/emergencies is provided. Two hours lecture. (Formerly 5550:211)

**PHED:212 First Aid and CPR for Professional Rescuer (2 Credits)**

Prerequisite: Permission of instructor. First aid and cardiopulmonary resuscitation for health care professionals based upon American Red Cross standards. Instruction and skills practice for sudden illness/emergencies is provided. (Formerly 5550:212)

**PHED:235 Concepts of Motor Learning & Development (3 Credits)**

This course will introduce key motor learning concepts and analysis of developing fundamental motor skills. Three hours lecture. (Formerly 5550:235)

**PHED:245 Adapted Physical Education (3 Credits)**

Identification of atypical movement among various exceptional individuals, with adapted physical education programming experience in a laboratory setting. (Formerly 5550:245)

**PHED:306 PE Act IV: Badminton/Golf (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of badminton and golf. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:306)

**PHED:307 Physical Education Activities V (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of tennis and volleyball. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:307)

**PHED:308 PE Act IV: Dance & Tumbling (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of dance and tumbling. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:308)

**PHED:335 Movement Experiences for Children (3 Credits)**

Prerequisites: PHED 130, PHED 193, and PHED 235. Course focuses on use of fundamental motor skill analysis to structure movement lessons for children from early childhood through elementary years. One hour lecture, two hours lab. (20 clinical hours, 10 field hours.) Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:335)

**PHED:336 Motor Learning & Development for Early Childhood (2 Credits)**

Physical fitness, fundamental motor skills, motor development and learning for early childhood, birth to age eight. Creating an environment of motor experiences for young children (10 field hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:336)

**PHED:428 Nutrition for Teachers and Coaches (3 Credits)**

Covers nutritional basics and topics related to teaching physical education/health and coaching athletes, including basic nutrition, eating disorders, meal preparation, and trends in nutrition. (Formerly 5550:428)

**PHED:436 Foundations & Elements of Adapted Physical Education (3 Credits)**

Principles, components, and strategies necessary in providing motor activities for handicapped students via application of a neuro-developmental model and alternate methods. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:436)

**PHED:446 Instructional Techniques in Secondary Physical Education & Health (3 Credits)**

Prerequisites: PHED 102, PHED 193, PHED 204, and PHED 205. Instructional strategies for teaching secondary students in physical and health education. A variety of instructional models will be introduced appropriate to the learners' age and development. It is a required course for the physical education licensure. Two hours lecture, two hours lab (30 clinical hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:446)

**PHED:447 Instructional Techniques for Children in Physical Education & Health Education (3 Credits)**

Prerequisites: PHED 130 and PHED 193. Instructional strategies for teaching children in physical and health education. A variety of instructional models will be introduced appropriate to the learners' age and development. Required for the physical education licensure. (30 clinical hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:447)

**PHED:450 Organization & Administration of Physical Education, Intramural and Athletics (3 Credits)**

Prerequisite: Admission to the Sport Science and Wellness Program or instructor's permission. Investigation of procedures for conducting physical education, intramural, and athletic programs. Includes tournament designs, supplies and equipment, liability, curriculum, and general administration. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:450)

**PHED:451 Assessment & Evaluation in Adapted Physical Education (3 Credits)**

Investigation, analysis, and selection of appropriate assessment instruments, as well as methodology for determining instructional objectives and activities for handicapped students. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:451)

**PHED:452 Foundations of Sport Science, Physical and Health Education (3 Credits)**

Prerequisite: Admission to the Sport Science and Wellness Program. Overview of the emergence of sport science, physical and health education as a profession and the supporting role of underlying scholarly and scientific disciplines. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:452)

**PHED:490 Workshop in Physical Education (1-3 Credits)**

Practical, intensive and concentrated involvement with current curricular practices in areas related to physical education. Students must be in the College of Education to take 300/400 level courses. (Formerly 5550:490)

**PHED:494 Student Teaching Colloquium for Physical & Health Education (2 Credits)**

Corequisite: PHED 495. Students meet during student teaching to discuss concerns about student teaching and analyze previous learning as it relates to their future as a professional educator. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:494)

**PHED:495 Student Teaching for Physical & Health Education (11 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing OAE subject test, and approved portfolio. Corequisite PHED 494. Planned teaching experience in schools selected and supervised by the Office of Student Teaching. (Formerly 5550:495)

**PHED:497 Independent Study: Physical Education (1-6 Credits)**

Prerequisite: Permission of adviser. Analysis of specific topic related to a current problem in physical education or sport and exercise science. May be repeated for a maximum of 12 credits. \*Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:497)

## Geography and Planning (GEOG)

**GEOG:100 Introduction to Geography (3 Credits)**

Analysis of world patterns of population characteristics, economic activities, settlement features, landforms, climate as interrelated factors. (Formerly 3350:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**GEOG:250 World Regional Geography (3 Credits)**

Survey of world regions with focus on both physical and human landscapes; emphasis on world patterns and issues from a regional perspective. (Formerly 3350:250)

**GEOG:275 Geography of Cultural Diversity (2 Credits)**

Prerequisites: 32 credit hours including English Composition I and II (ENGL 111, ENGL 112) or equivalent. Evaluation of cultural elements unique to various geographical regions to explain why different people utilize resources differently, and how cultural diversity affects regional conflicts. (Formerly 3350:275)

**Gen Ed:** - Global Diversity

**GEOG:305 Maps & Map Reading (3 Credits)**

Introduction to use and interpretation of maps. Study of basic map types, elements, symbolism, and historical and cultural context of maps. (Laboratory.) (Formerly 3350:305)

**GEOG:310 Physical & Environmental Geography (3 Credits)**

Landforms, weather and climate, soils and vegetation and natural hazards. Nature and distribution of these environmental elements and their significance to society. Laboratory. (Formerly 3350:310)

**GEOG:314 Climatology (3 Credits)**

Prerequisite: GEOG 310 or permission. Analysis and classification of climates, with emphasis on regional distribution. Basic techniques in handling climate data. (Formerly 3350:314)

**GEOG:320 Economic Geography (3 Credits)**

Geographical basis for production, exchange, consumption of goods. Effect of economic patterns on culture and politics. (Formerly 3350:320)

**GEOG:350 Geography of the United States & Canada (3 Credits)**

Regional and topical study of United States and Canada, with emphasis on environmental, economic and cultural patterns and their interrelationships. (Formerly 3350:350)

**Gen Ed:** - Domestic Diversity

**GEOG:351 Ohio: Environment & Society (3 Credits)**

Regional and topical analysis of cultural, economic and environmental patterns; also in comparison with other states. (Formerly 3350:351)

**GEOG:353 Latin America (3 Credits)**

Analysis of relationship of cultural and economic patterns to physical environment in Mexico, Central America, the Caribbean and South America. (Formerly 3350:353)

**GEOG:356 Europe (3 Credits)**

Regional and topical analysis of cultural, economic and environmental patterns. (Formerly 3350:356)

**GEOG:360 Asia (3 Credits)**

Environmental, cultural and economic geography of East, Southeast, South Asia and Middle East with emphasis on the contemporary. (Formerly 3350:360)

**GEOG:363 Africa South of the Sahara (3 Credits)**

Environmental and human bases of regional contrasts. Emphasis on tropical environmental systems and changing patterns of resource utilization. (Formerly 3350:363)

**GEOG:397 Special Problems in Geography and Planning (1-3 Credits)**

(May be repeated for a total of five credits) Prerequisite: Permission of instructor. Directed reading and research in special field of interest. (Formerly 3350:397)

**GEOG:405 Geographic Information Systems (3 Credits)**

Prerequisite: GEOG 305. Introduction to the principles and concepts underlying geographic information systems (GIS) and their application in professional practice and academic research. Laboratory. (Formerly 3350:405)

**GEOG:407 Advanced Geographic Information Systems (3 Credits)**

Prerequisite: GEOG 405. Advanced instruction in the theory and application of geographic information systems (GIS) including hands-on experience with both raster and vector GIS. Laboratory. (Formerly 3350:407)

**GEOG:409 Archaeogeophysical Survey (3 Credits)**

Prerequisites: ANTH 110 or GEOL 101 or GEOG 310. Advanced instruction in subsurface geophysical survey techniques in archaeology. Emphasis on magnetic gradiometry and electrical resistivity techniques, image processing and geological and archaeological interpretation. (Formerly 3350:409)

**GEOG:415 Environmental Planning (3 Credits)**

Scientific and technical principles for decision-making in planning, with emphasis on soils, land use, and water quality issues. Data sources and methods of site evaluation. (Formerly 3350:415)

**GEOG:420 Urban Geography (3 Credits)**

Spatial structure of urban systems; interaction between cities; internal structure of cities. Perspectives on urban change; contemporary urban geographic problems; urban and regional planning issues. (Formerly 3350:420)

**GEOG:422 Transportation Systems Planning (3 Credits)**

Study and analysis of transportation systems from a geographic perspective. Emphasis on transportation problems and issues, elements of transportation planning. (Formerly 3350:422)

**GEOG:424 Military Geography (3 Credits)**

Influence of physical and human geography on military operations and military history. Role played by geography in international conflicts. (Formerly 3350:424)

**GEOG:432 Land Use Planning Law (3 Credits)**

Acquaint student with past and present approaches to land use control in the United States and examine the political, economic, social and legal forces that have shaped existing land-use legislation. (Formerly 3350:432)

**GEOG:433 Practical Approaches to Planning (3 Credits)**

Introduction to the history, theories and forms of urban planning. (Formerly 3350:433)

**GEOG:437 Planning Analysis & Projection Methods (3 Credits)**

Introduction to the primary analytic techniques for small-area demographic and economic analysis and projection. (Formerly 3350:437)

**GEOG:438 Land Use Planning Methods (3 Credits)**

Application of GIS and other computer-based tools to the preparation, implementation and evaluation of comprehensive land use plans. (Formerly 3350:438)

**GEOG:439 History of Urban Design & Planning (3 Credits)**

Origins of human settlements and planning from the perspective of urban design and related societal trends. Comparison of world regional and historical urban forms. Experience in "reading" settlements as visual landscapes. (Formerly 3350:439)

**GEOG:440 Cartography (3 Credits)**

Use of graphic/cartographic principles and techniques as a means of presenting geographical information on maps and producing maps. Laboratory. (Formerly 3350:440)

**GEOG:441 Global Positioning Systems (GPS) (1 Credit)**

Fundamentals of Global Positioning System (GPS), with emphasis on geographic and planning activities. Includes hands-on exercises. (Formerly 3350:441)

**GEOG:442 Cartographic Theory and Design (3 Credits)**

Prerequisite: GEOG 440 or permission of instructor. Principles and techniques of thematic mapping. Stresses maps as communications tools. Examines principle thematic mapping techniques and means of presenting qualitative and quantitative data. Laboratory. (Formerly 3350:442)

**GEOG:443 Urban Applications in GIS (3 Credits)**

Prerequisite: GEOG 405 or permission of instructor. Applications of GIS in the urban context, including methods used for analysis of population density gradients, migration, and accessibility. (Formerly 3350:443)

**Gen Ed:** - Domestic Diversity

**GEOG:444 Applications In Cartography & Geographic Information Systems (3 Credits)**

Prerequisites: GEOG 340 and GEOG 405. Application of analytic and presentation techniques from cartography and geographic information systems to practical problems in geography and planning. Laboratory. (Formerly 3350:444)

**GEOG:445 GIS Database Design (3 Credits)**

Prerequisite: GEOG 405. Introduction to theory and concepts of geographic data modeling, geodatabase design, and topology. Emphasis on current practices and methodologies in geography and planning.

**GEOG:446 GIS Programming and Customization (3 Credits)**

Prerequisite: GEOG 405. Introduction to use of scripting languages for customizing the interface and extending the functionality of desktop GIS software.

**GEOG:447 Remote Sensing (3 Credits)**

Prerequisite: GEOG 305. Concepts, systems, and methods of applying aerial photography, satellite imagery, and other remote-sensing data for analyzing geographic, geological, and other earth phenomena. (Formerly 3350:447)

**GEOG:449 Advanced Remote Sensing (3 Credits)**

Prerequisite: GEOG 447. Current research in remote sensing. Applications in study of human cultural and biophysical environment. Practice in planning, design, execution and interpretation of remote sensing studies. (Laboratory.) (Formerly 3350:449)

**GEOG:450 Development Planning (3 Credits)**

A study of planning concepts and techniques for developing countries, including growth and development, planning agencies, regional inequities and alternative approaches. (Formerly 3350:450)

**GEOG:460 Political Geography (3 Credits)**

Principles and theory in contemporary domestic and international political geographies. Emphasis on the changing local and global patterns of electoral politics, security, and diplomacy. (Formerly 3350:460)

**GEOG:481 Research Methods in Geography & Planning (3 Credits)**

Prerequisites: Completed a minimum of 12 credits in Geography and Planning. Investigation of library and archive resources. Emphasis on development of professional writing skills. (Formerly 3350:481)

**GEOG:483 Spatial Analysis (3 Credits)**

Prerequisite: Completed a minimum of 12 credits in Geography and Planning. Analysis of mapped statistical surfaces. Principles for use of map as model for statistical evidence, prediction, hypothesis testing. (Formerly 3350:483)

**GEOG:485 Internship in Geography & Planning (1-3 Credits)**

Prerequisite: Permission. (May be repeated for a total of six credits.) Supervised professional experience in planning agencies or related settings. Only three credits can be used toward a degree in Geography and Planning. (Formerly 3350:485)

**GEOG:489 Special Topics in Geography (1-3 Credits)**

(May be repeated) Selected topics of interest in geography (Formerly 3350:489)

**GEOG:490 Workshop in Geography (1-3 Credits)**

(May be repeated for a total of six credits) Group studies of special topics in geography. (Formerly 3350:490)

**GEOG:495 Soil & Water Field Studies (3 Credits)**

Properties, origins and uses of major soil and water regime landscapes. Stresses relationships between soil and the hydrological cycle, urbanization, suburbanization and agriculture. Field trips required. (Formerly 3350:495)

**GEOG:496 Field Research Methods (3 Credits)**

Prerequisite: Completed a minimum of 12 credits in Geography and Planning. Field work enabling student to become competent in collecting, organizing and analysis of data while carrying out field research projects. (Formerly 3350:496)

**GEOG:497 Regional Field Studies (1-3 Credits)**

Off-campus intensive study of geographic features of a region or regions through direct observations and travel using appropriate field study methods. (repeatable up to 6 credits) (Formerly 3350:497)

**GEOG:498 Honors Research in Geography (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: permission of department honors preceptor, honors student only. Exploration of research topics and issues in contemporary geography. Selection of research topic and writing of research paper in proper scholarly form under direction of faculty member. (Formerly 3350:498)



**GEOG:499 Career Assessment Seminar (2 Credits)**

Prerequisites: 24 credits in department or permission. Students demonstrate knowledge and skills acquired as geography majors through assessment testing and semester project, evaluate career options, and prepare resume and portfolio. (Formerly 3350:499)

## Geology (GEOL)

**GEOL:100 Earth Science (3 Credits)**

Introduction to earth science for non-science majors. Survey of earth in relation to its physical composition, structure, history, atmosphere, oceans; and relation to solar system and universe. (Formerly 3370:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**GEOL:101 Introductory Physical Geology (4 Credits)**

A study of the nature of earth, its materials, and the processes which continue to change it. Laboratory, field trips. (Formerly 3370:101)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**GEOL:102 Introductory Historical Geology (4 Credits)**

Prerequisite: GEOL 101 or [GEOL 104 and GEOL 211] or permission. Geologic history of earth, succession of major groups of plants and animals interpreted from rocks, fossils. Laboratory, field trips. (Formerly 3370:102)

**Gen Ed:** - Natural Science w/LAB

**GEOL:103 Natural Science: Geology (3 Credits)**

Study of basic principles and investigative techniques in various fields of geology with emphasis on relationship of geologic processes to society. (Formerly 3370:103)

**GEOL:104 Exercises in Physical Geology (1 Credit)**

Prerequisite: GEOL 100 or GEOL 103 or GEOL 200 or GEOL 211 or permission of geology adviser. Laboratory exercises on the identification of earth materials and the utilization and interpretation of geologic data and maps. (Formerly 3370:104)

**GEOL:105 Geology for Engineers (3 Credits)**

Introduction of physical geology to engineers, including mechanics, hydraulics and case studies that illustrate interactions between geology and engineering. Laboratory, field trips. (Formerly 3370:105)

**GEOL:121 Dinosaurs (1 Credit)**

Introductory course exploring the geological occurrence, mode of fossilization, evolutionary development, habits, and sudden extinction of the largest known land vertebrates. (Formerly 3370:121)

**Gen Ed:** - Natural Science

**GEOL:122 Mass Extinctions & Geology (1 Credit)**

Catastrophic changes in plants and animals have occurred throughout earth history. The causes of these extinctions have sparked debate which has enlivened the scientific world. (Formerly 3370:122)

**Gen Ed:** - Natural Science

**GEOL:125 Earthquakes: Why, Where, When? (1 Credit)**

Causes and effects of earthquakes, geological settings for earthquakes, seismic measurements, mechanical response of rock to stress, earthquake prediction and precautionary measures. (Formerly 3370:125)

**GEOL:126 Natural Disasters & Geology (1 Credit)**

A study of the earth's natural hazards including earthquakes, landslides, meteorites and tsunamis. (Formerly 3370:126)

**GEOL:127 The Ice Age & Ohio (1 Credit)**

Introductory course covering the effects of the ice age on the geology, vegetation, fauna and economy of Ohio. (Formerly 3370:127)

**GEOL:128 Geology of Ohio (1 Credit)**

Survey of Ohio's geologic setting and history, natural resources, landforms, and their significance in terms of human activity, from early settlement to future economy. (Formerly 3370:128)

**GEOL:129 Medical Geology (1 Credit)**

Abundance and distribution of trace elements in surface and groundwater, soils and rocks. The effects of trace elements to health through dose-response relationships. (Formerly 3370:129)

**GEOL:130 Geologic Record of Climate Change (1 Credit)**

Examines evidence for natural climate changes in geologic past and evaluates the role of modern society in influencing future climate.

(Formerly 3370:130)

**Gen Ed:** - Natural Science

**GEOL:132 Gemstones & Precious Metals (1 Credit)**

Introduction to minerals which form gemstones and precious metals. Topics to be covered include physical properties, geologic occurrences, and geographic locations of major deposits. (Formerly 3370:132)

**GEOL:133 Caves (1 Credit)**

Topics include: karst processes and the origin of caverns; carbonate depositional environments and the origin of limestones; environmental problems associated with karst landscapes (Formerly 3370:133)

**Gen Ed:** - Natural Science

**GEOL:134 Hazardous & Nuclear Waste Disposal (1 Credit)**

Disposition of hazardous waste in secured landfill site. Geologic factors which determine the selection of low-level and high-level radioactive waste sites. (Formerly 3370:134)

**GEOL:135 Geology of Energy Resources (1 Credit)**

Topics include the origin of hydrocarbon and coal deposits, global distribution of energy resources, environmental impact of energy consumption. (Formerly 3370:135)

**Gen Ed:** - Natural Science

**GEOL:137 Earth's Atmosphere & Weather (1 Credit)**

Structure and composition of the atmosphere; earth's radiation budget; atmospheric moisture, clouds and precipitation; weather systems and storms, severe weather, Ohio weather. (Formerly 3370:137)

**Gen Ed:** - Natural Science

**GEOL:139 Current Topics in Geology (1 Credit)**

(May be repeated for up to 2 credits.) Special topics offered once or only occasionally in areas where no formal course exists. (Formerly 3370:139)

**GEOL:140 Rocky Mountain National Parks (1 Credit)**

Badlands, Yellowstone, Grand Canyon and other Rocky Mountain National Parks will be used to illustrate basic principles of geology. (Formerly 3370:140)

**GEOL:141 Natural Environment of China (1 Credit)**

Introduction to geographical and geological environments of China. Geography and geology of geoparks will be presented and discussed as examples (Formerly 3370:141)

**GEOL:171 Introduction to the Oceans (3 Credits)**

Provides a basic introduction to the oceans. Topics include formation of the oceans, ocean circulation, waves and tides, marine animals, marine communities, and climate change. (Formerly 3370:171)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**GEOL:200 Environmental Geology (3 Credits)**

Analysis of geologic aspects of the human environment with emphasis on geologic hazards and environmental impact of society's demand for water, minerals and energy. (Formerly 3370:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**GEOL:201 Exercises in Environmental Geology I (1 Credit)**

Pre/Corequisite: GEOL 200. Recognition, and evaluation of environmental problems related to geology through laboratory exercises and demonstrations which apply concepts discussed in introductory geoscience courses. Laboratory. (Formerly 3370:201)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**GEOL:203 Exercises in Environmental Geology II (1 Credit)**

Prerequisite: GEOL 201. Pre/Corequisite: GEOL 200. Recognition and evaluation of environmental problems related to geology. (Continuation of 201) Laboratory. (Formerly 3370:203)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**GEOL:211 Introduction to Environmental Science (3 Credits)**

Interdisciplinary analysis of our relationship with nature and dependence upon the environment, with emphasis on evaluation of current environmental problems and rational solutions. (Formerly 3370:211)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**GEOL:230 Mineral Science (4 Credits)**

Prerequisite: GEOL 101 or [GEOL 104 and GEOL 211]. Corequisites: CHEM 151 and CHEM 152. Crystallography and chemistry of minerals. Topics also covered include physical, chemical and optical properties, occurrences and uses of the common non silicate minerals. Laboratory, field trips. (Formerly 3370:230)

**Gen Ed:** - Natural Science w/LAB

**GEOL:231 Silicate Mineralogy and Petrology (4 Credits)**

Prerequisites: [GEOL 101 and GEOL 230] or appropriate test score. Corequisites: CHEM 151 and CHEM 152. Physical and chemical properties, occurrence, and uses of common silicate minerals, followed by megascopic and microscopic identification, classification, and petrogenesis of rocks. Laboratory. (Formerly 3370:231)

**GEOL:301 Engineering Geology (3 Credits)**

Prerequisite: GEOL 101 or [GEOL 100 and GEOL 104] or [GEOL 104 and GEOL 211] or permission of instructor. Presents quantitative analysis of geologic features and processes and is supported by the study of case histories. Lecture, lab, field study, field trips. (Formerly 3370:301)

**GEOL:310 Geomorphology (3 Credits)**

Prerequisite: GEOL 101 or [GEOL 100 and GEOL 104] or [GEOL 104 and GEOL 211]. Study of landforms as a function of structure, process, and time. Laboratory, field trips. (Formerly 3370:310)

**GEOL:324 Sedimentation & Stratigraphy (4 Credits)**

Prerequisite: GEOL 102. Introduction to sedimentary processes and environments; stratigraphic principles and techniques. Hand specimens, thin sections, and sedimentary sequences studied. Laboratory, field trips. (Formerly 3370:324)

**GEOL:350 Structural Geology (4 Credits)**

Prerequisite: GEOL 101 or [GEOL 100 and GEOL 104] or [GEOL 104 and GEOL 211]. Origins and characteristics of folds, faults, joints and rock cleavage. Structural features of sedimentary, igneous and metamorphic rocks. Laboratory, field trips. (Formerly 3370:350)

**GEOL:355 Contemporary Issues in Environmental Science (3 Credits)**

Prerequisite: GEOL 100, GEOL 101, or GEOL 211. Advanced interdisciplinary analysis of our relationship with nature and dependence upon the environment, with emphasis on evaluation of current environmental problems and rational solutions. (Formerly 3370:355)

**GEOL:360 Paleobiology (4 Credits)**

Prerequisite: GEOL 101 or BIOL 111. Introductory course emphasizing morphology and evolution of major invertebrate groups with consideration of practical applications of paleontology. Laboratory, field trips. (Formerly 3370:360)

**GEOL:371 Oceanography (4 Credits)**

Prerequisite: GEOL 101. Study of the dominant feature of our planet, the oceans, emphasizing ocean basins evolution, and physical, chemical and biological processes in the various marine environments. Field trips. (Formerly 3370:371)

**GEOL:405 Archaeological Geology (3 Credits)**

Prerequisite: GEOL 101. Provides background in geologic principles and techniques relevant to archaeologists. Topics include stratigraphy, absolute dating, locality assessment, zooarchaeology, taphonomy, and remote sensing. Laboratory, field trips. (Formerly 3370:405)

**GEOL:407 Archaeogeophysical Survey (3 Credits)**

Prerequisites: ANTH 110 or GEOL 101 or GEOG 310. Advanced instruction in subsurface geophysical survey techniques in archaeology. Emphasis on magnetic gradiometry and electrical resistivity techniques, image processing and geological and archaeological interpretation. (Formerly 3370:407)

**GEOL:410 Regional Geology of North America (3 Credits)**

Prerequisites: GEOL 101 and GEOL 102. Examination of physiographic provinces of North America emphasizing structure, tectonic setting, stratigraphy and processes responsible for landforms in each province. Laboratory, field trips. (Formerly 3370:410)

**GEOL:411 Glacial Geology (3 Credits)**

Causes and effects of Pleistocene expansion of polar ice masses with emphasis on glacial deposits and world climatic changes. Laboratory, field trips. (Formerly 3370:411)

**GEOL:421 Coastal Geology (3 Credits)**

Prerequisites: GEOL 101 and GEOL 324, or permission of instructor. Study of the origins and evolution of coasts and coastal deposits with particular attention paid to the interaction of waves and currents with sediment, and the development of associated sedimentary features. Field trips. (Formerly 3370:421)

**Gen Ed:** - Complex Issues Facing Society

**GEOL:425 Principles of Sedimentary Basin Analysis (3 Credits)**

Prerequisites: GEOL 324 and GEOL 360, or permission. Primarily the study of depositional systems, regional and global stratigraphic cycles, and sedimentation and plate tectonics. (Formerly 3370:425)

**GEOL:432 Optical Mineralogy - Introductory Petrology (3 Credits)**

Prerequisites: GEOL 230 and GEOL 231. Optical techniques for identification, characterization, and classification of minerals and rocks using the petrographic microscope. Laboratory. (Formerly 3370:432)

**GEOL:433 Advanced Petrology (3 Credits)**

Prerequisite: GEOL 432. Petrogenesis of igneous, metamorphic and sedimentary rocks as determined by microscopic studies of textures and mineral assemblages using thin sections. Laboratory. (Formerly 3370:433)

**GEOL:435 Petroleum Geology (3 Credits)**

Prerequisite: GEOL 350. Natural occurrences of petroleum. Characteristics, origin, entrapment and exploration methods. Laboratory, field trips. (Formerly 3370:435)

**GEOL:436 Coal Geology (3 Credits)**

Prerequisites: GEOL 101 and GEOL 102. Origin, composition and occurrence of coal with emphasis on depositional environments, coalification processes, exploration, evaluation and exploitation. Laboratory, field trips. (Formerly 3370:436)

**GEOL:437 Economic Geology (3 Credits)**

Prerequisites: GEOL 231 and GEOL 350. Study of metallic and nonmetallic mineral deposits emphasizing paragenesis and exploration. Laboratory, field trips. (Formerly 3370:437)

**GEOL:441 Fundamentals of Geophysics (3 Credits)**

Prerequisites: MATH 223 or permission and PHYS 292. Fundamental concepts in solid earth geophysics, planetary physics, geodesy, and geomagnetism. Contributions of geophysics to recent major developments in geoscience. (Formerly 3370:441)

**GEOL:443 Rivers (3 Credits)**

Prerequisite: Permission of department. Study of the geologic and environmental aspects of river systems and related human impacts. Includes mandatory, 0 credit weekend field work. (Formerly 3370:443)

**Gen Ed:** - Complex Issues Facing Society

**GEOL:444 Environmental Magnetism (3 Credits)**

Prerequisite: GEOL 101 or permission. Introduction to the theory and methods of environmental magnetism and the application of environmental magnetism to interpreting sedimentary deposits. (Formerly 3370:444)

**GEOL:445 Environmental and Engineering Geophysics (3 Credits)**

Prerequisite: PHYS 261 or PHYS 291 or permission of instructor. Corequisite: PHYS 262 or PHYS 292 or permission of instructor. Basic subsurface exploration using ground penetrating radar and multi-channel electrical resistivity. Applications in environmental assessment, civil engineering and geotechnical engineering. Field trips. (Formerly 3370:445)

**GEOL:446 Exploration Geophysics (3 Credits)**

Prerequisites: MATH 223 and PHYS 292. Basic principles and techniques of geophysical exploration with emphasis on gravimetric, magnetic, seismic and electrical methods and application to geological problems. Laboratory, field trips. (Formerly 3370:446)

**GEOL:449 Borehole Geophysics (3 Credits)**

Basic principles and techniques of geophysical well logging with emphasis on electrical, radioactive, and sonic measures and their quantitative evaluation. Applications in oil, gas, and groundwater exploration. Laboratory. (Formerly 3370:449)

**GEOL:450 Advanced Structural Geology (3 Credits)**

Prerequisite: GEOL 350. Fundamental and advanced concepts of structural geology with emphasis on current and developing concepts. Laboratory, field trips. (Formerly 3370:450)

**GEOL:451 Field/Lab Studies in Environmental Science (3 Credits)**

Field/Laboratory inquiry into a specific interdisciplinary, environmental science topic. Students complete a research project involving collecting, analyzing and interpreting real world data. (May be repeated once.) (Formerly 3370:451)

**GEOL:452 Geology and Environmental Science Service Learning (1-3 Credits)**

Prerequisite: Permission of instructor. Team service-learning project that involves collection, organization, analysis, and presentation of data. Field trips. (May be repeated for a maximum of four credits.) (Formerly 3370:452)

**Gen Ed:** - Complex Issues Facing Society

**GEOL:453 Geology Field Camp I (3 Credits)**

Prerequisites: GEOL 101, GEOL 102, and permission of instructor. Introduction to collection and interpretation of field data and construction of geologic maps. Student will bear trip expenses. (Formerly 3370:453)

**GEOL:454 Geology Field Camp II (3 Credits)**

Prerequisites: GEOL 231, GEOL 350, GEOL 453, and permission of instructor. Advanced techniques and methods of field geology necessary for detailed geological maps and interpretation. Student will bear trip expenses. (Formerly 3370:454)

**GEOL:455 Field Studies in Geology (1-3 Credits)**

Field trip course emphasizing aspects of geology not readily studied in Ohio. Includes pre-trip preparation and post-trip examination. Student will bear trip expenses. (May be repeated for a total of four credits.) (Formerly 3370:455)

**GEOL:462 Macroevolution (3 Credits)**

Prerequisites: GEOL 360 or BIOL 111. Provides a comprehensive treatment of macroevolutionary theory, focusing on evidence from the fossil record. Topics include genetics, speciation, development, and fossil lineages. Laboratory. (Formerly 3370:462)

**GEOL:463 Environmental Micropaleontology (3 Credits)**

Prerequisite: GEOL 360. Introduction to techniques of micropaleontology as proxy indicators for environmental and climate change. Laboratory. Field trips. (Formerly 3370:463)

**GEOL:465 Geomicrobiology (3 Credits)**

Prerequisites: CHEM 151 and CHEM 153. A course addressing the physiology, ecology, and activities of microorganisms that mediate important biogeochemical processes, and the interdisciplinary approaches to studying them. (Formerly 3370:465)

**GEOL:470 Geochemistry (3 Credits)**

Prerequisites: GEOL 101, GEOL 230, CHEM 151, and CHEM 152. Application of chemical principles to the study of geologic processes. Laboratory, field trips. (Formerly 3370:470)

**GEOL:472 Stable Isotope Geochemistry (3 Credits)**

Prerequisites: GEOL 101, GEOL 102, CHEM 151, CHEM 152, CHEM 153, and MATH 221. Application of stable isotope geochemistry to the study of hydrologic and carbon cycles, modern sedimentary environments, and the interpretation of sedimentary rocks. (Formerly 3370:472)

**GEOL:474 Groundwater Hydrology (3 Credits)**

Prerequisite: GEOL 101 or [GEOL 104 and GEOL 211]. Origin, occurrence, regimen and utilization of groundwater. Qualitative and quantitative presentation of geological and geochemical aspects of groundwater hydrology. Laboratory, field trips. (Formerly 3370:474)

**GEOL:480 Seminar in Environmental Studies (2 Credits)**

Discussion of specific environmental topic(s) from an interdisciplinary viewpoint; resource persons are drawn from the University and surrounding community. (Formerly 3370:480)

**GEOL:481 Analytical Methods in Geology (2 Credits)**

Prerequisites: GEOL 230 and GEOL 231. A survey of analytical methods used to solve geologic problems with emphasis on method selection, proper sample collection, analysis of data quality and data presentation. (Formerly 3370:481)

**GEOL:484 Geoscience Research & Consulting Methods (2 Credits)**

Prerequisite: Must be a Geology Department graduate student or senior major in Geology, or have permission of instructor. Methods for finding, gathering, managing, and evaluating geoscience information. Emphasis on finding data sources (including electronic), creating valid data sets, visualizing data. (Formerly 3370:484)

**GEOL:485 Individual Readings in Geology and Environmental Science (1-3 Credits)**

Prerequisite: Permission of instructor. (May be repeated for a total of 4 credits) Independent study and directed readings on a selected topic to fit an individual student's program. (Formerly 3370:485)

**GEOL:490 Workshop in Geology and Environmental Science (1-4 Credits)**

Group studies of special topics in geology and environmental science. May not be used to meet undergraduate major requirements in the Department. May be used for elective credit only. (May be repeated for up to 4 credits.) (Formerly 3370:490)

**GEOL:491 Internship in Geology and Environmental Science (1-3 Credits)**

Prerequisite: Permission of Department Chair. Supervised professional experience in geology or environmental science. Only three credits may be applied toward a degree in geology. (May be repeated for a total of six credits.) (Formerly 3370:491)

**GEOL:497 Honors Project in Geology (1-3 Credits)**

(May be repeated for a total of six credits.) Prerequisite: permission of department honors preceptor, Honors student only. Exploration of research topics and issues in geology. Selection of research topic and writing of research paper in proper scholarly form under direction of faculty member. (Formerly 3370:497)

**GEOL:498 Special Topics in Geology (1-3 Credits)**

Prerequisite: Permission of instructor. Special lecture courses offered once or only occasionally in areas where no formal course exists. (Formerly 3370:498)

**GEOL:499 Research Problems in Geology (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission. Independent research leading to the completion of a written paper or presentation at a professional meeting.

## German (GERM)

**GERM:101 Beginning German I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3530:101)

**GERM:102 Beginning German II (4 Credits)**

Sequential. Prerequisite: GERM 101 or equivalent. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3530:102)

**GERM:201 Intermediate German I (3 Credits)**

Sequential. Prerequisite: GERM 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3530:201)

**GERM:202 Intermediate German II (3 Credits)**

Sequential. Prerequisite: GERM 201 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3530:202)

**GERM:301 German Conversation & Composition (3 Credits)**

Prerequisite: GERM 202 or equivalent. Advanced composition using German models, special attention to words and idioms, development of oral expression and conversational ability. (Formerly 3530:301)

**GERM:302 Special Topics in German Conversation & Composition (3 Credits)**

Prerequisite: GERM 202 or equivalent or permission of instructor. May be repeated for credit. Special attention to development of oral expression and conversational ability. (Formerly 3530:302)

**GERM:310 Sex, Violence, & Terror in German Fairy Tales (3 Credits)**

Exploration of historical context of German fairy tales and interpretation plus modern significance of texts according to Jungian archetypal psychology. Readings and discussions in English. (Formerly 3530:310)

**GERM:403 Advanced German Conversation & Composition (3 Credits)**

Prerequisite: GERM 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure. (Formerly 3530:403)

**GERM:404 Advanced German Conversation & Composition (3 Credits)**

Prerequisite: GERM 302 or equivalent. Thorough analysis of syntax, morphology, phonetic principles and grammatical structure. (Formerly 3530:404)

**GERM:406 German Culture & Civilization (3 Credits)**

Prerequisite: GERM 302 or equivalent. Particular emphasis on customs, traditions, literary trends and artistic tendencies that constitute German's contribution to Western civilization. (Formerly 3530:406)

**GERM:407 German Culture & Civilization (3 Credits)**

Prerequisite: GERM 302 or equivalent. Particular emphasis on customs, traditions, literary trends and artistic tendencies that constitute German's contribution to Western civilization. (Formerly 3530:407)

**GERM:422 German: Special Topics in Advanced Language Skills or Culture or Literature (1-4 Credits)**

Prerequisite: GERM 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3530:422)

**GERM:497 Individual Reading in German (1-3 Credits)**

Prerequisite: GERM 202 and permission of department chair. (Formerly 3530:497)

**GERM:498 Individual Reading in German (1-3 Credits)**

Prerequisite: GERM 202 and permission of department chair. (Formerly 3530:498)

## Health Care Management (HCM)

### HCM:480 Introduction to Health-Care Management (3 Credits)

Prerequisites: Must be admitted to a 4-year degree granting college and hold at minimum a junior standing or higher (Students who are required to take 6500:301 or have completed MGMT 301 or equivalent are ineligible to take this course for credit). Introductory course for health professionals covering principles and concepts of management applied to health services organizations. For those registered for graduate credit, a major paper is required. (Formerly 6500:480)

### HCM:482 Health Services Operations Management (3 Credits)

Prerequisites: Must be admitted to a major in a 4-year degree granting college, [upper level standing and MGMT 301 or HCM 480 or equivalents], or [graduate standing and HCM 681 or equivalent]. (Students who have completed SCM 330 are ineligible to take this course for credit). Application of production and operations management concepts and techniques in health services organizations. (Formerly 6500:482)

### HCM:485 Special Topics: Health Services Administration (1-3 Credits)

Prerequisite: Must be admitted to a major in a 4-year degree granting college. Special topics in health services administration (e.g., management) focusing on historical and/or contemporary managerial organizational and/or policy/strategy issues as related to health-care organizations and health-care systems. Separate topics may be repeated for a maximum of six credits. For those registered for graduate credit, a major research paper is required. (Formerly 6500:485)

## Health Education (HEDU)

### HEDU:101 Personal Health (2 Credits)

This course applies the current principles and facts pertaining to healthful, effective living, personal health problems, and needs of the student. Two hours lecture. (Formerly 5570:101)

### HEDU:201 Foundations in Health Education (3 Credits)

Prerequisite: HEDU 101. History and philosophy of health education as a discipline; professionalism and administration in health education are considered. (Formerly 5570:201)

### HEDU:202 Stress Management (3 Credits)

Prerequisite: Sophomore standing. Course provides knowledge about the relationship between stress, physiological, psychological illness and disease, also how to manage stress in life activities. (Formerly 5570:202)

### HEDU:322 Current Topics in Health Education (3 Credits)

Prerequisites: HEDU 101, HEDU 201, and HEDU 420. Skills needed to do research, teach, and present current health education topics in a factual and comfortable manner in schools and community. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:322)

### HEDU:375 Program Planning and Evaluation (2 Credits)

Prerequisites: HEDU 101 and HEDU 201. This course addresses the process of planning and evaluating health education programs within the school and community. (Formerly 5570:375)

### HEDU:395 Field Experience: Health Education (1-3 Credits)

Prerequisite: Permission of the advisor. On-site field experience will be conducted in an area related to pre-K-12 health education under the supervision of a faculty member. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:395)

### HEDU:400 Environmental Aspects of Health Education (3 Credits)

Prerequisite: Major or minor in health education and admission to the Sport Science and Wellness Program. A study of the interrelationships of ecosystems and a healthful environment. This course investigates many aspects of the environment and their influences upon the quality of human life. Students must be in the College of Education to take 300/400 level courses. (Formerly 5570:400)

### HEDU:420 Community and Personal Health (3 Credits)

Introduction of current public and personal health issues. Organizations and their roles in public and personal health programs. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:420)

### HEDU:421 Comprehensive School Health (3 Credits)

Prerequisites: HEDU 101, HEDU 201, and HEDU 320. This course explains and presents comprehensive school health curricula for pre-k to 12. The three components of a comprehensive school health program are presented. (Formerly 5570:421)

### HEDU:423 Methods & Materials Teaching Health Education (3 Credits)

Prerequisites: HEDU 101, HEDU 201, HEDU 420, EDFN 210, EDFN 211, EDCI 310, EDCI 311. Planning, organization, use of instructional resources and delivery of health education content and teaching process (pre K-12). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:423)

### HEDU:430 Senior Honors Project: Health Education (1-6 Credits)

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and admission to the Sport Science and Wellness Program. Carefully defined individual study demonstrating originality and sustained inquiry. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:430)

### HEDU:460 Practicum in Health Education (2-6 Credits)

Prerequisite: Permission of the advisor. The practicum in Health Education is an on-site participation in a community health organization, agency or resource. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5570:460)

### HEDU:497 Independent Study: Health Education (1-2 Credits)

Prerequisite: Permission of the advisor. Analysis of a specific topic related to a current problem in health education. May include investigative procedure, research or concentrated practical experience. (Formerly 5570:497)

## History (HIST)

### HIST:200 Empires of the Ancient World (3 Credits)

Comparative study of the formation of ancient empires of the Afro-Eurasian world up to the rise of Islam. (Formerly 3400:200)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities; - Global Diversity

### HIST:210 Humanities in the Western Tradition from Ancient Times to 1500 (3 Credits)

Prerequisites: [ENGL 112 or ENGL 114 or ENGL 222] and sophomore or greater standing. Introduction to the human condition as manifested in ideas, religions, visual arts and music of Western civilization from ancient Mesopotamia and Egypt through the Italian Renaissance. Can be used to meet major requirements in History. (Formerly 3400:210)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**HIST:211 Humanities in the Western Tradition II (3 Credits)**

Prerequisite: HIST 210. Introduction to the human condition in the past as manifested in the ideas, religions, visual arts and music of Western civilization from the Protestant Reformation to the Present. Cannot be used to meet major requirements in History. (Formerly 3400:211)

**HIST:221 Humanities in the World since 1300 (3 Credits)**

Prerequisites: ENGL 112 or ENGL 114 or ENGL 222 and sophomore standing. Introduction to the human condition as expressed in the ideas, religions, visual arts, and music of the world since 1300. Cannot be used to meet major requirements in History. (Formerly 3400:221)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities; - Global Diversity

**HIST:250 U.S. History to 1877 (3 Credits)**

Historical survey from the Age of Discovery and North American colonization through the creation of the United States to the Civil War and Reconstruction. (Formerly 3400:250)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**HIST:251 U.S. History since 1877 (3 Credits)**

Survey of United States history from the end of Federal Reconstruction to the present. (Formerly 3400:251)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**HIST:285 World Civilizations: China (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:285)

**HIST:286 World Civilizations: Japan (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:286)

**HIST:287 World Civilizations: Southeast Asia (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:287)

**HIST:288 World Civilizations: India (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:288)

**HIST:289 World Civilizations: Middle East (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:289)

**HIST:290 World Civilizations: Africa (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:290)

**HIST:291 World Civilizations: Latin America (2 Credits)**

Prerequisite: Completion of [ENGL 112 or ENGL 114 or ENGL 222] or equivalent and a minimum of sophomore or greater standing. Courses 285 through 291 are designed to provide a basic knowledge of past human experiences and an understanding of current events in key areas of the non-Western world. These courses cannot be used to meet major requirements in History. (Formerly 3400:291)

**HIST:292 Global Societies: Africa (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in both World Civ: Africa and Global Societies: Africa. This course surveys the major social, economic, political, and cultural transformations in Africa, and explores interconnected global histories in on regional context. (Formerly 3400:292)

**Gen Ed:** - Global Diversity

**HIST:294 Global Societies: India (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in World Civilization and Global Societies. This course surveys the major social, economic, political, and cultural transformations in India, and explores interconnected global histories in one regional context. (Formerly 3400:294)

**Gen Ed:** - Global Diversity

**HIST:295 Global Societies: Japan (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in World Civilization: Japan and Global Societies: Japan. This course surveys the major social, economic, political and cultural transformations in Japan, and explores interconnected global histories in its regional context. (Formerly 3400:295)

**Gen Ed:** - Social Science; - Global Diversity

**HIST:296 Global Societies: Latin America (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in both World Civilizations: Latin America and Global Societies: Latin America. This course surveys the major social, economic, political, and cultural transformations in Latin America since 1492, and explores interconnected global histories in a regional context. (Formerly 3400:296)

**Gen Ed:** - Social Science; - Global Diversity

**HIST:297 Global Societies: Middle East (3 Credits)**

Prerequisites: Sophomore or greater standing and no credit in both World Civilizations: Middle East and Global Societies: Middle East. This course surveys the major social, economic, political, and cultural transformations in the Middle East, and explores interconnected global histories in a regional context. (Formerly 3400:297)

**Gen Ed:** - Social Science; - Global Diversity

**HIST:300 Imperial China (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. Selective study of institutional, intellectual, political and artistic developments in Chinese civilization from antiquity to 18th century. Emphasis on general features of traditional Chinese culture. (Formerly 3400:300)

**HIST:301 Modern China (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. This course examines the domestic and global roots of China's 20th century modernization and their relationship to the challenges China now faces. (Formerly 3400:301)

**HIST:303 Modern East Asia (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Exploration of domestic and global factors that shaped modern East Asia (Japan, China, Korea and Vietnam). (Formerly 3400:303)

**HIST:307 The Ancient Near East (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. Mesopotamia, Egypt; Israel, and neighbors to Persian Empire. (Formerly 3400:307)

**HIST:308 Greece (3 Credits)**

Prerequisite: Minimum of 32 credits or permission of the instructor. Minoans and Mycenaeans; classical Greece to triumph of Macedon. (Formerly 3400:308)

**HIST:310 Historical Methods (3 Credits)**

Introduction to historical research and writing. Required for history major. (Formerly 3400:310)

**HIST:313 Eastern Roman Empire (324-1453) (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Byzantine culture and history from 324 to the fall of 1453. (Formerly 3400:313)

**HIST:317 Roman Republic (3 Credits)**

Prerequisite: Sophomore or greater standing. An intensive survey of the Roman Republic. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like. (Formerly 3400:317)

**HIST:318 Roman Empire (3 Credits)**

Prerequisite: Minimum of 32 credits or permission of the instructor. An intensive survey of the Roman Empire. Attention will be given to the nature of the source material, ancient historiography, text criticism and the like. (Formerly 3400:318)

**HIST:319 Medieval Europe, 500-1200 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Migration of peoples, Carolingian revival, renewed invasions; social, economic and intellectual stirrings lead to birth of Europe. (Formerly 3400:319)

**HIST:320 Medieval Europe, 1200-1500 (3 Credits)**

Prerequisite: Sophomore or greater standing. Middle Ages and the middle class; economic and political change, international wars, social unrest and religious crosscurrents. (Formerly 3400:320)

**HIST:321 Europe: Renaissance to Religious Wars, 1350-1610 (3 Credits)**

Prerequisite: A minimum academic standing of Sophomore or higher. Survey of the social, political, economic, religious, and intellectual history of Early Modern Europe from the Italian Renaissance to the early 17th century. (Formerly 3400:321)

**HIST:322 Europe: Absolutism to Revolution, 1610-1789 (3 Credits)**

Prerequisite: Sophomore standing or higher. Survey of the social, political, economic, religious, and intellectual history of Early Modern Europe from the Thirty Years War to the French Revolution. (Formerly 3400:322)

**HIST:323 Europe from Revolution to World War, 1789-1914 (3 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. Surveys the political, economic, social, and cultural history of modern Europe from the French Revolution to the First World War. (Formerly 3400:323)

**HIST:324 Europe from World War I to the Present (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. A survey of European political and social history from World War I to the present. (Formerly 3400:324)

**Gen Ed:** - Global Diversity

**HIST:325 Women in Modern Europe (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. A survey of the history of women in Europe since 1500, with emphasis on their roles and the changes attendant on modernization. (Formerly 3400:325)

**HIST:330 Modern Africa (3 Credits)**

This course will introduce major themes in modern African history, from the trans-Atlantic, slave trade, through the colonial and post-independence periods. (Formerly 3400:330)

**HIST:335 Russia to 1801 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of Russian history from Kievan period to death of Paul I, emphasizing development of autocratic government, Russian culture, reigns of Peter and Catherine. (Formerly 3400:335)

**HIST:336 Russia Since 1801 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of 19th and 20th centuries. Special emphasis on problems of modernization, the revolution and development of communism. (Formerly 3400:336)

**HIST:337 France from Napoleon to DeGaulle (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Combines a study of Napoleon and DeGaulle with a survey of the political, economic, social, and cultural/artistic trends of modern French history. (Formerly 3400:337)

**Gen Ed:** - Global Diversity

**HIST:338 England to 1688 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of English history from the Anglo-Saxon conquest to the Revolution of 1688. Medieval and early modern institutions, social and cultural life. (Formerly 3400:338)

**HIST:339 England Since 1688 (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. Survey of English history from 1688 to the present. The reform of English institutions and life, modernization of the economy, the welfare state, society and war. (Formerly 3400:339)

**HIST:340 Selected Topics in History (3 Credits)**

Prerequisite: A minimum academic standing of Sophomore or higher. Includes experimental offerings such as those crossing subject of chronological lines, and subjects not listed in this General Bulletin. See departmental office for current subject. (Formerly 3400:340)

**HIST:341 Islamic Fundamentalism & Revolution (3 Credits)**

Prerequisite: Sophomore or greater standing. The political and socio-economic roots of Islamic reformism and militancy in the Middle East and North Africa since the 1960s. (Formerly 3400:341)

**HIST:342 The Crusades through Arab Eyes (3 Credits)**

Prerequisite: Sophomore or greater standing. Political and military struggles, diplomatic practices and intellectual traditions of the Medieval Islamic/Arab world and the Western crusaders. (Formerly 3400:342)

**HIST:345 Native North American History (3 Credits)**

Prerequisite: Minimum of 32 credits. The histories of Native Americans from Columbus to the present, emphasizing a half-millennium of adaptive responses to the presence of Europeans in North America. (Formerly 3400:345)

**HIST:350 U.S. Women's History (3 Credits)**

Prerequisite: a minimum of 32 credits History of American women's experiences and exploration of gender as a changing structure shaping American life from the colonial period through the 20th century. (Formerly 3400:350)

**Gen Ed:** - Domestic Diversity

**HIST:351 Global History: Encounters and Conflicts (4 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. This course explores historical encounters between societies to explain the development of the integrated economic, political, and cultural systems presently characterizing the modern world. (Formerly 3400:351)

**HIST:352 The American West (3 Credits)**

Prerequisite: A minimum of 32 credits. Examination of westward movement from revolution to closing of frontier; types of frontiers; impact of west on nation's development. (Formerly 3400:352)

**HIST:354 American Immigration (3 Credits)**

Prerequisite: A minimum of 32 credits. Examination of European migrants to American colonies and United States, their reasons for leaving Europe and coming to America, and their experience after arrival. (Formerly 3400:354)

**HIST:355 American Religious History (3 Credits)**

Prerequisite: A minimum of 32 credits. Addresses critical issues and figures in American religious history from the colonial era to present, including ways ideas have influenced political and judicial discourse. (Formerly 3400:355)

**HIST:356 Sports in American History Since 1865 (3 Credits)**

Prerequisite: A minimum of 32 credits. An examination of the reciprocal relationship between sports and various institutions of society: culture, religion, politics, education, economics, race, ethnicity, diplomacy and gender. (Formerly 3400:356)

**HIST:358 Urban America (3 Credits)**

Prerequisite: A minimum of 32 credits. This course looks at the significance of cities and urban development in shaping American society. (Formerly 3400:358)

**HIST:360 United States Military History (3 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. Survey of United States military history from the colonial era to the present. (Formerly 3400:360)

**HIST:361 African American History, 1492-1877 (3 Credits)**

Prerequisite: Sophomore or greater standing. This course focuses on African American history, culture and heritage from 1492 to 1877. (Formerly 3400:361)

**HIST:362 African American History, 1877 to Present (3 Credits)**

Prerequisite: Sophomore or greater standing. This course focuses on African American history, culture and heritage from 1877 to present. (Formerly 3400:362)

**HIST:363 African American Men's History and Studies (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. This course will examine the experiences of African American Men from historical, socio-economic, philosophical, religious/spiritual, and psychological standpoints. (Formerly 3400:363)

**HIST:371 Selected Topics: North American History (3 Credits)**

Prerequisite: Sophomore or greater standing. Selected topics addressing the history of North America (from the Rio Grande to the Arctic). Contact the department office concerning specific topics. (Formerly 3400:371)

**HIST:372 Selected Topics: European History (3 Credits)**

Prerequisite: a minimum of 32 credits or permission of the instructor. Selected topics addressing European history from the collapse of the Roman Empire to the present. Contact the department office concerning specific topics. (Formerly 3400:372)

**HIST:373 Selected Topics: Other (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. Selected historical topics on Africa, Asia, Latin America, the ancient world and world history. Contact the department office concerning specific topics. (Formerly 3400:373)

**HIST:377 History of Women in Latin America (3 Credits)**

Prerequisite: A minimum of Sophomore or greater standing or permission of the instructor. Survey of changes and continuities in the lives of Latin American women since the colonial period; emphasis on gender, race, class in shaping women's experiences. (Formerly 3400:377)

**Gen Ed:** - Global Diversity

**HIST:378 Spanish Conquest and Colonization of the Americas (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Course examines the conquest, colonization, and three-centuries-long Spanish rule in Latin America since 1492. Emphasis on culture, power inequalities, issues of identity, and memory. (Formerly 3400:378)

**Gen Ed:** - Global Diversity

**HIST:379 Modern Latin America (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. This course examines the history of Latin America during the national period, ca. 1820s to the present. Focus on politics, economic systems, and nation-state formation. (Formerly 3400:379)

**HIST:381 History of Canada (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. Survey of Canadian history from the age of the explorers to the present. Special emphasis will be placed on the history of French-Canadians, on economic development and on Canadian-American relations. (Formerly 3400:381)

**HIST:382 The Vietnam War (3 Credits)**

Prerequisite: Sophomore or greater standing or permission of the instructor. An examination and evaluation of all aspects of the war in Vietnam, political, military, diplomatic and economic, including its impact domestically then and later. (Formerly 3400:382)

**HIST:392 Internship in History (1-3 Credits)**

Prerequisites: 64 credits, History major or minor, prior completion of 16 credits in History (not including Humanities in the Western Tradition or World Civilizations), minimum 2.5 history GPA, and permission of instructor. Individual field experience in applied history. May be repeated up to 6 credits; 4 credits to apply to the 32 credit minimum for a history major. (Formerly 3400:392)



**HIST:395 Modern Iran (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. This course on modern Iran explores the country's history of nationalism, identity, gender, and religion, and its place in world history. (Formerly 3400:395)

**Gen Ed:** - Global Diversity

**HIST:396 Iraq in Historical Perspective (3 Credits)**

Prerequisite: A minimum of 32 credits or permission of the instructor. This course will offer a complex and nuanced look into the history of Iraq and will situate current events firmly in their historical context. (Formerly 3400:396)

**HIST:397 Individual Study in History (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission. For individual study or research in history, including special projects, summer study tours or specialized training. (Formerly 3400:397)

**HIST:400 Gender and Culture in China (3 Credits)**

Prerequisite: A minimum of Sophomore standing or higher, or permission of the instructor. This course examines the dynamic between gender and culture from late imperial to post-socialist China, with connections drawn to public policies in different periods. (Formerly 3400:400)

**HIST:401 Japan & the Pacific War, 1895-1945 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. The rise of Japanese militarism, Japan's drive to create an empire in East and Southeast Asia, 1895-1945, and its role in the Pacific War, 1937-45. (Formerly 3400:401)

**HIST:404 Studies in Roman History (3 Credits)**

Prerequisite: Minimum of 48 credits or permission of the instructor. Concentrated investigation of selected topics, such as imperialism in middle and late Republic, the age of Augustus, or the fall of western Empire. (Formerly 3400:404)

**HIST:405 War and Politics in the Renaissance (3 Credits)**

Prerequisite: Senior standing. This course will explore the theory and practice of politics and diplomacy during the European Renaissance. We will examine such topics as the rise of the modern nation/state, the origins of modern diplomatic practice, the development of European imperialism, and the impact of major political thinkers such as Machiavelli and More. We will also examine the politics behind the various wars of the period, particularly the religious wars in the Reformation. We will begin in early Renaissance Italy, and then turn to the rise of Atlantic powers such as Spain, England and the Netherlands. (Formerly 3400:405)

**HIST:409 Imperial Spain, 1469-1700 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course examines the rise and fall of Spain as the first world power. It will cover Spanish political, cultural, and social history, 1469-1700. (Formerly 3400:409)

**HIST:410 History and Film (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Repeatable once with permission. Examines films as historical experiences, historical events, and artifacts of history. Themes and foci will vary. (Formerly 3400:410)

**HIST:416 Modern India (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. History of the Indian subcontinent from c. 1500 with emphasis on India society and culture, British imperialism, and the emergence of Indian nationalism. (Formerly 3400:416)

**HIST:417 Latin America and the United States (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Inter-American relations viewed from Latin American and U.S. perspectives; U.S. policy, imperialism, economic and cultural influences. (Formerly 3400:417)

**HIST:418 History of Brazil Since 1500 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Survey of the economic, political, social and cultural history of Brazil since 1500. (Formerly 3400:418)

**HIST:424 The Renaissance (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. The age of transition from the Middle Ages to modern times (1350-1600). Special emphasis on intellectual trends, the development of humanism, and the fine arts. (Formerly 3400:424)

**HIST:425 The Reformation (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. Europe in 16th century; its religious, cultural, political and diplomatic development, with special emphasis on Protestant, Anglican and Catholic reformations. (Formerly 3400:425)

**HIST:429 Europe in the French Revolutionary Era-1789-1815 (3 Credits)**

Prerequisite: a minimum of Junior standing or permission of the instructor. Development of Revolution; Napoleon's regime and satellites. (Formerly 3400:429)

**HIST:438 Nazi Germany (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course covers the social, economic, and political history of Germany from World War I to 1945 with emphasis on the Third Reich. (Formerly 3400:438)

**HIST:440 Tudor & Stuart Britain, 1485-1714 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. An examination of the development of, and increasing links between the British kingdoms in the early modern period, with emphasis on culture, politics, and religion. (Formerly 3400:440)

**HIST:443 Churchill's England (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. An examination of the changes that Britain experienced during the life of Winston Churchill, 1874-1965. Emphasis is on cultural, social, and political developments. (Formerly 3400:443)

**HIST:451 Colonial American History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course covers the history of colonial America from the first European contact in the Americas in 1492 to the onset of the American Revolution. (Formerly 3400:451)

**HIST:452 American Revolutionary Era (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. The struggle for the rights of colonists and independence; the impact of war on American society and the creation of republican institutions. (Formerly 3400:452)

**HIST:453 The Early American Republic (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. The evolution of the American republic from its early beginnings after the American Revolution to the antebellum era. Emphasis upon political, social, and cultural developments. (Formerly 3400:453)

**HIST:454 Civil War & Reconstruction, 1850-1877 (4 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Sectionalism, slavery and the causes of the Civil War; wartime activities of the Union and Confederacy; leading personalities; problems of reconstruction and the new Union. (Formerly 3400:454)

**HIST:455 Origins of Modern America, 1877-1917 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. United States from Reconstruction Era to World War I (1877-1920); emphasis on political responses to rise of an industrialized-urbanized society, the populist and progressive movements. (Formerly 3400:455)

**HIST:456 America in World Wars & Depression, 1917-1945 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. World War I and Versailles; the 1920s, the Great Depression and the New Deal; World War II. (Formerly 3400:456)

**HIST:457 The United States since 1945 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Nuclear age, cold war, foreign policy and domestic affairs to present. Social, political, constitutional, diplomatic, cultural and economic changes since 1945. (Formerly 3400:457)

**HIST:461 The United States as a World Power (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. The course analyzes the emergence and functioning of the United States as a world power, with particular emphasis on the 20th century. (Formerly 3400:461)

**HIST:463 United States Constitutional History (3 Credits)**

Prerequisite: A minimum of 48 credits or permission of the instructor. This course examines the evolution of constitutional government from the drafting of the U.S. Constitution (1787) to present. (Formerly 3400:463)

**Gen Ed:** - Complex Issues Facing Society

**HIST:465 American Economy Since 1900 (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Survey of economic developments since 1900; topics include agriculture, business and labor. Special emphasis on role of big business and evolution of monetary and fiscal policy. (Formerly 3400:465)

**HIST:467 History of American Pop Culture (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Historical analysis of mass cultural phenomena and the social experiences associated with mass technologies that transformed modern America life in the 19th and 20th centuries. (Formerly 3400:467)

**HIST:468 African-American Social & Intellectual History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Examination of black thought and activities reflective of African-American culture, conditions facing black people within America and efforts toward coordinated black activity. (Formerly 3400:468)

**HIST:469 African-American Women's History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Study of black American women's lives from colonial times to the present featuring autobiographical. Fictional and secondary works authored by black women. (Formerly 3400:469)

**HIST:470 Ohio History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Political, social, economic and intellectual history of Ohio, with special emphasis on Ohio's relationship to Old Northwest and to the nation. (Formerly 3400:470)

**HIST:471 American Environmental History (3 Credits)**

Prerequisite: a minimum of 48 credits completed or permission of the instructor. Utilization, conservation of natural resources from beginnings of American society to present; combination of economic, technological history of extensive treatment of public policy, environmental issues. (Formerly 3400:471)

**HIST:472 Empire, Genocide, and Mass Violence (3 Credits)**

Prerequisite: A minimum of 48 credits or permission of the instructor. This course explores the histories of genocide and other types of mass violence, as well as the debates surrounding them. Focusing on examples that begin with the genocide of indigenous peoples in the Americas and Australia and concluding with current cases, we will explore the role of modern identity politics, imperialism, and ideology in mass murders and genocides and will consider analyses of case studies from multiple disciplinary perspectives. We will conduct this class as a seminar, which means that we engage in extensive reading (as well as writing) assignments and regular participation from students in discussions. (Formerly 3400:472)

**Gen Ed:** - Complex Issues Facing Society

**HIST:475 Mexico (3 Credits)**

History of Mexico from Indian civilizations to present with emphasis on relations with United States; social and political ramifications of the 20th Century Mexican revolution. (Formerly 3400:475)

**HIST:476 Central America & the Caribbean (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Selected aspects of the histories of Central American and Caribbean countries with emphasis on populist and peasant movements, political reform, social revolution, economic and under development, and relations with the United States. (Formerly 3400:476)

**HIST:483 History in Video Games (3 Credits)**

Prerequisite: Sophomore standing. Examines the presentation of history in video games analyzing them for accuracy, bias, structural limitations, and utility as teaching tools. (Formerly 3400:483)

**HIST:484 Museums and Archives (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course will focus on the work of history museums, historical societies and historic house museums and archives. (Formerly 3400:484)

**HIST:485 History, Communities, and Memory (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Course examines the interactions between the work of academic historians and the public in areas such as local history, monuments, oral history, film and the Internet. (Formerly 3400:485)

**HIST:487 Science and Technology in World History (3 Credits)**

Prerequisite: Completion of a minimum of 48 credits or higher. This course examines the development and diffusion of science and technology in human history, its impact on society, culture, and daily life. (Formerly 3400:487)

**HIST:489 Ottoman State and Society (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Explores political, economic, and social dynamics of one of the world's most enduring and expansive multiethnic empires. (Formerly 3400:489)

**Gen Ed:** - Global Diversity

**HIST:491 Honors Seminar in History (3 Credits)**

Prerequisite: Permission of department head or instructor. Selected readings; writing of research paper. For student seeking to graduate with honors in history and for student in Honors Program. (Formerly 3400:491)

**HIST:492 Honors Project in History (1-3 Credits)**

Prerequisite: 64 credits. An individual research project relevant to history, supervised by a member of the Department of History, culminating in an undergraduate thesis. (Formerly 3400:492)

**HIST:493 Special Studies: North American History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Special studies in the history of North America (Rio Grande to Arctic). See department office for information on particular offerings. (Formerly 3400:493)

**HIST:494 Workshop in History (1-3 Credits)**

(May be repeated) Group studies of special subjects pertaining to history. May be used for elective credit only. May not be used to meet undergraduate or graduate major requirements in history. (Formerly 3400:494)

**HIST:495 Special Studies: European History (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Special studies in European history from the fall of the Roman Empire to the present. See department office for information on particular offerings. (Formerly 3400:495)

**HIST:496 Special Studies in History: Other (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. Special studies in the history of Latin America, Asia, Africa or the Pacific. See department office for information on particular offerings. (Formerly 3400:496)

**HIST:498 Race, Nation, and Class in the Middle East (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course analyzes identity politics and the development of the ideas of race, nation, and class in the Middle East from a historical perspective. (Formerly 3400:498)

**HIST:499 Women and Gender in Middle Eastern Societies (3 Credits)**

Prerequisite: a minimum of 48 credits or permission of the instructor. This course explores the multi-layered processes and dimensions, including texts, cultural values and practices, institutions, and events, which have shaped women's experiences in the Middle East. (Formerly 3400:499)

Gen Ed: - Global Diversity

## Honors College (HONOR)

**HONOR:250 Honors Colloquium: Humanities (2 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in humanities. (Formerly 1870:250)

**HONOR:270 Honors Colloquium: Natural Science (2 Credits)**

Prerequisite: admission to Williams Honors College Interdisciplinary colloquium on important issues in natural sciences. (Formerly 1870:270)

**HONOR:340 Honors Colloquium: Social Science (3 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in social sciences. (Formerly 1870:340)

**HONOR:350 Honors Colloquium: Humanities (3 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in humanities. (Formerly 1870:350)

**HONOR:360 Honors Colloquium: Social Science (2 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in social sciences. (Formerly 1870:360)

**HONOR:370 Honors Colloquium: Natural Science (3 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in natural sciences. (Formerly 1870:370)

**HONOR:450 Honors Colloquium: Humanities (2 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in humanities. (Formerly 1870:450)

**HONOR:460 Honors Colloquium: Social Science (2 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in social sciences. (Formerly 1870:460)

**HONOR:470 Honors Colloquium: Natural Science (2 Credits)**

Prerequisite: admission to Williams Honors College. Interdisciplinary colloquium on important issues in natural sciences. (Formerly 1870:470)

## Human Resource Management (HRM)

**HRM:341 Human Resource Management (3 Credits)**

Prerequisite: 48 completed credit hours. Principles, policies, and practices in administering functions of recruiting, selecting, training, compensating, and appraising human resources of organizations. (Formerly 6500:341)

**HRM:342 Employee and Labor Relations (3 Credits)**

Prerequisite: 64 completed credit hours. Pre/Corequisite: HRM 341. Analysis of management, union and employee objectives, attitudes and strategy, as they affect conduct of business and economy. Stress placed on group assigned readings and reports. (Formerly 6500:342)

**HRM:350 Fundamentals of Enterprise Resource Planning (3 Credits)**

Prerequisites: ACCT 250 and 48 completed credit hours. The enterprise wide process of decreasing operating costs, rationalizing the supply chain, improving management control, and decreasing cycle time by implementing ERP based solutions (Formerly 6500:350)

**HRM:441 Training and Development (3 Credits)**

Prerequisites: Admission to a major in a 4-year degree granting college and HRM 341. Comprehensive study of employee training and development methods and practices including performance analysis, design, development, implementation and evaluation (Formerly 6500:441)

**HRM:442 Compensation Management and Reward Systems (3 Credits)**

Prerequisites: Admission to a major in a 4-year degree granting college, junior standing and HRM 341. This course focuses on the development, implementation, and assessment of a business firm's compensation and reward system. (Formerly 6500:442)

**HRM:443 Human Resources Selection & Staffing (3 Credits)**

Prerequisites: Upper level standing, admission to a major in a 4-year degree granting college, and HRM 341. Advanced study of selection and staffing within business organizations. Emphasis on current research and practice. Activities include projects, case studies, interaction with human resource professionals. (Formerly 6500:443)

**HRM:458 Special Topics in Managerial Arbitration, Mediation & Conciliation (1-3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level or graduate standing and [MGMT 301 or HRM 600 or equivalent]. Study of the various methods and mechanisms by which management can understand and deal with internal and external conflict. Six hour limit. (Formerly 6500:458)

**HRM:471 Management Consulting Project (3 Credits)**

Prerequisites: Admitted to the Human Resources Management major, MGMT 302, ISM 310, HRM 342, HRM 442, and HRM 443. Students develop skills in field-based management problem solving, project management, and requirements analysis under conditions of uncertainty in a collaborative interdisciplinary team environment. (Formerly 6500:471)

**HRM:478 Human Resource Simulation (1 Credit)**

Prerequisite: HRM 341. Simulation of human resource practices through computerized or experiential exercises. (Formerly 6500:478)

**HRM:487 Internship in Human Resources (3 Credits)**

Prerequisite: Permission of department chair or designated faculty member. On the job experiences with public or private sector organizations. (Formerly 6500:487)

## Information Systems Management (ISM)

**ISM:201 Introduction to E-Business (3 Credits)**

Prerequisite: 24 credits. Provides a broad overview of e-business strategies, products and technologies. Discusses transformation of marketing, production and other business functions; and related legal, political, ethical and cultural issues. (Formerly 6100:201)

**ISM:310 Business Information Systems (3 Credits)**

Prerequisites: Completion of 48 credit hours and [ACCT 250 or admission to the Computer Science major]. Provides a technical and organizational foundation for understanding the use and importance of information systems and information technology in today's business environment. (Formerly 6500:310)

**ISM:315 Applications Development for Business Processes (3 Credits)**

Prerequisites: ACCT 250 and 48 completed hours. Analysis and automation of business operations and processes. Development of applications based on a simulated enterprise-wide database. (Formerly 6500:315)

**ISM:324 Database Management for Information Systems (3 Credits)**

Prerequisites: ACCT 250 and 48 completed hours. An introduction to database design and management, including data modeling, relational theory, Structured Query Language, and database applications, development, using database management systems. (Formerly 6500:324)

**ISM:325 Systems, Analysis, & Design (3 Credits)**

Prerequisites: ISM 315. An introduction to the techniques of business modeling, systems design, and implementation, including the application of software engineering tools in support of modeling and code generation. (Formerly 6500:325)

**ISM:420 Data Networks and Security (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, ISM 310, and upper level standing. Principles of the design and management of data networks for business communications. (Formerly 6500:420)

**ISM:425 Decision Support with Data Warehousing & Data Mining (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, ISM 324, and MGMT 305. Examines managerial and technical aspects of business decision-making based on the use of data warehouses, on-line analytical processing (OLAP) and data mining. (Formerly 6500:425)

**ISM:426 E-Business Application Development (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, ACCT 250, and upper level standing. Students will gain an understanding of issues and skills related to web application design and development. (Formerly 6500:426)

**ISM:427 Systems Integration (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college and ISM 315. The course provides an understanding of issues and underlying application integration. Topics include coverage of middleware technologies, B2B standards and XML. (Formerly 6500:427)

**ISM:428 Systems Development Project (3 Credits)**

Prerequisites: ISM 324 and ISM 325. Pre/Corequisite: ISM 427. Implementing business objects and use cases in projects. Object persistence, object collaboration, and controller and UI designs are discussed. (Formerly 6500:428)

**ISM:488 Internship in Information Systems (3 Credits)**

Prerequisite: Permission of department chair or designated faculty member. On the job experience with public or private sector organizations. (Formerly 6500:488)

## Institute for Human Science and Culture (IHSC)

**IHSC:201 Curating Exhibits and Displays in Museums and Archives (3 Credits)**

Professionals in museums and archives design exhibitions and displays. Doing so requires working knowledge of visitors/researchers, educational initiatives, design approaches, institutional collections, policies and procedures, budgets, and cultural considerations, which this course addresses. Exhibition Curators may have backgrounds in art, anthropology, libraries, history, or other related fields.

**IHSC:301 Foundations of Museums and Archives I (3 Credits)**

This course provides students with a basic set of skills that prepares them for work in the museum and archives professions. Topics covered include the role of museums and archives, handling and preservation, museum exhibit design and assessment, organizing and describing materials, policies and procedures, the relations, education and assessment, the research purposes museums and archives, and cultural considerations. (Formerly 1900:301)

**IHSC:302 Foundations of Museums and Archives II (3 Credits)**

Prerequisite: IHSC 301. Provides basic skills for working in museum and archives professions. (Formerly 1900:302)

**IHSC:425 Practical Experience in Museums and Archives (1-3 Credits)**

Practical experience or independent reading/research in museums/archives, or related to human science and culture under the supervision and evaluation of a selected faculty member. (Formerly 1900:425)

**IHSC:445 Special Topics in Human Science and Culture (3 Credits)**

This project-based course is for upper-level undergraduate students designed so practitioners, instructors, and community experts can design and teach classes in special topics related to the human condition and rooted in Institute collections. Special Topics represented in this content are professional discussions and hands-on applications of content that builds on general and entry level education from the IHSC and/or the student's home department. This course is used to explore issues and culture in human science and culture and to explore what it means to be human. Topics could include restoration of cultural artifacts, paper conservation, rapid mass digitization projects, research, education and outreach to local schools, traveling exhibitions, historic and modern sound and imaging techniques, and other topics that explore and expose the human condition. This course has particular emphasis on community needs and emerging trends that students, instructors, and experts work on experientially and collaboratively. (Formerly 1900:445)

## Institute for Life Span Development and Gerontology (ILSD)

### **ILSD:450 Interdisciplinary Seminar in Life-Span Development & Gerontology (2 Credits)**

(May be repeated for a total of two credits) Prerequisite: Permission of instructor. Introduction to interdisciplinary study of gerontology including discussion of dimensions of aging, historical framework of aging in America, demographics, service systems, and current issues. (Formerly 3006:450)

### **ILSD:485 Special Topics in Life-Span Development & Gerontology (1-3 Credits)**

Prerequisite: Permission of instructor. Specialized topics and current issues in life-span development or gerontology. Covers content or issues not currently addressed in other academic courses. (Formerly 3006:485)

### **ILSD:486 Retirement Specialist (2 Credits)**

An investigation of issues related to the design and implementation of pre-retirement planning and examination of life-span planning education as employed by labor, business and education. (Formerly 3006:486)

### **ILSD:490 Workshop in Life-Span Development & Gerontology (1-3 Credits)**

(May be repeated) Group studies of special topics in life-span development and gerontology. May not be used to meet certificate requirements. May be used for elective credit only. (Formerly 3006:490)

### **ILSD:495 Practicum in Life-Span Development & Gerontology (1-3 Credits)**

(May be repeated) Prerequisite: permission. Supervised experience in research or community agency work. (Formerly 3006:495)

## International Business (INTB)

### **INTB:205 International Business (3 Credits)**

Prerequisites: 24 hours of college credit. A basic course in international business which focuses on global diversity, cultural and economic differences, and related current events. The course emphasizes that students should respect, appreciate, and understand multiple, diverse positions as they enhance their knowledge of global diversity, understanding global relationships, and practice critical thinking on international current events and challenges. (Formerly 6800:205)

### **INTB:220 Global Culture and Business Field Experience (1-3 Credits)**

Prerequisite: Sophomore or greater standing. Students travel on faculty led trips and study international business practices. Global business practices are examined and aspects of local culture are explored. (Formerly 6100:220)

### **INTB:406 International Business Study Abroad (3.00 Credits)**

Prerequisite: Must have been admitted to a major in a four-year degree granting college. Approved travel and study to a foreign country per the requirements of the International Business major. (Formerly 6800:406)

### **INTB:421 Foreign Market Entry (3 Credits)**

Prerequisites: Must have been admitted to a major in a four-year degree granting college and INTB 205. A study of the business processes and procedures associated with successful foreign market entry. International Business practices around the world related to successful and unsuccessful entry are compared and contrasted. Letters of Credit, Import/Export Documentation and Global Shipping Standards are examined. (Formerly 6800:421)

### **INTB:422 Foreign Market Distance Analysis (3 Credits)**

Prerequisites: Must have been admitted to a major in a four-year degree granting college, INTB 205, and INTB 406. The cultural, administrative, geographic, and economic difference between home and host countries can dramatically impact the success of foreign market entry by the home country. Students will learn how to successfully identify and respond to these differences. (Formerly 6800:422)

### **INTB:492 Internship in International Business (3 Credits)**

Prerequisite: Permission of department chair. On-the-job experience with public or private sector organizations in the field of marketing. On-the-job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by a weekly diary and a term paper, which are supervised and evaluated by the department chair. (Formerly 6800:492)

### **INTB:496 Special Topics: International Business (1-3 Credits)**

(May be repeated for a total of three credits) Prerequisite: Permission of instructor. Provides the opportunity to study special topics and current issues in international business. Note: Other international business courses are offered under departmental course numbers. They are ACCT 408, BLAW 323, FIN 481, MGMT 457, and MGMT 459 (Formerly 6800:496)

### **INTB:498 International Business Experiential Learning (3 Credits)**

Prerequisites: Must have been admitted to a major in a four year degree granting college and junior or greater standing. Serving as an alternative to a study abroad experience, this course seeks to have students emerge as civically-engaged, adaptable global leaders, ready to join in the enterprise of building strong and sustainable organizations by promoting hands-on, problem-centered learning. Students will apply critical reasoning skills to contemporary issues facing firms and organizations in the dynamic global environment. Students will be required to consider the many factors impacting business today, including economic, governmental, competitive, legal and cultural forces, as they develop strategic responses to the challenges facing a given firm or organization. (Formerly 6800:498)

## Intervention Specialist (EDIS)

### **EDIS:100 Orientation to Intervention Specialist (0 Credits)**

Prerequisite: admission to Intervention Specialist teacher education program. Corequisite: EDFN 200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development. (Formerly 5610:100)

### **EDIS:206 Special Problems: Gifted (1 Credit)**

(Formerly 5610:206)

### **EDIS:225 Introduction to Exceptionalities (3 Credits)**

Prerequisite: 13-15 sem. hrs. with a 'C' or better in specific GenEd courses; EDFN 200 (may be taken as prerequisite or corequisite); FBI/BCI background checks. Survey course covering the identification, developmental characteristics and intervention strategies for children and youth with exceptionalities across educational and community settings. (Formerly 5610:225)

### **EDIS:380 Math Methods: Special Education (3 Credits)**

Prerequisite: Admission to the Teacher Education Program. Ensure the understanding of mathematics and to promote the prospective special education teacher's confidence in his/her own ability to teach mathematics. (Formerly 5610:380)

### **EDIS:395 Field Experience: Special Education (1-3 Credits)**

Supervised work with youngsters, individually and in groups in school and/or community settings. (Formerly 5610:395)

**EDIS:403 Student Teaching Colloquium: Special Education (1 Credit)**

An examination of problems, issues, and practices encountered during the student teaching experience. (Formerly 5610:403)

**EDIS:439 Collaboration with Families and Professionals in Early Childhood (3 Credits)**

This course prepares early childhood professionals for engaging in collaborative home/school consultation and teamwork in serving the educational needs of young children. (Formerly 5610:439)

**EDIS:440 Developmental Characteristics of Exceptional Individuals (3 Credits)**

Prerequisite: Admission to a School of Education Teacher Preparation Program or permission of the instructor. A survey course covering the identification, developmental characteristics, and intervention strategies for exceptional children and youth across education and community settings. (1 field hour) (Formerly 5610:440)

**EDIS:444 Developmental Characteristics of Intellectually Gifted Individuals (3 Credits)**

See department for course description. (Formerly 5610:444)

**EDIS:447 Individuals with Mild/Moderate Educational Needs: Characteristics and Implications (4 Credits)**

Prerequisite: EDIS 225. Survey of the etiology, identification, classification, developmental characteristics of, and intervention strategies for individuals with mild/moderate educational needs. (Formerly 5610:447)

**EDIS:448 Individuals with Moderate/Intensive Educational Needs: Characteristics and Implications (3 Credits)**

Prerequisites: EDIS 225 and admission to a teaching education program. Survey of the etiology, identification, classification, and developmental characteristics of individuals with moderate/intensive educational needs. 10 Field Hours (Formerly 5610:448)

**EDIS:450 Special Education Programming for Primary Teachers (3 Credits)**

Prerequisites: EDIS 225 and admission to Teacher Preparation Program. Corequisite: EDPI 454. The focus of this course is on students with disabilities from preschool through grade 5. The course combines detailed information about specific disability categories with evidenced-based practices for instruction and behavioral support. The course prepares teacher candidates with the knowledge, skills and dispositions to incorporate best practices to create and maintain productive PK-5 learning environments for diverse populations of students including those with special education needs (40 hours field). (Formerly 5610:450)

**EDIS:451 Special Education Programming: Mild/Moderate I (3 Credits)**

Prerequisites: EDIS 225, EDIS 447. Educational implications regarding assessment, teaching strategies, and adaptive materials necessary to meet the needs of school age students with mild/moderate educational needs. (20 field hours) (Formerly 5610:451)

**EDIS:452 Special Education Programming: Secondary/Transition (3 Credits)**

Study of diagnostic prescriptive service delivery systems designed to accommodate developmental patterns of secondary-level students with exceptionalities. (20 field hours) (Formerly 5610:452)

**EDIS:453 Special Education Programming: Moderate/Intensive I (3 Credits)**

Prerequisite: EDIS 448. Development of the programming strategies including assessment, inter/transdisciplinary models, family involvement, IFSP/IEP/IP development, instructional practices based upon legal/ethical principles for individuals with moderate/intensive educational needs. (Formerly 5610:453)

**EDIS:454 Special Education Programming: Moderate/Intensive II (3 Credits)**

Prerequisites: EDIS 448 and EDIS 453. Advanced program for providing educational planning and intervention for individuals with moderate to intensive educational needs. Focus is on developing a comprehensive educational program which will facilitate optimum functioning and independence. (20 field hours) (Formerly 5610:454)

**EDIS:456 Inclusive Field Experience: Moderate/Intensive (1 Credit)**

Corequisite: EDIS 454. In this 50-hour inclusive field experience, teacher candidates explore the challenges and best practices in providing quality educational services for all learners. (Formerly 5610:456)

**EDIS:457 Special Education Programming: Mild/Moderate II (4 Credits)**

Corequisite: EDIS 458. Special educational implications regarding assessment, teaching strategies, and adaptive materials necessary to meet the needs of school age students with mild/moderate educational needs. (Formerly 5610:457)

**EDIS:459 Collaboration & Consultation in Schools & Community (3 Credits)**

Prerequisite: EDIS 225. Provides professional educators/intervention specialists with skills in collaboration and consultation for working with parents of exceptional individuals and other professionals within school/community settings. (Formerly 5610:459)

**EDIS:460 Family Dynamics & Communication in the Educational Process (3 Credits)**

Prerequisite: EDIS 225. A study of family theory and structure along with beginning techniques for working with families of students with exceptionalities, in educational and community settings. (Formerly 5610:460)

**EDIS:461 Special Education Programming: Early Childhood Moderate/Intensive (3 Credits)**

Prerequisites: EDIS 440, EDIS 448. Developmental patterns of young children with moderate/intensive needs (ages 3-8) and developmentally appropriate practices in programming and adaptations. (20 field hours) (Formerly 5610:461)

**EDIS:462 Collaboration with Families and Professionals (3 Credits)**

Prerequisite: EDIS 225. This course provides pre-service teacher candidates with the knowledge, skills, and dispositions in communication, collaboration and team processes that facilitate a collaborative culture in schools. (Formerly 5610:462)

**EDIS:463 Assessment in Special Education (3 Credits)**

Prerequisite: EDIS 225. Prepares student to select, administer and interpret formal and informal assessment procedures and use resulting data in planning educational programs for exceptional individuals. (Formerly 5610:463)

**EDIS:464 Assessment & Evaluation in Early Childhood Special Education (3 Credits)**

Prerequisites: EDIS 225, EDIS 448. The assessment of children three to eight and their environment who are at risk for disabilities or currently in special education. (Formerly 5610:464)

**EDIS:467 Management Strategies in Special Education (3 Credits)**

Prerequisite: EDIS 225. Content emphasizing the development of application strategies with a variety of behavior management models to mediation of behaviors with exceptional individuals. (Formerly 5610:467)

**EDIS:469 Inclusive Education for English Learners (2 Credits)**

This class prepares teachers to use evidence based strategies, accommodations, and instruction to enhance the curriculum for the English Learners with special education needs. (Formerly 5610:469)

**EDIS:470 Clinical Practicum in Special Education (3 Credits)**

Prerequisite: Permission; Corequisites: EDIS 403 and [EDIS 486 or EDIS 487]. Provides a pre-student teaching experience for students in the areas of assessment, program planning, instructional planning and presentation, classroom management, adaptations, and collaboration with parents and other educational professionals. (Formerly 5610:470)

**EDIS:479 Seminar: Invitational Studies in Special Education (1-2 Credits)**

(May be repeated for a total of four credits) Topical study with a varied array of disciplinary input. Staffing will be invited members of allied and contributing professions active in management of exceptional children. (Formerly 5610:479)

**EDIS:485 Student Teaching: Early Childhood Intervention Specialist (11 Credits)**

Prerequisites: Approval of the Student Teaching Committee, based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: EDIS 403. Planned teaching experience in schools selected and supervised by the Office of Field Experience. (Formerly 5610:485)

**EDIS:486 Student Teaching: Mild/Moderate Educational Needs (9 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing Ohio Assessment For Educators (OAE) subject test, and approved portfolio. Corequisite: EDIS 403. Planned teaching experience in schools selected and supervised by the Office of Field Experience. (Formerly 5610:486)

**EDIS:487 Student Teaching: Moderate/Intensive Educational Needs (9 Credits)**

Prerequisites: Approval of the Office of Student Teaching considered based upon approved application to student teaching, passing OAE tests and GPA requirements. Corequisite: EDIS 470. Planning teaching experience in schools selected and supervised by the office of Field Experience. (Formerly 5610:487)

**EDIS:488 Student Teaching: Early Child/Early Child Interven. Spec (6 Credits)**

Approval of the Student Teaching Committee, based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisites: EDPI 495, EDIS 403, EDIS 470. Planned teaching experience in schools selected and supervised by the Office of Field Experience. (Formerly 5610:488)

**EDIS:490 Workshop: Special Education (1-3 Credits)**

(May be repeated for a total of six credits) Designed to explore special topics in in-service or preservice education on a needs basis. (Formerly 5610:490)

**EDIS:491 Workshop: Special Education (1-3 Credits)**

(May be repeated for a total of six credits) Designed to explore special topics in in-service or preservice education on a needs basis. (Formerly 5610:491)

**EDIS:492 Workshop: Special Education (1-3 Credits)**

(May be repeated for a total of six credits) Designed to explore special topics in in-service or preservice education on a needs basis. (Formerly 5610:492)

**EDIS:493 Workshop: Special Education (1-3 Credits)**

(May be repeated for a total of six credits) Designed to explore special topics in in-service or preservice education on a needs basis. (Formerly 5610:493)

**EDIS:497 Independent Study: Special Education (1-3 Credits)**

Specific area of investigation determined in accordance with student's needs. (Formerly 5610:497)

**EDSP:492 Workshop in Reading (1-3 Credits)**

Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units. (Formerly 5800:492)

**EDSP:493 Workshop on Exceptional Children (1-3 Credits)**

Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units. (Formerly 5800:493)

**EDSP:494 International School Study (3-6 Credits)**

On-the-scene study of education in foreign countries, usually by concentrating on the study of schools in one restricted geographical area. (Formerly 5800:494)

## Italian (ITAL)

**ITAL:101 Beginning Italian I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3550:101)

**ITAL:102 Beginning Italian II (4 Credits)**

Sequential. Prerequisite: ITAL 101. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3550:102)

**ITAL:201 Intermediate Italian I (3 Credits)**

Sequential. Prerequisite: ITAL 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3550:201)

**ITAL:202 Intermediate Italian II (3 Credits)**

Sequential. Prerequisite: ITAL 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3550:202)

**ITAL:301 Italian Composition & Conversation (3 Credits)**

Prerequisite: ITAL 202 or equivalent. Italian composition using Italian models, special attention to words and idioms and development of oral expression and conversational ability. (Formerly 3550:301)

**ITAL:302 Italian Composition & Conversation (3 Credits)**

Prerequisite: ITAL 202 or equivalent. Italian composition using Italian models, special attention to words and idioms and development of oral expression and conversational ability. (Formerly 3550:302)

**ITAL:422 Italian: Special Topics in Advanced Language Skills, or Culture, or Literature (1-4 Credits)**

Prerequisite: ITAL 202 or equivalent. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3550:422)

**ITAL:497 Individual Reading in Italian (1-3 Credits)**

Prerequisite: ITAL 202 and permission of the department chair. (Formerly 3550:497)

## Japanese (JAPN)

### JAPN:101 Beginning Japanese I (4 Credits)

Sequential. Acquisition of basic reading, speaking, writing, and listening comprehension skills. (Formerly 3560:101)

### JAPN:102 Beginning Japanese II (4 Credits)

Sequential. Prerequisite: JAPN 101 or equivalent. Acquisition of basic reading, speaking, writing, and listening comprehension skills. (Formerly 3560:102)

### JAPN:201 Intermediate Japanese I (3 Credits)

Sequential. Prerequisite: JAPN 102 or equivalent. Continuing development of reading, writing, speaking, and listening comprehension skills. (Formerly 3560:201)

### JAPN:202 Intermediate Japanese II (3 Credits)

Sequential. Prerequisite: JAPN 201 or equivalent. Continuing development of reading, writing, speaking, and listening comprehension skills. (Formerly 3560:202)

### JAPN:210 Japanese Culture through Film (3 Credits)

Prerequisites: A minimum of Sophomore standing or higher and completion of English Composition I and II (ENGL 111 and ENGL 112) or equivalent. Exploration of various aspects of Japanese culture through viewing of films. Films are subtitled in English. Readings and discussions in English. (Formerly 3560:210)

**Gen Ed:** - Humanities; - Global Diversity

### JAPN:301 Advanced Intermediate Japanese I (3 Credits)

Prerequisite: JAPN 202 or placement. Course focuses on intermediate-advanced speaking, listening, writing, and reading skills in Japanese, as well as cultural proficiency. (Formerly 3560:301)

### JAPN:422 Special Topics in Language Skills, or Culture, or Literature (3 Credits)

Prerequisite: JAPN 202 or equivalent. (May be repeated). Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3560:422)

### JAPN:497 Individual Reading in Japanese (1-3 Credits)

Prerequisite: JAPN 202 or permission of the department chair. Directed study in an area of individual interest chosen by the student in consultation with the instructor. (Formerly 3560:497)

## Latin (LATN)

### LATN:101 Beginning Latin I (4 Credits)

Sequential. Reading, writing and translation; oral and written drill; analysis of grammatical structure and English vocabulary building. (Formerly 3510:101)

### LATN:102 Beginning Latin II (4 Credits)

Sequential. Prerequisite: LATN 101 or equivalent. Reading, writing and translation; oral and written drill; analysis of grammatical structure and English vocabulary building. (Formerly 3510:102)

### LATN:190 The Making of English Words from Latin and Greek Elements (3 Credits)

The influence of Latin and Greek on English vocabulary with some attention to the use of these languages in the scientific and legal fields. No foreign language is necessary. (Formerly 3510:190)

### LATN:201 Intermediate Latin I (3 Credits)

Prerequisite: LATN 102 or equivalent. A survey of readings of the less difficult authors such as Pliny, Caesar, Plautus, Cicero's Letters or equivalent material. (Formerly 3510:201)

### LATN:202 Intermediate Latin II (3 Credits)

Prerequisite: LATN 201 or equivalent. A survey of readings of the less difficult authors such as Pliny, Caesar, Plautus, Cicero's Letters or equivalent material. (Formerly 3510:202)

### LATN:303 Advanced Latin I (3 Credits)

Prerequisites: LATN 202 or equivalent. Satirists, dramatists, philosophical, religious writers, lyric and elegiac poets, medieval writers. (May be repeated for credit with change of subject) (Formerly 3510:303)

### LATN:304 Advanced Latin II (3 Credits)

Prerequisite: LATN 202 or equivalent. Satirists, dramatists, philosophical, religious writers, lyric and elegiac poets, medieval writers. (May be repeated for credit with change of subject) (Formerly 3510:304)

### LATN:497 Latin Reading & Research (3 Credits)

Generally Latin epigraphy, prose composition or philology; numismatics or certain other archaeological topics may be offered. (May be repeated for credit with change of subject) (Formerly 3510:497)

### LATN:498 Latin Reading & Research (3 Credits)

Generally Latin epigraphy, prose composition or philology; numismatics or certain other archaeological topics may be offered. (May be repeated for credit with change of subject) (Formerly 3510:498)

## Management (MGMT)

### MGMT:254 Global Experience (1-3 Credits)

Prerequisite: 28 credit hours completed. Provides an opportunity for students to learn from faculty expertise in the context of a foreign country. International management practices are examined and aspects of local culture are studied. (Formerly 6500:254)

### MGMT:301 Management: Principles & Concepts (3 Credits)

Prerequisites: 32 completed credit hours. An interdisciplinary approach to the study of the basic principles of general management theory and practice. (Formerly 6500:301)

### MGMT:302 Organizational Behavior & Leadership Skills (3 Credits)

Prerequisite: 48 completed credit hours. Investigation of applications of behavioral and social sciences as they relate to individual, group behavior in organizations. (Formerly 6500:302)

### MGMT:304 Business Statistics (3 Credits)

Prerequisites: [MATH 145 with a grade of C- or better or higher math] and ACCT 250. Introduces statistical methods to support quantitative decision analysis for solving business problems. Includes probability, sampling, estimation, hypothesis testing, analysis of variance. Utilizes case studies. (Formerly 6500:304)

### MGMT:305 Business Analytics (3 Credits)

Prerequisites: MGMT 304. Studies core statistical techniques; data retrieval, analysis and mining; and decision modeling to effectively persuade in the project-oriented world of data-driven decisions. (Formerly 6500:305)

### MGMT:370 Financial Issues in Sport (3 Credits)

Prerequisites: Must be admitted to a major in a four-year degree granting college, ACCT 201, ACCT 250, and FIN 301. This course will address ownership structures, venue financing, franchise valuation, risk, taxes, sport investment, labor and media contracts and budgeting. Students will also explore the body of knowledge associated with pursuing a career in sport business. (Formerly 6500:370)



**MGMT:380 Global Esports Business Management (3 Credits)**

This class will prepare students with the knowledge base necessary to understand up-to-date information about the global esports ecosystem and discuss career opportunities available for students. Also this course will seek to explore, acquire, and discuss knowledge within the theoretical and applied management strategies in esports ecosystem. Students will also be required to complete various tasks, both in and out of the classroom, that are relevant esports. (Formerly 6500:380)

**MGMT:400 Esports Event Management (3 Credits)**

Prerequisite: Admission to a major in a four-year degree granting college. This course is designed to provide the students with solid fundamental information on what students need to do to be a successful event manager in the esports industry. Students will discuss various ways that organizations plan, develop, and manage various esports events. Students will have opportunities to volunteer for University of Akron esports program throughout the semester. (Formerly 6500:400)

**MGMT:404 Current Topics in Sport Business (3 Credits)**

Prerequisites: Junior or greater standing and must be admitted to a major in a four-year degree granting college. This course will focus on the evolution of sport in the 21st century. Topics may include the professionalization of college athletics, technological advances in sport, athlete branding, the use of advanced metrics in performance projections, customer/ fan engagement, the role of social media in sport consumption, diversity, and sport and society. (Formerly 6500:404)

**MGMT:422 Applied Sales in Sport (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, BUSN 230, and MKTG 205. This course will provide students with a variety of learning experiences related to the theory and examination of sales in sport. Specifically, this course empowers students to gain real-world experience in the business-to-consumer sales process while working on a real-world project with a sport organization partner. (Formerly 6500:422)

**MGMT:457 International Management (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college; upper level standing and MGMT 301 or equivalent. Management practices and techniques of international business organizations. Focus on structure and processes of resource allocation, design and technology, and the impact of culture. (Formerly 6500:457)

**MGMT:459 Selected Topics: International Management (1-3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level standing, MGMT 301 or equivalent, and MGMT 457. Selected topics in international management focus on historical or contemporary managerial, production and organizational issues. Includes international simulation game. Six hour limit. (Formerly 6500:459)

**MGMT:460 Special Topics in Management (3 Credits)**

Prerequisite: Must be admitted to a major in a 4-year degree granting college. Exploration of advanced topics of interest both to the student and professor. Many special applications, case studies, outside speakers, projects in conjunction with local industries. (Formerly 6500:460)

**MGMT:470 Sport Business Consulting Project (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college. Students develop skills in navigating and managing team dynamics while addressing complex issues specific to a unique sport organization. (Formerly 6500:470)

**MGMT:477 Management Simulation (1 Credit)**

Prerequisite: MGMT 301. Simulation of management practices through computerized game or experiential exercise. (Formerly 6500:477)

**MGMT:490 Strategic Management (3 Credits)**

Prerequisites: Admission to a major in the CBA, 97 credits in which 15 crd hrs, or half of major credits must be completed, BUSN 230, ACCT 201, ACCT 202, ACCT 250, [BLAW 220 or BLAW 321 or ACCT 424], FIN 301, MGMT 301, MGMT 304, [MGMT 305 or ECON 325], SCM 330, MKTG 205, and INTB 205. Capstone course. Integrates the core business disciplines (accounting, economics, finance, management, marketing) through the use of case analysis. Objective and strategy formulation from an administrative viewpoint and international dimension. Emphasis on oral and written communications. (Formerly 6500:490)

**MGMT:491 Workshop in Management (1-3 Credits)**

Prerequisite: Must be admitted to a major in a 4-year degree granting college. (May be repeated with permission of instructor or department) Group studies of special topics in management. May not be used to meet undergraduate major requirements in management. May be used for elective credits only. (Formerly 6500:491)

## Marketing (MKTG)

**MKTG:205 Marketing Principles (3 Credits)**

Prerequisite: 24 hours of college credit. Pre/Corequisite: ECON 200 or ECON 244. A general survey of marketing activities including analysis of markets, competition, consumer behavior, information systems, and the assessment of product, price, distribution, and promotion strategies. (Formerly 6600:205)

**MKTG:335 Marketing Research (3 Credits)**

Prerequisites: MGMT 304 and [MKTG 205 with a grade of C or better]. Corequisite: MKTG 336. Student will gain hands-on experience in the understanding and use of appropriate tools and techniques for analyzing and presenting information derived from marketing databases. Includes problem definition and solution approach to marketing research decisions. (Formerly 6600:335)

**MKTG:336 Marketing Research Lab (1 Credit)**

Prerequisites: MGMT 304 and MKTG 205. Corequisite: MKTG 335. Students will gain hands-on experience in the understanding and use of appropriate tools and techniques for analyzing and presenting information derived from marketing databases. Includes problem definition and solution approach to marketing research decisions. (Formerly 6600:336)

**MKTG:355 Consumer Behavior (3 Credits)**

Prerequisite: MKTG 205 with a grade of C or better. Interdisciplinary approach to the analysis of the nature of consumer buying behavior. Economical, social, and psychological influences on consumers' decision-making processes are examined. (Formerly 6600:355)

**MKTG:375 Marketing & Sales Analytics (3 Credits)**

Prerequisite: MKTG 335. Develop the skills to provide clients with actionable marketing intelligence gleaned from the customer, sales force, channel, promotion and competitor databases that are now pervasive in the business world. (Formerly 6600:375)

**MKTG:432 Integrated Marketing Communications (3 Credits)**

Prerequisites: Must be admitted to a 4 year major, MKTG 205 with a grade of C or better, and MKTG 355. This course stresses the need for marketers to create consistent coordinated communication programs using all elements of the promotion mix including advertising, public relations, sales promotion, social media and personal selling. (Formerly 6600:432)

**MKTG:434 Digital Marketing (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, MKTG 205, and MKTG 432. Focuses on the planning and execution of the promotion mix in the digital environment through online and mobile advertising, sales promotion, social media, blogging, website design and SEO. (Formerly 6600:434)

**MKTG:440 Brand Management (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, MKTG 205, and MKTG 355. This course studies the process of building and evolving successful brands. It focuses on brand equity development by creating a distinct brand identity, impeccable brand integrity and emotional resonance. It also emphasizes brand evolution through incremental and radical innovation. (Formerly 6600:440)

**MKTG:446 Social Media Marketing (3 Credits)**

Prerequisites: Must be admitted to a four-years degree granting college, MKTG 205, MKTG 355, and MKTG 432. Examines strategies used for marketing within social media. Topics include analytics and tactics to design, manage and optimize consumer engagement and commerce. (Formerly 6600:446)

**MKTG:460 B2B Marketing (3 Credits)**

Prerequisites: Must be admitted to a four year degree granting program and MKTG 205 with a grade of C or better. This course provides a thorough grounding in industrial and business-to-business marketing. While many of the concepts are similar to those used in consumer marketing, there are major differences. This course will explore both the similarities and the differences. (Formerly 6600:460)

**MKTG:486 Internship in Marketing (3 Credits)**

Prerequisites: Must be admitted to a 4-year degree granting major and permission of department chair. On-the-job experience with public or private sector organizations in the field of marketing. On-the-job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by a weekly diary, two reflection papers, and an oral presentation of their experiences, which are supervised and evaluated by the department chair. (Formerly 6600:486)

**MKTG:488 Internship in Integrated Marketing Communications (3 Credits)**

Prerequisite: Permission of department chair. On the job experience with public or private sector organizations in the field of marketing. On the job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by the weekly diary and term paper, which are supervised and evaluated by the department chair. (Formerly 6600:488)

**MKTG:491 Professional Workshops in Marketing (1-3 Credits)**

Prerequisites: Sophomore status and be admitted to a 4 year degree granting college. Special topics in marketing taught primarily by professionals with the objective of adding depth and an applied perspective to marketing concepts, issues, software & databases, problem solving and career planning. Special emphasis is given to timely issues and new technologies required by the rapidly changing marketplace. (May be repeated for up to six credits.) (Formerly 6600:491)

**MKTG:494 Professional Insights: Marketing Management (1 Credit)**

Prerequisites: Junior status and be admitted into a four year degree granting college. Marketing Management is designed to link marketing management majors' academic learning to professional practice. Guest speakers, recognized experts in their field, share important lessons in marketing management and challenge students to address key issues in their profession. (Formerly 6600:494)

**MKTG:495 Professional Insights: IMC (1 Credit)**

Prerequisites: Junior status and be admitted into a four year degree granting program. IMC is designed to link Integrated Marketing Communication majors' academic learning to professional practice. Guest speakers, recognized experts in their field, share important lessons in IMC and challenge students to address key issues in their profession. (Formerly 6600:495)

**MKTG:496 Special Topics: Marketing (1-3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and MKTG 205. (May be repeated for a total of three credits) Provides an opportunity to examine special topics and/or current issues in the fields of marketing, sales retailing or advertising. (Formerly 6600:496)

**MKTG:499 Marketing Capstone Project (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year, degree granting college and for all Marketing majors: SALES 275, MKTG 335, MKTG 355, MKTG 375. PLUS for Sales Management majors: SALES 475, SALES 480; For IMC majors: MKTG 432, 6600:438; For Marketing Management majors: MKTG 440, MKTG 460. Student teams comprised of members from each marketing major will refine a live Client marketing strategy (product, price, distribution and promotion) and develop complementary integrated marketing communication and sales force plans. (Formerly 6600:499)

## Mathematics (MATH)

**MATH:135 Mathematics for Everyday Life (3 Credits)**

Prerequisites: DEVP 52, DEVP 57, or DEVP 84 with a grade of C- or better or placement test. Contemporary applications of mathematics for the non-science major to develop skills in logical thinking and reading technical material. (Formerly 3450:135)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:140 Fundamentals of Mathematics for Primary Educators (3 Credits)**

Prerequisite: placement test or MATH 152 with a grade of C- of better or STAT 250 with a grade of C- or better or STAT 260 with a grade of C- of better. Corequisite: EDFN 200. A problem-solving and inquiry-based approach to number systems; bases; operations, properties, relationships, algorithms of Real Numbers; patterns and algebra. (Formerly 3450:140)

**MATH:145 Algebra for Calculus (4 Credits)**

Prerequisite: DEVP 85 with a grade of C- or better or MATH 152 with a grade of C- or placement test. Real numbers, equations and inequalities, linear and quadratic functions. Exponential and logarithmic functions. Systems of equations, matrices, determinants. Permutations and combinations. (Formerly 3450:145)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:149 Precalculus Mathematics (4 Credits)**

Prerequisite: MATH 145 with a grade of C- or better or MATH 153 with a grade of C- or better or placement test. Functions, polynomial functions, complex numbers, exponential and logarithmic functions, systems of equations, trigonometric functions, mathematical inductions, sequences, and binomial theorem. (Formerly 3450:149)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:151 Technical Mathematics I (2 Credits)**

Prerequisite: placement test, DEVP 52, DEVP 54, DEVP 57, or DEVP 84 with a grade of C or better. Fundamental concepts and operations, functions, graphs, factoring and algebraic fractions, and quadratic equations. (Formerly 2030:151)

**MATH:152 Technical Mathematics II (2 Credits)**

Prerequisite: MATH 151 with a grade of C- or better or placement test. Variation, equations of lines, Cramer's rule, right triangle trigonometry, oblique triangles, radian measure, and complex numbers. (Formerly 2030:152)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:153 Technical Mathematics III (2 Credits)**

Prerequisite: MATH 152 with a grade of C- or better or placement test. Factoring, algebraic fractions, exponents and radicals, equations with radicals, equations in quadratic form, functions, their properties and graphs, exponential and logarithmic functions. (Formerly 2030:153)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:154 Technical Mathematics IV (3 Credits)**

Prerequisite: MATH 153 with a grade of C- or better or placement test. Functions and their graphs, polynomial and rational functions, polynomial equations, graphs of trigonometric functions, trigonometric identities and equations, analytic geometry, complex numbers in polar form. (Formerly 2030:154)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:161 Mathematics for Modern Technology (4 Credits)**

Prerequisite: Placement test or completion of DEVP 52, DEVP 54, DEVP 57, or DEVP 84 with a grade of C or better. Lines, linear regression, sets, counting, basic probability, basic statistics, binomial and normal distributions, mathematics of finance, symbolic logic, arguments, logic circuits. (Formerly 2030:161)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:208 Introduction to Discrete Mathematics (4 Credits)**

Prerequisite: Completion of MATH 145 or MATH 149 with a grade of C- or better or placement. A foundation course in discrete mathematics with applications. Topics include sets, number systems, Boolean Algebra, logic, relations, functions, recursion, matrices, induction, graphs, and trees. (Formerly 3450:208)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:209 Discrete Mathematics for Educators (4 Credits)**

Prerequisite: Completion of MATH 140 with a grade of C- or better or placement. Corequisite: MATH 231. Introduction to discrete mathematics topics for middle school instruction: sets, counting, probability, recurrence relations, graph theory, logic and elementary proof techniques. (Formerly 3450:209)

**MATH:210 Calculus with Business Applications (3 Credits)**

Prerequisite: Placement test or MATH 145 with a grade of C- or better or MATH 153 with a grade of C- or better. Review of functions, derivatives of functions, extrema and concavity, optimization, logarithmic and exponential functions, extrema for multivariate functions. Graphing calculator required. For business or economics majors only. (Formerly 3450:210)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:215 Concepts of Calculus (4 Credits)**

Prerequisite: Completion of MATH 145 or MATH 149 with a grade of C- or better or placement. Functions; limits and continuity; differentiation and applications of differentiation; logarithmic and exponential functions; integration and applications of integration; partial differentiation. (Formerly 3450:215)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:221 Analytic Geometry-Calculus I (4 Credits)**

Prerequisite: MATH 154 with a grade of C- or better or MATH 255 with a grade of C- or better or MATH 149 with a grade of C- or better or placement test. Limits; continuity; rates of change; derivatives and applications algebraic, trigonometric, transcendental functions; curve sketching, antiderivatives and integration, areas. (Formerly 3450:221)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:222 Analytic Geometry-Calculus II (4 Credits)**

Prerequisite: MATH 221 with a grade of C- or better or MATH 356 with a grade of C- or better. Methods and applications of integration; sequences, series and power series; Taylor polynomials and Taylor series; parametric and polar coordinates. (Formerly 3450:222)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:223 Analytic Geometry-Calculus III (4 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better. Vector algebra, cylindrical, spherical coordinates, vector-valued functions, curvature; functions of several variables, limit, continuity, partial derivatives, differentials, directional derivatives, maxima and minima, multiple integrals, Divergence Theorem. (Formerly 3450:223)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:231 Modeling with Algebraic and Transcendental Functions (4 Credits)**

Prerequisites: Completion of MATH 140 with a grade of C- or better or placement test or permission. Modeling and regression with algebraic, exponential, logarithmic, and trigonometric functions; systems of equations and matrices. These topics will be enhanced by the use of CAS. (Formerly 3450:231)

**MATH:240 Mathematical Foundations for Early Childhood Educators (3 Credits)**

Prerequisite: Completion of MATH 140 with a grade of C- or better. A problem-solving and inquiry-based approach to functions and algebra, coordinate and Euclidean geometry, and elementary data analysis. (Formerly 3450:240)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:255 Technical Calculus I (3 Credits)**

Prerequisite: MATH 154 with a grade of C- or better or placement test. The derivative, applications of the derivative, derivatives of the trigonometric, logarithmic and exponential functions. Integration by antidifferentiation. (Formerly 2030:255)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:260 Advanced Trigonometry (2 Credits)**

Prerequisite: MATH 153 or equivalent with a grade of C- or better, or placement test. Horizontal circular curves, vertical curves, and spherical triangles. (Formerly 2030:260)

**MATH:261 Applied Finite Mathematics (3 Credits)**

Prerequisite: MATH 153 with a grade of C- or better, or placement test. Number systems, integer rings, finite fields, number theory algorithms, prime numbers and primality tests, factoring, and random number. (Formerly 2030:216)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:289 Selected Topics in Mathematics (1-3 Credits)**

Prerequisite: Permission. Selected topics of interest in mathematics. (Formerly 3450:289)

**MATH:290 Special Topics: Associate Studies Mathematics (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission. Selected topics on subject areas of interest in associate studies. (Formerly 2030:290)

**MATH:307 Fundamentals of Advanced Mathematics (3 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better. Logic, solving problems, and doing proofs in mathematics. Sets, extended set operations, and indexed family sets, induction. Binary relations. Functions, cardinality. Introductory concepts of algebra and analysis. (Formerly 3450:307)

**MATH:312 Linear Algebra (3 Credits)**

Prerequisite: Completion of MATH 223 with a grade of C- or better. Study of vector spaces, linear transformations, matrices, determinants, inner products, the eigenvalue problem, quadratic forms and canonical forms. (Formerly 3450:312)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:331 Modeling with Calculus (4 Credits)**

Prerequisite: Completion of MATH 231 with a grade of C- or better. Introduction to limits, continuity, differentiation with applications, integration with applications, sequences and series. These topics will be enhanced by the use of CAS. (Formerly 3450:331)

**MATH:335 Introduction to Ordinary Differential Equations (3 Credits)**

Prerequisite: Completion of MATH 223 with a grade of C- or better or permission of instructor. Basic techniques for solving ODEs and systems of ODEs. Analysis of models involving differential equations of first order and simple equations of second order. (Formerly 3450:335)

**Ohio Transfer 36:** Yes

**MATH:341 Geometry and Measurement (3 Credits)**

Prerequisites: Completion of MATH 209 with a grade of C- or better, or MATH 307 with a grade of C- or better and be admitted to the College of Education. Basic Constructions, Polygons, Similarity, Pythagorean Theorem, Circles, Congruence, Perimeters and Areas of Plane Figures, Surface and Volume of Solids, Rigid Motions and Symmetry, Coordinate geometry. (Formerly 3450:341)

**MATH:345 Technical Data Analysis (2 Credits)**

Prerequisite: [MATH 154 or MATH 261] with a grade of C- or better. Data summarization including graphic representation, numerical measures, introduction to probability, confidence intervals and hypothesis testing. (Formerly 2030:345)

**MATH:356 Technical Calculus II (3 Credits)**

Prerequisite: MATH 255 or equivalent with a grade of C- or better, or placement test. Methods and applications of integration, first and second order differential equations and applications, series expansion, Laplace transform, partial derivatives, and double integrals. (Formerly 2030:356)

**Gen Ed:** - Mathematics, Statistic, Logic

**MATH:360 Advanced Mathematics for Surveyors (2 Credits)**

Pre/Corequisite: MATH 255 or MATH 221. This course is designed to prepare surveying majors for the math portion of their professional exam. Topics include matrices, introduction to series, partial derivatives, least squares adjustments, topics in astronomy, and coordinate systems. (Formerly 2030:480)

**MATH:361 Applied Cryptography (3 Credits)**

Prerequisite: A grade of C or better in MATH 261. Symmetric cryptography, modular arithmetic, stream and block ciphers, random numbers, Advanced Encryption Standard, public-key cryptography, key exchange, digital signatures, hash functions, message authentication. (Formerly 2030:361)

**MATH:401 History of Mathematics (3 Credits)**

Prerequisite: Completion of MATH 307 with a grade of C- or better. Origin and development of mathematical ideas. (Formerly 3450:401)

**MATH:410 Advanced Linear Algebra (3 Credits)**

Prerequisite: Completion of MATH 312 with a grade of C- or better. Study of vector spaces, linear transformation, canonical and quadratic forms, inner product spaces. (Formerly 3450:410)

**MATH:411 Abstract Algebra I (3 Credits)**

Prerequisite: Completion of MATH 307 with a grade of C- or better or permission of instructor. Study of groups, rings, fields, integral domains. (Formerly 3450:411)

**MATH:412 Abstract Algebra II (3 Credits)**

Prerequisite: Completion of MATH 411 with a grade of C- or better or permission of instructor. Study of groups, rings, fields, integral domains, vector spaces, field extensions, Galois theory. (Formerly 3450:412)

**MATH:413 Theory of Numbers (3 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better or permission. Euclidean algorithm, unique factorization theorem, congruences, primitive roots, indices, quadratic residues, number-theoretic functions, Gaussian integers and continued fractions. (Formerly 3450:413)

**MATH:415 Combinatorics & Graph Theory (3 Credits)**

Prerequisite: Completion of MATH 222 with a grade of C- or better or permission. Introduction to basic ideas and techniques of mathematical counting; properties of structure of systems. (Formerly 3450:415)

**MATH:420 Mathematical Technology and Communication (3 Credits)**

Prerequisites: Completion of MATH 222 and MATH 312 with grades of C- or better, or permission. Graphical, numerical, and algebraic computation with applications using a variety of mathematical hardware and software: symbolic manipulators, dynamic geometry software, programs, scripts and web-browsers. (Formerly 3450:420)

**MATH:421 Advanced Calculus I (3 Credits)**

Sequential. Prerequisite: Completion of MATH 223 with a grade of C- or better; MATH 307 is highly recommended. Real number system, sequences, series, set theory, continuity, differentiation, integration, partial derivatives, multiple integration, maxima and minima, convergence and uniform convergence, power series, improper integrals, transformations, line and surface integrals. (Formerly 3450:421)

**MATH:422 Advanced Calculus II (3 Credits)**

Sequential. Prerequisite: Completion of MATH 421 with a grade of C- or better or permission of instructor. Real number system, sequences, series, set theory, continuity, differentiation, integration, partial derivatives, multiple integration, maxima and minima, convergence and uniform convergence, power series, improper integrals, transformations, line and surface integrals. (Formerly 3450:422)

**MATH:425 Complex Variables (3 Credits)**

Prerequisite: Completion of MATH 223 with a grade of C- or better. Complex variables; elementary functions, differentiation and analytic functions; integration and Cauchy's theorem; power series and Laurent series; residue theorem; applications such as conformal mappings, inversion of integral transform. (Formerly 3450:425)

**MATH:427 Applied Numerical Methods I (3 Credits)**

Prerequisites: Completion of MATH 222 and CPSC 209 with grades of C- or better or permission. Numerical methods in polynomial interpolation, rootfinding, numerical integration, and numerical linear algebra. (Formerly 3450:427)

**MATH:428 Applied Numerical Methods II (3 Credits)**

Prerequisites: Completion of MATH 335 and MATH 427 with grades of C- or better or permission. Numerical methods in the solution of ordinary and partial differential equations. Numerical differentiation, Runge-Kutta methods, and iterative methods for ODEs, finite differences for PDEs. (Formerly 3450:428)

**MATH:430 Numerical Solutions for Partial Differential Equations (3 Credits)**

Prerequisite: Completion of MATH 428 with a grade of C- or better or equivalent. For advanced undergraduate and graduate students. The study of finite difference and finite element methods for partial differential equations consistency, stability, convergence and computer implementation. (Formerly 3450:430)

**MATH:432 Partial Differential Equations (3 Credits)**

Prerequisite: Completion of MATH 335 with a grade of C- or better. The classical initial value and boundary value problems of mathematical physics developed and solved using Fourier series and integral transforms. (Formerly 3450:432)

**MATH:435 Systems of Ordinary Differential Equations (3 Credits)**

Prerequisites: Completion of MATH 335 and [MATH 312 or MATH 428 with grades of C- or better] or permission. Analysis, solution of systems of equations, linear, nonlinear. Topics: stability theory, perturbation methods, asymptotic methods, applications from physical, social sciences. (Formerly 3450:435)

**MATH:436 Mathematical Models (3 Credits)**

Prerequisite: Completion of MATH 335 with a grade of C- or better, and a six-hour sequence in an approved applied area, or permission. Formulation and analysis of mathematical models in social and physical sciences. Analysis of deterministic and stochastic models. Topics may include stochastic processes, linear programming, graph theory, theory of measurement. (Formerly 3450:436)

**MATH:438 Advanced Engineering Mathematics I (3 Credits)**

Prerequisites: Completion of MATH 335 and MATH 312 with grades of C- or better or permission. Matrices, eigenvalue problems, systems of ODEs, vector analysis, complex variables. (Formerly 3450:438)

**MATH:439 Advanced Engineering Mathematics II (3 Credits)**

Prerequisites: Completion of MATH 335 and MATH 312 with grades of C- or better or permission. Special functions, Fourier series and transforms, PDEs. (Formerly 3450:439)

**MATH:441 Concepts in Geometry (4 Credits)**

Prerequisite: [MATH 208 or MATH 209 or MATH 307] with a grade of C- or better, or permission of instructor. This course includes the study of axiomatic, modern, and transformational geometry. In particular: the foundations of geometry (points, lines, segments, angles, polygons, and circles), Euclidean and non-Euclidean geometry. (Formerly 3450:441)

**MATH:445 Introduction to Topology (3 Credits)**

Prerequisite: Completion of MATH 307 with a grade of C- or better or permission of instructor. Introduction to topological spaces and topologies, mappings, cardinality, homeomorphisms, connected spaces, metric spaces. (Formerly 3450:445)

**MATH:461 Applied Cryptanalysis (3 Credits)**

Prerequisite: MATH 361 with a grade of C or better. Cryptanalysis concepts; cryptanalysis of symmetric and public key cryptosystems, key exchange systems, and digital signatures; hash function collision resistance; cryptanalysis with quantum computer. (Formerly 2030:461)

**MATH:489 Topics in Mathematics (1-4 Credits)**

(May be repeated for a total of 12 credits) Prerequisite: Permission of instructor. Selected topics in mathematics and applied mathematics at an advanced level. (Formerly 3450:489)

**MATH:491 Workshop in Mathematics (1-4 Credits)**

(May be repeated) Group studies of special topics in mathematics and applied mathematics. May not be used to meet undergraduate or graduate major requirements. May be used for elective credit. (Formerly 3450:491)

**MATH:497 Individual Reading: Mathematics (1-2 Credits)**

Prerequisites: senior standing and permission. Mathematics or applied mathematics majors only. Directed studies designed as an introduction to research problems, under guidance of selected faculty member. (Formerly 3450:497)

**MATH:498 Senior Honors Project: Mathematics (1-3 Credits)**

Prerequisite: Senior standing or higher in the Honors program and permission of instructor. Directed study for senior student in the Honors Program. An introduction to research problems in mathematics and applied mathematics under the guidance of selected faculty. May be repeated for up to six credits. (Formerly 3450:498)

## Mechanical Engineering (MECE)

**MECE:165 Tools for Mechanical Engineering (3 Credits)**

Corequisite: MATH 149. Personal computer DOS system, word processing, spreadsheet, computer-aided drafting, math calculating package, mechanical graphics, and introduction to mechanical engineering program and curriculum. (Formerly 4600:165)

**MECE:203 Dynamics (3 Credits)**

Prerequisites: MATH 222, PHYS 291, and CIVE 201. Corequisite: MATH 223. Kinematics and kinetics of particles and rigid bodies. Principles of work, energy, momentum and impulse. (Formerly 4600:203)

**MECE:260 Engineering Analysis I (2 Credits)**

Prerequisite: MATH 222. Corequisite: MATH 223. Introduction to numerical methods in mechanical engineering; applications of computer tools (MatLab). (Formerly 4600:260)

**MECE:300 Thermodynamics I (3 Credits)**

Prerequisites: MATH 223 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: PHYS 292. Basic concepts of thermodynamics. Pure substances, closed and open systems, the first and second laws of thermodynamics. Entropy, vapor power cycles and vapor compression refrigeration. (Formerly 4600:300)

**MECE:301 Thermodynamics II (2 Credits)**

Prerequisites: MATH 335, MECE 300 and admission to an engineering major within the College of Engineering and Polymer Science. Absorption refrigeration. Gas cycles. Thermodynamics of state, gas mixtures and gas-vapor mixtures. Combustion. (Formerly 4600:301)

**MECE:305 Thermal Science (2 Credits)**

Prerequisite: MATH 223 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: PHYS 292. Credit not allowed for both 300 and 305. Introduction to first and second laws of thermodynamics, perfect gas relationships, equations of state, cycle analysis. Introduction to conduction, convection and radiation heat transfer. (Formerly 4600:305)

**MECE:310 Fluid Mechanics I (2 Credits)**

Prerequisites: MATH 223, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. Properties and behavior of gases and liquids at rest and in motion. Energy equation. Flow in conduits. Forces on body submerged in moving fluid. Dimensional analysis and similitude. (Formerly 4600:310)

**MECE:311 Fluid Mechanics II (3 Credits)**

Prerequisites: MATH 335, MECE 310 and admission to an engineering major within the College of Engineering and Polymer Science. Navier-Stokes equations. The boundary layer. External viscous flows and potential flow. Fundamentals of compressible flow. Concepts of computational fluid dynamics. (Formerly 4600:311)

**MECE:315 Heat Transfer (3 Credits)**

Prerequisites: MECE 300, [MECE 310 or BMEN 360], [MECE 360 or BMEN 220] and admission to an engineering major within the College of Engineering and Polymer Science. Fundamentals of heat transfer by conduction, convection and radiation. (Formerly 4600:315)

**MECE:321 Kinematics of Machines (2 Credits)**

Prerequisites: MECE 165, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. Displacements, velocities, accelerations and introduction to plan motion mechanisms. Introduction to design of gears, gear trains and cams. (Formerly 4600:321)

**MECE:336 Analysis of Mechanical Components (3 Credits)**

Prerequisites: CIVE 202 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: MATH 335. Analysis of stress and strain at a point. Mohr's circles, shear centers, elastic instability. Stresses in thick and thin cylinders. Fatigue analysis. (Formerly 4600:336)

**MECE:337 Design of Mechanical Components (3 Credits)**

Prerequisites: [MECE 336 or AESE 336] and admission to an engineering major within the College of Engineering and Polymer Science. Application of stress analysis to design of fasteners, welds, springs, ball bearings and gears. Introduction to journal bearings and lubrication. Component design projects. (Formerly 4600:337)

**MECE:340 Systems Dynamics & Response (3 Credits)**

Prerequisites: MATH 335, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science. A unified approach to modeling, analysis, response and stability of engineering systems: analog, digital and hybrid computer simulation of interdisciplinary engineering problems are included. (Formerly 4600:340)

**MECE:360 Engineering Analysis II (2 Credits)**

Prerequisites: MATH 335, MECE 260 and admission to an engineering major within the College of Engineering and Polymer Science. Numerical methods of solution of mechanical engineering problems. (Formerly 4600:360)

**MECE:380 Introduction to Materials Science and Engineering (2 Credits)**

Prerequisites: CHEM 153 and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: CIVE 202. Introduction to metallurgy and advanced engineering materials including polymers, composites and ceramics. Topics include structure of materials, macroscopic mechanical behavior, phase change and heat treatment of metals, and theories of failure. (Formerly 4600:380)

**MECE:400 Thermal System Components (3 Credits)**

Prerequisites: MECE 315, [MECE 311 or MECE 411], and full admission to an engineering program in the College of Engineering and Polymer Science. Performance analysis and design of basic components of thermal energy exchange and conversion systems. Components studied include heat exchangers, pumps, compressors, turbines and expansion engines. (Formerly 4600:400)

**MECE:402 Senior Seminar (1 Credit)**

Prerequisite: Admission to the College of Engineering. Corequisites: MECE 400, MECE 441, MECE 460 and MECE 461. Students need further education in ethics, codes and standards, intellectual property, product liability, safety issues, technical writing, diversity, and job opportunities. (Formerly 4600:402)

**MECE:410 Heating & Air Conditioning (3 Credits)**

Prerequisite: MECE 301 or permission. Corequisite: MECE 315 or permission. Thermodynamics of gas mixtures. Design and selection of air conditioning equipment. Control of gas mixtures, heating, cooling and humidity. (Formerly 4600:410)

**MECE:411 Compressible Fluid Mechanics (3 Credits)**

Prerequisites: MECE 300, MECE 310 and full admission to an engineering program in the College of Engineering and Polymer Science. Subsonic and supersonic flow in nozzles, diffusers and ducts. One-dimensional reactive gas dynamics. Prandtl-Myer theory. Applications to design and analysis of compressors, turbines and propulsion devices. (Formerly 4600:411)

**MECE:412 Fundamentals of Flight (3 Credits)**

Prerequisites: [MECE 311 or MECE 411], MECE 413 and full admission to an engineering program in the College of Engineering and Polymer Science. Introduction to basic aerodynamics, airplane performance, stability and control, astronautics and propulsion. Design considerations are emphasized. (Formerly 4600:412)

**MECE:413 Introduction to Aerodynamics (3 Credits)**

Prerequisites: MECE 300, MECE 310, and full admission to an engineering program in the College of Engineering and Polymer Science. Introduction of aerodynamic concepts; includes conformal transformations, theory of thin airfoils, two-dimensional airfoil theory, wings of finite span, lifting line theories, lumped vortex, vortex lattice, and panel methods. (Formerly 4600:413)

**MECE:414 Introduction to Aerospace Propulsion (3 Credits)**

Prerequisites: [MECE 311 or MECE 411] and full admission to an engineering program in the College of Engineering and Polymer Science. Introduction to propulsion systems currently used in aerospace fields; propulsion principles for turbojets, turbofans, ramjets, chemical rockets, and electrical rocket propulsion. (Formerly 4600:414)

**MECE:415 Energy Conversion (3 Credits)**

Prerequisites: MECE 301 or permission. Corequisite: MECE 315 or permission. Topics from fields of internal combustion engines, cycle analysis, modern conversion devices. (Formerly 4600:415)

**MECE:416 Heat Transfer Processes (3 Credits)**

Prerequisite: MECE 315 or permission. Analysis, design of extended surfaces. Natural convection and mixed convection, combined modes of heat transfer and heat transfer with phase changes. (Formerly 4600:416)

**MECE:420 Introduction to Finite Element Method (3 Credits)**

Prerequisites: CIVE 202, [MECE 315 or BMEN 362], and admission to an engineering major within the College of Engineering and Polymer Science. Introduction to matrix and finite element methods. Stiffness and flexibility formulations in solid mechanics and thermal sciences. Basic finite element methods and its implementation. (Formerly 4600:420)

**MECE:422 Experimental Stress Analysis I (3 Credits)**

Prerequisite: MECE 336 or permission. Experimental methods of determining stress or strain: brittle lacquer, strain gages, photoelasticity, full field techniques. (Formerly 4600:422)

**MECE:430 Machine Dynamics (3 Credits)**

Prerequisite: MECE 321 or permission. Static and dynamic forces in machines, products of inertia, dynamic equivalence, flywheels. Balancing of rotating, reciprocating, cyclic plane motion. Computer simulation of transient mechanism dynamics, other topics in advanced dynamics. (Formerly 4600:430)

**MECE:431 Fundamentals of Mechanical Vibrations (3 Credits)**

Prerequisites: MATH 335, MECE 203 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Undamped and forced vibrations of systems having one or two degrees of freedom. (Formerly 4600:431)

**MECE:432 Vehicle Dynamics (3 Credits)**

Prerequisites: MECE 203 and MATH 335 or permission. Application of dynamic systems analysis techniques to road vehicles. Newtonian and Lagrangian methods. Tire/road interface. Ride characteristics, handling and stability. Digital simulation. (Formerly 4600:432)

**MECE:440 System Dynamics & Control (4 Credits)**

See department for course description. (Formerly 4600:440)

**MECE:441 Control Systems Design (3 Credits)**

Prerequisites: MECE 340 and admission to an engineering major within the College of Engineering and Polymer Science or permission. Methods of feedback control design such as minimized error, root-locus, frequency domain. Compensation techniques. Multivariable and nonlinear design methods and computer-aided control design. (Formerly 4600:441)

**MECE:442 Industrial Automatic Control (3 Credits)**

Prerequisite: MECE 441 or permission. Operation of basic control mechanisms. Study of mechanical, hydraulic, pneumatic, fluidic control systems, including application areas. Tuning of control devices for optimum performance of system. Case studies on control applications from industry, e.g. boilers, furnaces, process heaters. (Formerly 4600:442)

**MECE:443 Optimization Methods in Mechanical Engineering (3 Credits)**

Prerequisite: MECE 360 or permission. Development and method of solution of optimization problems in mechanical engineering. The use of dynamic programming and operational research methods for optimization including computer utilization and applications. (Formerly 4600:443)

**MECE:444 Robot Design, Control & Application (3 Credits)**

Prerequisites: MECE 321, MECE 441 and admission to a degree-granting program in the College of Engineering and Polymer Science. Robot design and control. Kinematic transformations, velocities and accelerations, path trajectories and dynamics, control and sensing in robotics. The automated factory with robot applications. (Formerly 4600:444)

**MECE:450 Introduction to Computational Fluid Flow & Convection (3 Credits)**

Prerequisites: MECE 315 and MECE 360 or permission. Numerical modeling of fluid/thermal systems; numerical solution of the momentum and thermal boundary layer equations; flow simulation using advanced heat transfer/fluid/graphics packages. (Formerly 4600:450)

**MECE:460 Concepts of Design (3 Credits)**

Prerequisites: MECE 337 and admission to an engineering major within the College of Engineering and Polymer Science. Design process. Creativity and inventiveness. Tools of decision making, engineering economics, reliability, optimization. Case studies. (Formerly 4600:460)

**MECE:461 ME Senior Design Project I (2 Credits)**

Prerequisite: Admission to an engineering major within the College of Engineering and Polymer Science. Pre/Corequisites: MECE 301, MECE 340 and MECE 337. Detailed senior design project. Design, feasibility, and cost analysis. (Formerly 4600:461)

**Gen Ed:** - Capstone

**MECE:462 Pressure Vessel Design (3 Credits)**

Prerequisite: MECE 336 or permission. Introduction to modern pressure vessel technology. Topics include basic structural considerations, materials and their environment and design-construction features. (Formerly 4600:462)

**MECE:463 Computer Aided Design & Manufacturing (3 Credits)**

Prerequisites: MECE 165 and MECE 360 or permission. The use of computer systems to assist in the creation, modification, analysis, or optimization of engineering designs, and to plan, manage, and control manufacturing plants. (Formerly 4600:463)

**MECE:465 Technology Based Startups: Ideate, Invent and Innovate (3 Credits)**

Prerequisite: Permission of the department. This course will provide students with the opportunity to extend their fundamental knowledge of entrepreneurship within the specific interdisciplinary context of technology commercialization. Working in interdisciplinary groups the student teams/groups will be taught design thinking approaches that put the customer at the center of the creative process. Brainstorming exercises will be held to solve open ended problems on special topics (e.g. biomimicry, software, medical devices, sensors etc.) so that teams can ideate and conceptualize product, process or service based ideas that solve real problems. In some cases, students can be assigned known research technologies and learn how to come up with applications that have commercialization potential. The evaluation will include, but not be limited to, evaluation of the underlying technology, determination of potential customer value proposition(s), determination of market feasibility, examination of licensing/spin-off options, identification of potential licensees, estimation of potential market size and value, and development of recommendations for further funding, growth (or abandonment). By working in teams, students will learn how to create/invent a product prototype, learn how to listen to potential customers and come back to describe the value proposition that will make the startup successful. (Formerly 4600:465)

**MECE:471 ME Senior Design Project II (2 Credits)**

Prerequisites: MECE 461 and admission to an engineering major within the College of Engineering and Polymer Science. Detailed senior design project. Final design and implementation. (Formerly 4600:471)

**MECE:480 Materials Selection in Design (3 Credits)**

Prerequisites: [CHEE 305 or MECE 380] and admission to an engineering major within the College of Engineering and Polymer Science or permission. Materials selection from the perspective of design including material properties, processing approaches, shape considerations, hybrid materials, and tradeoffs including environmental and cost. (Formerly 4600:480)

**MECE:482 Fundamentals of Composite Processing and Mechanics (3 Credits)**

Prerequisites: MATH 335, CIVE 202, and admission to an engineering major within the College of Engineering and Polymer Science. Polymer-matrix composite processing, manufacturing, and mechanics. The emphasis is on discontinuous fiber reinforcements. (Formerly 4600:482)

**MECE:483 Measurements Laboratory (2 Credits)**

Prerequisites: MECE 300, MECE 310, and full admission to an engineering program in the College of Engineering and Polymer Science. Development of methods to measure temperature, pressure, flow rate, viscosity and motion. Includes both lecture and laboratory experience and emphasizes calibration and accuracy of appropriate instruments. (Formerly 4600:483)

**MECE:484 Mechanical Engineering Laboratory (2 Credits)**

Prerequisites: MECE 301, MECE 311, MECE 315, MECE 380, MECE 431, MECE 483, and admission to an engineering major within the College of Engineering and Polymer Science. Corequisite: MECE 441. Laboratory experiments in area of dynamics, vibrations, thermodynamics, fluids, heat transfer and controls. (Formerly 4600:484)

**MECE:485 3D Printing and Additive Manufacturing (3 Credits)**

Prerequisites: MECE 165, MECE 360, and junior or greater standing or permission. Introduction to 3D Printing and Additive Manufacturing including various processes, materials, and applications; Hands-on practice and design/manufacturing project; State of the art of 3D Printing. (Formerly 4600:485)

**MECE:486 Special Topics: Mechanical Engineering (1-3 Credits)**

Prerequisite: Permission. Brief description of current content to be announced in schedule of classes. (Formerly 4600:486)

**MECE:497 Honors Project in Mechanical Engineering (2 Credits)**

Prerequisites: MECE 461 and admission to an engineering major in the College of Engineering and Polymer Science. Capstone design project in thermal science, mechanics or a research topic relevant to mechanical engineering, supervised by faculty member of the department. (Formerly 4600:497)

**MECE:498 Experimental Investigation in Mechanical Engineering (1-2 Credits)**

Individual independent laboratory investigations in areas relevant to mechanical engineering. Student suggests a project and makes appropriate arrangements with faculty for supervision. (Formerly 4600:498)

## Mechanical Engineering Technology (MCET)

**MCET:100 Survey of Mechanical Engineering Technology (2 Credits)**

Corequisite: MATH 154. Overview of the Mechanical Engineering Technology degree programs; pre-testing; career opportunities; professional societies & certification; standards; and useful tools of the MET field. (Formerly 2920:100)

**MCET:101 Introduction to Mechanical Design (3 Credits)**

Prerequisite: AMET 140 or MCET 121. Corequisites: [AMET 230 or MCET 100] and MATH 154. Topics in engineering drawing: conventions, sections, dimensioning and tolerancing. Detail drawings, subassembly and assembly drawings. Introduction to various mechanical components and mechanical design tools. (Formerly 2920:101)

**MCET:102 Introduction to Engineering Technology (2 Credits)**

This introductory course stresses skills needed for academic success. Discussion of fields in engineering technology, job searches, calculators, and data measurement and analysis are included. (Formerly 2820:100)

**MCET:110 Physical Science for Technicians (3 Credits)**

Elementary presentation of theory and facts of general chemistry and physics (excluding electricity). Includes atomic structure, chemical reactions, energy, electromagnetic radiation, sound and mechanics. (Formerly 2820:110)

**MCET:121 Fundamentals of Engineering Drawing (3 Credits)**

Fundamentals of engineering drawing using freehand sketching and CAD; orthographic and isometric projections, sectioning, assemblies, and introduction to geometric dimensioning and tolerancing. Laboratory. (Formerly 2920:121)

**MCET:130 Introduction to Hydraulics and Pneumatics (3 Credits)**

Principles of hydrostatic forces, pressure, density, viscosity, incompressible and compressible fluids. Principles of hydraulic and pneumatic devices and systems. (Formerly 2920:130)

**MCET:131 Software Applications for Technology (1 Credit)**

Prerequisite: MATH 153. Word processing and spreadsheets used within technical applications. This course focuses on using software for technical reports and data analysis. Laboratory. (Formerly 2820:131)

**MCET:142 Introduction to Material Technology (3 Credits)**

Fundamental properties of materials. Material testing. Applications of methods to control material properties. (Formerly 2920:142)

**MCET:243 Kinematics (3 Credits)**

Prerequisite: COET 125. Corequisite: MCET 101. Study of rigid-body motions of simple linkages, cams, gears, and gear trains. Vector solutions emphasized. Industrial applications presented and computers used to analyze mechanisms. (Formerly 2920:243)

**MCET:245 Mechanical Design II (5 Credits)**

Prerequisites: MCET 101, MCET 243, and COET 225. Corequisite: MCET 142. Advanced stress and fatigue analysis, theories of failure. Design of machine elements: gears, keys and keyways. Experimental stress analysis and design projects. (Formerly 2920:245)

**MCET:249 Applied Thermal Energy I (2 Credits)**

Prerequisites: MATH 255 and PHYS 164. Thermodynamic principles. Study of power cycles. Applications in I.C. engines, compressors, steam power cycles, refrigeration. (Formerly 2920:249)

**MCET:251 Fluid Power (2 Credits)**

Prerequisites: PHYS 160 and PHYS 164. Statics and dynamics of fluids. Viscosity, energy and momentum relationships. Fluid machinery and measurements. (Formerly 2920:251)

**MCET:252 Thermo-Fluids Laboratory (1 Credit)**

Prerequisite: MCET 251. Corequisite: MCET 249. Laboratory experiments in applied thermal energy and fluid power. (Formerly 2920:252)

**MCET:290 Special Topics: Mechanical Engineering Technology (1-3 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in Mechanical Engineering Technology. (May be repeated for a total of four credits) (Formerly 2920:290)



**MCET:310 Economics of Technology (3 Credits)**

Prerequisite: 64 credits or permission. Economic principles as they pertain to technology. Equivalence, alternatives, costs, depreciation, valuation. Project studies. (Formerly 2920:310)

**MCET:312 Programming for Technologists (2 Credits)**

Prerequisites: MCET 131 and MATH 255. A study of a technical programming language with applications in engineering technology. Limited to students in Engineering & Science Technology Department programs. (Formerly 2820:310)

**MCET:344 Dynamics (3 Credits)**

Prerequisites: MCET 243, MATH 255, and COET 125. Introduces particle dynamics, displacement, velocity, and acceleration of constrained rigid bodies in plane motion. Kinetics of particles and rigid bodies, work and energy, mechanical vibration. (Formerly 2920:344)

**MCET:346 Mechanical Design III (4 Credits)**

Prerequisites: MCET 245 and MCET 344. Continuation of design of mechanical components: gears, bearings, shafts, springs, and fasteners. Special topics presented will be coordinated with assigned design projects. (Formerly 2920:346)

**MCET:347 Production Machinery & Processes (3 Credits)**

Prerequisites: MATH 255 and [AMET 110 or MCET 142]. Study of manufacturing processes (casting, forging, welding, forming sheet metal), integrating material technology, mechanical design, and mechanics of materials. (Formerly 2920:347)

**MCET:365 Applied Thermal Energy II (3 Credits)**

Prerequisites: MATH 255, MCET 249, and MCET 251. Review and application of basic thermodynamic principles used in designing automotive engines and refrigeration equipment. Introduction to heat transfer, heating, ventilation, and air conditioning. (Formerly 2920:365)

**MCET:370 Plastics Design & Process (3 Credits)**

Prerequisite: CHEM 151. Introduction to structure and properties of polymers, selection based on properties and cost, design of products and tools, basic principles of the major processes. (Formerly 2920:370)

**MCET:402 Mechanical Projects (2 Credits)**

Prerequisites: MCET 310, MCET 365, MCET 370, MCET 490, and [AMET 301 or MCET 405]. Individual projects emphasizing creative technical design. (Formerly 2920:402)

**MCET:405 Introduction to Industrial Machine Control (3 Credits)**

Prerequisite: EEET 370. Principles and design of industrial machine control systems. Application oriented study of typical control devices. Utilization of programmable controllers as the system logic controllers. (Formerly 2920:405)

**MCET:470 Plastics Processing & Testing (2 Credits)**

Prerequisite: MCET 370 or permission. Use of basic polymer testing methods. Setup and operation of modern molding and extrusion equipment. Basic troubleshooting procedures. Study of processing effects on final properties. (Formerly 2920:470)

**MCET:490 Mechanical Engineering Technology Senior Seminar (1 Credit)**

Prerequisites: MCET 346 and MCET 347. An opportunity for post-testing of all MET students and the presentation of social and professional responsibilities, diversity, professional certification, life-long learning, and career opportunities. (Formerly 2920:490)

**MCET:497 Senior Honors Project in Mechanical Engineering Technology (1-3 Credits)**

Prerequisites: Senior standing in Honors Program, permission of area honors preceptor, and major in mechanical technology. Independent research leading to completion of senior honors thesis or other original work. (May be repeated for a total of six credits) (Formerly 2920:497)

**MCET:498 Independent Study in Mechanical Engineering Technology (1-4 Credits)**

Prerequisite: Permission. Directed study in a special field of interest chosen by the student in consultation with the instructor. (May be repeated for a total of six credits). (Formerly 2920:498)

## Middle Level Education (EDML)

**EDML:100 Orientation to Middle Level Education (0 Credits)**

Prerequisite: Admission to Middle Level Education Program. Corequisite: EDFN 200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development. (Formerly 5250:100)

**EDML:300 Middle Level Education (3 Credits)**

Prerequisite or corequisite: EDCI 308. Reviews nature/needs of early adolescents; developmentally appropriate middle schooling; philosophy of school organizations; curriculum, pedagogy, and assessment; cultural and community contexts. 15 field hours. (Formerly 5250:300)

**EDML:333 Teaching Science to Middle Level Learners (4 Credits)**

Prerequisite: EDCI 308. A methods course for the prospective teacher to develop a point of view toward science teaching and strategies for effective standards-based science teaching. (15 field hours) (Formerly 5250:333)

**EDML:338 Teaching Social Studies to Middle Childhood (3 Credits)**

Prerequisite: EDCI 308. A methods course to examine the school social studies curriculum and strategies for effective teaching. (15 field hours) (Formerly 5250:338)

**EDML:342 Teaching Math to Middle Level Learners (3 Credits)**

Prerequisite: EDCI 308. Modern strategies of psychology and methodology in middle childhood mathematics on exploratory, structural and mastery levels of learning. (15 field hours) (Formerly 5250:342)

**EDML:350 Teaching Language Arts & Media to Middle Level Learners (3 Credits)**

Prerequisites: EDCI 240, EDCI 241, and EDCI 308. This course provides preservice middle grade teachers with strategies for integrating the language arts in the areas of reading, writing, speaking, listening, media and drama. (15 Field Hours) (Formerly 5250:350)

**EDML:351 Modes of Writing for the Middle Grades (3 Credits)**

Prerequisite: Admission to the Teacher Education Program. This course will provide middle school languages arts teachers the understandings and skills necessary to teach writing in varieties of forms and modes including newswriting. (Formerly 5250:351)

**EDML:480 Special Topics: Middle School (1-3 Credits)**

Prerequisite: Permission of instructor. (May be repeated with change of topic) Group study of special topics in middle childhood of critical contemporary concern in professional education. (Formerly 5250:480)

**EDML:490 Workshop: Middle Level (1-3 Credits)**

Elective workshop for Middle Childhood majors who would like to pursue further refinement of teaching skills. Emphasis in demonstrations of teaching techniques and development. (Formerly 5250:490)

**EDML:495 Student Teaching: Grades 4-6 (5 Credits)**

Planned teaching experience in schools selected and supervised by the Office of Field Experience. (Formerly 5250:495)

**EDML:496 Student Teaching: Grades 7-9 (6 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio; senior status. Corequisite: EDML 498. Planned teaching experience in schools selected and supervised by the Office of Field Experiences. (Formerly 5250:496)

**EDML:497 Independent Study (1-3 Credits)**

Prerequisites: Permission of advisor and department head. Specific area of curriculum investigation pertinent to middle level education as determined by student's academic needs. (Formerly 5250:497)

**EDML:498 Student Teaching Colloquium: Middle Grades (3 Credits)**

Corequisite: EDML 499. The course provides a forum to discuss professional issues related to student teaching, and to support students as they complete their capstone project. The colloquium will explore a broad range of topics concerning the field of education, within the structure of the Ohio Teacher Standards. Candidates will explore the challenges encountered in classrooms, initiate reflective practice, and nurture their commitment to lifelong learning. (Formerly 5250:498)

**EDML:499 Student Teaching: Middle Level Education (9 Credits)**

Corequisite: EDML 498. Student teaching is a planned, all-day, full time teaching experience. It is coordinated and given oversight by LeBron James Family Foundation School of Education, in an approved public or private school for a total of 16 weeks. (Formerly 5250:499)

## Military Science (MILS)

**MILS:100 Introduction to the Army and Critical Thinking (1 Credit)**

Study of the mission of the Army, the principles of basic military leadership and management, land navigation, and opportunities in the Army. A geographical and cultural examination of the countries where U.S. soldiers are located. Leadership laboratory required. No military obligation incurred. (Formerly 1600:100)

**MILS:101 Introduction to the Profession of Arms (1 Credit)**

Study of the principles and techniques of military leadership and human resource management. Introduction to drill and ceremony, small unit tactics, briefing techniques, and public speaking. Leadership laboratory required. No military obligation incurred. (Formerly 1600:101)

**MILS:110 Leadership and Personal Development Laboratory (1 Credit)**

Students will participate in labs as a member of a cadet squad, learning to work with new people and gaining confidence through engaging in new and challenging situations that reinforce classroom instruction. (Formerly 1600:110)

**MILS:111 Introduction to Tactical Leadership Laboratory (1 Credit)**

Students will participate in labs as a member of a cadet squad, learning to work with new people and gaining confidence through engaging in new and challenging situations that reinforce classroom instruction. This Laboratory session will focus more on tactical training. (Formerly 1600:111)

**MILS:200 Innovative Team Leadership (2 Credits)**

Study of the principles of war and the art of leadership. Basic military skills taught through practical applications in marksmanship, map reading, first aid, and drill and ceremony. Leadership laboratory required. No military obligation incurred. (Formerly 1600:200)

**MILS:201 Foundations of Tactical Leadership (2 Credits)**

Study and application of the Leadership Development Program (LDP). Introduction to tactics, patrolling, and basic military skills. Leadership laboratory required. No military obligation incurred. (Formerly 1600:201)

**MILS:210 Innovative Team Leadership Laboratory (1 Credit)**

In their second year of military Science, students will begin to have a bigger leadership role within the ROTC organization and will participate in labs as a team leader. They will be responsible for the readiness and accountability of the first year cadets and are expected to begin to show confidence in leading others. (Formerly 1600:210)

**MILS:211 Foundations of Tactical Leadership Laboratory (1 Credit)**

Students will have a bigger leadership role within the ROTC organization and will participate in labs as a team leader. They will be responsible for the readiness and accountability of the first year cadets and are expected to begin to show confidence in leading others and in conducting tactical exercises. (Formerly 1600:211)

**MILS:300 Adaptive Team Leadership (3 Credits)**

Prerequisites: MILS 100, MILS 101, MILS 200, and MILS 201. Study in the application of military tactics, military history, military briefing techniques and equipment. Practical work with operations orders and planning, organizing, and executing training. Leadership laboratory required. (Formerly 1600:300)

**MILS:301 Leadership Under Fire (3 Credits)**

Prerequisite: MILS 300. Study of leadership, leadership counseling and tactics at the small-unit level. Practical work with land navigation, marksmanship training, squad and platoon movement, and battlefield survival. Leadership laboratory required. (Formerly 1600:301)

**MILS:310 Adaptive Team Leadership Laboratory (1 Credit)**

Prerequisite: MILS 211. Corequisite: MILS 300. In their third year, as students enter the ROTC Advanced course, students will take on a much larger leadership role; responsible for squads and platoons of cadets as well as training them on the subject matter of each lab. They learn to motivate, instill confidence, and take responsibility for the quality of the training and activities of the labs. (Formerly 1600:310)

**MILS:311 Leadership Under Fire Laboratory (1 Credit)**

Prerequisite: MILS 310. Corequisite: MILS 301. In their third year, as students enter the ROTC Advanced course, students will take on a much larger leadership role; responsible for squads and platoons of cadets as well as training them on the subject matter of each lab. They learn to motivate, instill confidence, and take responsibility for the quality of the training and activities of the labs. (Formerly 1600:311)

**MILS:400 Developing Adaptive Leaders (3 Credits)**

Prerequisites: MILS 300 and MILS 301. Intensive investigation of the leadership process to include applicatory work emphasizing officer ethics, duties, and responsibilities. Management and supervisory skills. Practical experience with the Leadership Development Program (LDP). Leadership laboratory required. (Formerly 1600:400)

**MILS:401 Leadership in a Complex World (3 Credits)**

Prerequisites: MILS 300 and MILS 301. Study of officer leadership and managerial responsibilities. Study of Army command organization and procedures, training management, personnel system, Uniform Code of Military Justice, and continued emphasis on counseling and human relations. Leadership laboratory required. (Formerly 1600:401)

**MILS:410 Developing Adaptive Leaders Laboratory (1 Credit)**

Prerequisite: MILS 311. Corequisite: MILS 400. Senior ROTC students are responsible for planning, managing, and supervising leadership labs for the entire cadet Battalion, as well as acquiring the necessary resources and equipment required for training (Formerly 1600:410)

**MILS:411 Leadership in a Complex World Laboratory (1 Credit)**

Prerequisite: MILS 410. Corequisite: MILS 401. Senior ROTC students are responsible for planning, managing, and supervising leadership labs for the entire cadet Battalion, as well as acquiring the necessary resources and equipment required for training. They will later utilize the experience gained in leading cadets to aid them in leading United States Army Soldiers. (Formerly 1600:411)

**MILS:490 Special Topics in Military Science (1-3 Credits)**

Prerequisite: Permission. (May be repeated for a maximum of six credits) Content varies with special topics. Texts to be selected according to topic and will use relevant library periodicals and journals. Existing library resources are adequate to support the course. Basic Camp, Advanced Camp, Airborne, and other specialty schools qualify for course credit. (Formerly 1600:490)

**MILS:491 United States Military History (3 Credits)**

Prerequisite: Permission of the department. The ROTC American military history course traces North American military history, theory, doctrine, strategy and tactics from pre-Revolutionary period to the present. Throughout the course, students will be introduced to U.S. Army theory, doctrine, the link between National Strategy and tactical application through the study of various wars and battles. The course is designed to include multiple opportunities for student-centered learning, to include, but not limited to student reading assignment; homework assignments; homework assignment, practical exercises and case studies; student-delivered briefings and battle analysis; and a variety of student assessments such as quizzes, a mid-term and final exam. This course is part of the US Army ROTC curriculum developed for all Army ROTC programs. (Formerly 1600:491)

## Modern Languages (MODL)

**MODL:101 Beginning Modern Language I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3500:101)

**MODL:102 Beginning Modern Language II (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3500:102)

**MODL:201 Intermediate Modern Language I (3 Credits)**

Sequential. Prerequisite: MODL 102 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3500:201)

**MODL:202 Intermediate Modern Language II (3 Credits)**

Sequential. Prerequisite: MODL 201 or equivalent. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3500:202)

**MODL:422 Modern Languages: Special Topics in Advanced Language Skills, or Culture, or Literature (1-4 Credits)**

Prerequisite: Modern Languages MODL 202 or equivalent. Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3500:422)

**MODL:490 Workshop in Modern Languages (1-4 Credits)**

Prerequisite: Permission of instructor. (May be repeated for a total of 8 credits) Group studies of special topics in modern languages. (Formerly 3500:490)

**MODL:497 Individual Readings in Modern Languages (1-3 Credits)**

Prerequisites: MODL 202 and permission of department chair. (Formerly 3500:497)

**MODL:498 Senior Honors Project (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission. Open only to language major enrolled in Honors Program. Independent study leading to completion of senior honors thesis or other original work. (Formerly 3500:498)

## Music - School of (MUSIC)

**MUSIC:100 Fundamentals of Music (2 Credits)**

Introduction of basic notation and development of functional music reading and keyboard skills. Conducted in electronic keyboard laboratory with computer-assisted instruction available. For non-music majors only, with little or no previous musical training. (Formerly 7500:100)

**MUSIC:101 Introduction to Music Theory (2 Credits)**

Prerequisite: Undergraduate Theory Placement Examination. Designed for prospective music major to correct deficiencies in theory background as determined through department placement testing. Includes classroom instruction and computer assisted instruction in basic notation, scales, meter, key signatures, ear training and basic familiarity with the keyboard. Credit not applicable toward music degree. (Formerly 7500:101)

**MUSIC:102 Introduction to Music Education (2 Credits)**

Prerequisites: MUSIC 121 and MUSIC 154. Overview of the music teaching profession and its processes. Screening of degree candidates is built into the course with clinical field experience. (Formerly 7500:102)

**MUSIC:103 Trends in Jazz (2 Credits)**

An overview of the first 100 years of jazz music with emphasis on major figures and styles central to the development of jazz. This course is specifically designed for the non-music major. (Formerly 7500:103)

**MUSIC:104 Class Piano I (2 Credits)**

Prerequisite: MUSIC 101. Designed for student with no previous keyboard experience to learn rudimentary keyboard skills such as playing scales, chords, arpeggios and melodic patterns as well as simple music. (Formerly 7500:104)

**MUSIC:105 Class Piano II (2 Credits)**

Prerequisite: MUSIC 104. Continuation of work begun in 104. (Formerly 7500:105)

**MUSIC:106 Music Orientation (0 Credits)**

Zero credit class designed to provide information and support for incoming music majors as they transition into the academic environment of the School of Music. (Formerly 7500:106)

**MUSIC:107 Class Voice I (2 Credits)**

Prerequisite: MUSIC 101. Minimum memorization and solo singing requirement: seven songs. Voice literature emphasis; folk songs, ballads, spirituals, sacred songs and easy art songs in English. (Formerly 7500:107)

**MUSIC:108 Class Voice II (2 Credits)**

Prerequisite: MUSIC 107. Minimum memorization and solo singing requirement: eight songs. Vocal literature emphasis: old Italian and English songs, art songs in English or foreign language if student is conversant with the language. (Formerly 7500:108)

**MUSIC:110 Class Guitar (1 Credit)**

Introduction to the guitar, its repertoire and techniques. Basic classical techniques and music reading, strums, finger-picking, accompaniment patterns, blues styles will be covered. (Formerly 7500:110)

**MUSIC:121 Theory and Musicianship I (4 Credits)**

Sequential, Prerequisite: Grade of C- or higher in MUSIC 101 or placement. Analysis, aural/oral skills; Diatonic pitch materials, three clefs; simple-compound meters, rhythmic divisions and subdivisions. (Formerly 7500:121)

**MUSIC:122 Theory and Musicianship II (4 Credits)**

Sequential, Prerequisite: Grade of C- or higher in MUSIC 121. Theory, analysis, aural/oral skills: Seventh chords, secondary function, four-part dictation; asymmetric meters, borrowed subdivision. (Formerly 7500:122)

**MUSIC:141 Ear Training/Sight Reading I (1 Credit)**

Prerequisite: Placement in Theory I. Corequisite: MUSIC 151. Major and minor keys; intervals, triads and inversions; diatonic progressions; three clefs; simple and compound meters; subdivision through sixteenth notes. (Formerly 7500:141)

**MUSIC:142 Ear Training/Sight Reading II (1 Credit)**

Prerequisites: MUSIC 141 and MUSIC 151. Corequisite: MUSIC 152. Seventh chords; melodic chromaticism; secondary function; four-part dictation; asymmetric meters; borrowed subdivision. (Formerly 7500:142)

**MUSIC:151 Theory I (3 Credits)**

Sequential, Prerequisite: Theory Placement Examination (with a score of 65% or higher) or the grade of C- or higher in MUSIC 101. Study/creative use of elements of music; investigation of music of major composers of classic/romantic eras; introduction to earlier musical practices and contemporary music. (Formerly 7500:151)

**MUSIC:152 Theory II (3 Credits)**

Sequential, Prerequisite: grade of C- or higher in MUSIC 151. Study/creative use of elements of music; investigation of music of major composers of classic/romantic eras; introduction to earlier musical practices and contemporary music. (Formerly 7500:152)

**MUSIC:154 Music Literature I (2 Credits)**

Sequential. Familiarization with large body of musical material from all branches of music writing; vocal, instrumental, symphonic and choral music literature. Special attention given to style, form and structural procedures of principal composers. (Formerly 7500:154)

**Gen Ed:** - Arts

**MUSIC:155 Music Literature II (2 Credits)**

Sequential. Familiarization with large body of musical material from all branches of music writing; vocal, instrumental, symphonic and choral music literature. Special attention given to style, form and structural procedures of principal composers. (Formerly 7500:155)

**Gen Ed:** - Domestic Diversity

**MUSIC:157 School of Music Performance Seminar (0 Credits)**

Required of all undergraduate music majors until minimum requirement (8 semesters) is met. Each performance area provides a forum for student and faculty members to provide lectures, recitals and opportunity for practice of various skills necessary for successful music performance. (Formerly 7500:157)

**MUSIC:200 Seminar in Music (1-3 Credits)**

Exploration of special topics in music for the non-music major (may be repeated for a total of 9 credits) (Formerly 7500:200)

**MUSIC:201 Exploring Music: Bach to Rock (3 Credits)**

This course provides non-music majors with the skills to evaluate a wide range of music. (Formerly 7500:201)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Arts

**MUSIC:210 Jazz Improvisation I (2 Credits)**

Prerequisites: MUSIC 262 and permission of instructor. Study and application of principles of jazz improvisation as they relate the chord-scale structures, motif development and style. (Formerly 7500:210)

**MUSIC:211 Jazz Improvisation II (2 Credits)**

Prerequisite: MUSIC 210. Advanced study in principles of jazz composition. (Formerly 7500:211)

**MUSIC:212 Music Industry: A Survey of Practices & Opportunities (2 Credits)**

A study of current practices affecting the professional musician and a survey of career opportunities relating to the music industry. (Formerly 7500:212)

**MUSIC:221 Theory and Musicianship III (4 Credits)**

Sequential, Prerequisite: MUSIC 122. Theory, analysis, and aural/oral skills: Chromatic harmony, dictation of mixed and irregular meters, syncopation, dotted rhythms, and ties. (Formerly 7500:221)

**MUSIC:222 Theory and Musicianship IV (4 Credits)**

Sequential, Prerequisite: MUSIC 221. Theory, analysis, and aural/oral skills: Advanced chromaticism and rhythm, extended tonality, form, serial and non-serial atonality. (Formerly 7500:222)

**MUSIC:241 Ear Training/Sight Reading III (1 Credit)**

Prerequisites: MUSIC 142 and MUSIC 152. Corequisite: MUSIC 251. Modulation; chromatic harmony; mixed meters. (Formerly 7500:241)

**MUSIC:242 Ear Training/Sight Reading IV (1 Credit)**

Prerequisites: MUSIC 241 and MUSIC 251. Corequisite: MUSIC 252. Twentieth-century materials: modes; whole-tone and octatonic scales; secundal and quartal/quintal harmony; classical, jazz, and non-western examples; polyrhythm; total and atonal contexts. (Formerly 7500:242)

**MUSIC:251 Theory III (3 Credits)**

Sequential, Prerequisite: The grade of C- or higher in MUSIC 152. Renaissance vocal counterpoint; Baroque instrumental counterpoint; form and analysis of music of all eras. (Formerly 7500:251)

**MUSIC:252 Theory IV (3 Credits)**

Sequential, Prerequisite: The grade of C- (70%) or higher in MUSIC 251. Renaissance vocal counterpoint; Baroque instrumental counterpoint; form and analysis of music of all eras. (Formerly 7500:252)

**MUSIC:259 Fretboard Harmony (2 Credits)**

Prerequisite: MUSIC 261 or permission of instructor. Essentials of basic theory and harmony as applied to the guitar fretboard: accompaniment, improvisation, transposition, modulation, figures bass, sight reading. (Formerly 7500:259)

**MUSIC:261 Keyboard Harmony I (2 Credits)**

Sequential. Prerequisites: MUSIC 105 or equivalency and MUSIC 122. Essentials of basic theory and harmony practically applied at keyboard; accompaniment, improvisation, transposition, modulation and sight-reading. (Formerly 7500:261)

**MUSIC:262 Keyboard Harmony II (2 Credits)**

Sequential. Prerequisites: MUSIC 105 or equivalency and MUSIC 122. Essentials of basic theory and harmony practically applied at keyboard; accompaniment, improvisation, transposition, modulation and sight-reading. (Formerly 7500:262)

**MUSIC:265 Diction for Singers I (2 Credits)**

Sequential. Prerequisite: Permission. Study of diction of the four most used languages (Italian, German, French and English) in vocal performance and international phonetic alphabet. Designed for student who expects to function as vocal performers and/or choral and studio voice teachers. (Formerly 7500:265)

**MUSIC:266 Diction for Singers II (2 Credits)**

Sequential. Prerequisite: MUSIC 265. Study of diction of the four most used languages (Italian, German, French and English) in vocal performance and international phonetic alphabet. Designed for student who expects to function as vocal performers and/or choral and studio voice teachers. (Formerly 7500:266)

**MUSIC:271 Piano Pedagogy & Literature I (2 Credits)**

Prerequisite: Permission of instructor. Examination of musical content and pedagogical orientation of beginning piano material to include appropriate teaching works, methods and ensemble pieces from a variety of historical periods. (Formerly 7500:271)

**MUSIC:272 Piano Pedagogy & Literature II (2 Credits)**

Prerequisite: MUSAP 125 or permission of the instructor. A survey of piano literature at all levels of difficulty, with practical emphasis on its use for teaching. (Formerly 7500:272)

**MUSIC:276 Trumpet & French Horn Methods (1 Credit)**

Prerequisite: MUSIC 102. A comprehensive approach to the performance and pedagogy of the trumpet and French horn for the instrumental music education major in preparation for teaching music. (Formerly 7500:276)

**MUSIC:277 Clarinet & Saxophone Methods (1 Credit)**

Prerequisite: MUSIC 276. A comprehensive approach to the performance and pedagogy of the clarinet and saxophone for the instrumental music education major in preparation for teaching music. (Formerly 7500:277)

**MUSIC:278 String Methods I (1 Credit)**

Prerequisites: MUSIC 222, MUSIC 262, and MUSIC 277. Fundamentals of technique, tone production, methods, and materials pertaining to teaching violin and viola in the public schools. (Formerly 7500:254)

**MUSIC:279 String Methods II (1 Credit)**

Prerequisite: MUSIC 278. Continuation of the fundamentals of technique, tone production, methods, and materials pertaining to teaching violin, viola, cello and string bass in the public schools. (Formerly 7500:255)

**MUSIC:289 Music Education Department Jury (0 Credits)**

Prerequisites: Minimum cumulative GPA of 2.5, C or higher in all School of Music courses, and minimum 200 level in primary applied study area (MUSAP 2xx). Pre/Corequisite: MUSIC 222 and MUSIC 262. Sophomore exam for music education majors. (Formerly 7500:289)

**MUSIC:298 Technologies of Music Education (2 Credits)**

Prerequisite: MUSIC 102. Introductory hands-on experiences with a wide range of technology applications and strategies to integrate technology into the music curriculum. (Formerly 7500:298)

**MUSIC:307 Techniques of Jazz Ensemble Performance & Direction (2 Credits)**

Prerequisites: MUSIC 289 and MUSIC 345 or permission of instructor. Basic experiences relating to conducting, rehearsal techniques, improvisation, performance, repertoire and other matters related to organization and direction of stage bands. Required for instrumental majors. (Formerly 7500:307)

**MUSIC:308 History & Literature of Jazz (3 Credits)**

Prerequisite: Permission of instructor. Study of origins of jazz music, its development and influence on today's culture. Investigates evolution of musical instruments as they pertain to jazz music, the artists who perform on them, and their music through live and recorded listening experiences. (Formerly 7500:308)

**MUSIC:309 Jazz Keyboard Techniques (2 Credits)**

Prerequisite: MUSIC 262. Study of and familiarization with basic jazz keyboard techniques as they relate to contemporary jazz harmony and theory. (Formerly 7500:309)

**MUSIC:310 Jazz Improvisation III (2 Credits)**

Prerequisite: MUSIC 211. Advanced study in the principles of jazz improvisation. (Formerly 7500:310)

**MUSIC:311 Jazz Improvisation IV (2 Credits)**

Prerequisite: MUSIC 310. Advanced study in the principles of jazz improvisation. (Formerly 7500:311)

**MUSIC:325 Research in Music (2 Credits)**

Prerequisites: MUSIC 155, MUSIC 222, and MUSIC 262. Techniques of basic research methods; examination of selected music materials; field trips to specialized collections. (Formerly 7500:325)

**MUSIC:339 Teaching General Music I (2 Credits)**

Prerequisites: MUSIC 222, MUSIC 262, and MUSIC 289. Methods and materials for teaching general music in pre-K to 12th grade classrooms. (Formerly 7500:339)

**MUSIC:340 Teaching General Music II (2 Credits)**

Prerequisites: MUSIC 289, and MUSIC 339. Advanced methods and materials for teaching general music with emphasis on Orff, Kodaly and Dalcroze methodologies. (Formerly 7500:340)

**MUSIC:342 Group Vocal Techniques for Choral Music Education (2 Credits)**

Prerequisites: [MUSEN 120 or MUSEN 121], MUSAP 124, MUSIC 265, and MUSIC 298. Foundational concepts of group vocal techniques. Designed for choral educators to learn physiology of the voice, basics of vocal production, and applications for the Pre-K-12 choral classroom. (Formerly 7500:268)

**MUSIC:345 Low Brass Methods (1 Credit)**

Prerequisites: MUSIC 222, MUSIC 262, MUSIC 277, and MUSIC 289. A comprehensive approach to the pedagogy and performance of the low brass for the instrumental music education major in preparation for teaching music. (Formerly 7500:345)

**MUSIC:346 Flute & Double Reed Methods (1 Credit)**

Prerequisites: MUSIC 289, MUSIC 339, and MUSIC 345. A comprehensive approach to the pedagogy and performance of the flute and double reeds for the instrumental music education major in preparation for teaching music. (Formerly 7500:346)

**MUSIC:348 Marching Band Organization & Techniques (1-2 Credits)**

Prerequisite: MUSIC 289, two semesters MUSEN 126. A discussion of the marching band. Students learn to write complete half-time show, administer marching band program. Required for instrumental music education majors. (Formerly 7500:305)

**MUSIC:351 Music History I (3 Credits)**

Sequential. Prerequisites: MUSIC 122 and MUSIC 155. Development of music from ancient to modern times; scores, recordings and live performances as illustrative material. (Formerly 7500:351)

**MUSIC:352 Music History II (3 Credits)**

Sequential. Prerequisites: MUSIC 351. Development of music from ancient to modern times; scores, recordings and live performances as illustrative material. (Formerly 7500:352)

**MUSIC:353 Electronic Music (3 Credits)**

Theory of electronically generated sound and practice of electronic music composition. Emphasis is on understanding digital and analog synthesizers in a MIDI recording studio. (Formerly 7500:353)

**MUSIC:361 Conducting (2 Credits)**

Prerequisites: All Majors MUSIC 155, MUSIC 222, and MUSIC 262; Vocal MUSIC 289, MUSIC 351, or permission; Instrumental MUSIC 278, MUSIC 346, MUSIC 352, MUSIC 454 or permission. Study and practice of conducting techniques; patterns, fermatas, tempo and dynamic change, attacks and releases, score reading, aural skills. One hour lab required. (Formerly 7500:361)

**MUSIC:363 Intermediate Conducting: Choral (2 Credits)**

Prerequisite: MUSIC 361 or instructor permission. Introduction to choral conducting with emphasis on manual techniques, vocal skills, aural skills, and gaining conducting experience. (Formerly 7500:363)

**MUSIC:366 Song Literature I (2 Credits)**

Prerequisite: MUSIC 222 or permission. Systematic study of French and German song literature presented chronologically. Includes study of stylistic compositional characteristics and repertoire of major composers of song literature. (Formerly 7500:366)

**MUSIC:367 Song Literature II (2 Credits)**

Prerequisite: MUSIC 222 or permission. Systematic study of American, British and Italian song literature presented chronologically. Includes study of stylistic compositional characteristics and repertoire of major composers of song literature. (Formerly 7500:367)

**MUSIC:368 Guitar Styles (2 Credits)**

Prerequisite: 200 performance level or permission of instructor. Techniques involved in performing musical styles other than those in classical guitar. Included are plectrum styles such as bluegrass, country and rock, as well as flamenco, folk, popular and jazz. (Formerly 7500:368)

**MUSIC:371 Analytical Techniques (2 Credits)**

Prerequisite: MUSIC 222. Techniques for analysis of musical score from all eras of Western music history, with major emphasis on works of Baroque, Classical and Romantic periods. (Formerly 7500:371)

**MUSIC:372 Post-Tonal Analytic Techniques (2 Credits)**

Prerequisite: MUSIC 222. Techniques for the analysis of musical scores from the 20th and 21st Centuries. Required of a composition major. (Formerly 7500:372)

**MUSIC:407 Jazz Arranging & Scoring (2 Credits)**

Prerequisites: MUSIC 309 and MUSIC 454. Study of jazz instrumentation from small groups to large ensembles. (Formerly 7500:407)

**MUSIC:430 Teaching and Literature: Brass Instruments (2 Credits)**

Prerequisite: Permission of instructor. Research in current trends and issues in brass teaching techniques and appropriate literature. (Formerly 7500:415)

**MUSIC:431 Teaching and Literature: Woodwind Instruments (2 Credits)**

Prerequisite: Permission of instructor. Research in current trends and issues in woodwind teaching techniques and appropriate literature. (Formerly 7500:416)

**MUSIC:432 Teaching & Literature: Percussion Instruments (2 Credits)**

To train undergraduate and graduate percussion students in techniques of percussion education. Emphasis on research, literature, performance, and techniques from elementary through secondary levels. (Formerly 7500:432)

**MUSIC:434 Teaching & Literature: String Instruments (2 Credits)**

Prerequisite: Permission of instructor. In depth study of the four bowed string instruments, their teaching and close relationship. Despite obvious difference in physical application of cello and bass from violin and viola, methods of bowing, sound production and coloring are closely related. Application of the instruments to solo, chamber and orchestral playing. (Formerly 7500:434)

**MUSIC:440 Percussion Methods (1 Credit)**

Prerequisite: MUSIC 289. Pre/Corequisite: MUSIC 442. A comprehensive approach to the pedagogy and performance of the percussion instruments for the instrumental education major in preparation for teaching music. (Formerly 7500:458)

**MUSIC:441 Junior High/Middle School Choral Methods (2 Credits)**

Prerequisites: MUSIC 289 and MUSIC 339. Pre/Corequisite: MUSIC 361. Methods and materials for teaching choral music at the JH/MS level. Develops competencies in literature selection, rehearsal techniques and assessment of the adolescent voice. (Formerly 7500:341)

**MUSIC:442 Instrumental Methods (2 Credits)**

Prerequisite: MUSIC 289. Pre/Corequisite: MUSIC 361. Procedures for teaching instrumental music at all levels. Special emphasis will be placed on classroom management, recruitment, assessment, literature selection, scheduling, and rehearsal organization. Clinical and field experience. (Formerly 7500:442)

**MUSIC:443 Instrumental Practicum (2 Credits)**

Prerequisite: MUSIC 442. Procedures for teaching instrumental music at all levels. Special emphasis will be placed on classroom management, recruitment, assessment, literature selection, scheduling, and rehearsal organization. Clinical and field experience. (Formerly 7500:443)

**MUSIC:444 Secondary Choral Music Methods/Materials (2 Credits)**

Prerequisites: MUSIC 289, MUSIC 339, and MUSIC 361. Methods, techniques, and materials for teaching secondary choral music. Develops competencies in literature, selection, rehearsal techniques, and programming methodology. (Formerly 7500:344)

**MUSIC:445 Equity and Excellence in Music Education (3 Credits)**

Prerequisites: MUSIC 289 and MUSIC 442. Inquiry-based seminars and service learning field experiences for the music education major to develop competence implementing equity and excellence in a culturally pluralistic society. (Formerly 7500:315)

**MUSIC:451 Introduction to Musicology (2 Credits)**

Prerequisite: MUSIC 352. Comparative musicology; acoustics; psychology and physiology of music; aesthetics; theory of music theory; historical musicology. (Formerly 7500:451)

**MUSIC:453 Music Software Survey and Use (2 Credits)**

Prerequisite: MUSIC 122 or permission of instructor. A survey and evaluation of available software in the various forms of musical instruction. Students will design a course suitable for submission to a programmer. (Formerly 7500:453)

**MUSIC:454 Orchestration (2 Credits)**

Prerequisite: MUSIC 222. Theory of instrumentation ranging from small ensembles to full band and orchestras. (Formerly 7500:454)

**MUSIC:455 Advanced Conducting: Instrumental (2 Credits)**

Prerequisite: MUSIC 361 and MUSIC 442 or permission. Baton techniques and problems relating to practice, reading and preparation of scores; organization of ensembles; programming; conducting large instrumental ensembles. One hour lab required. (Formerly 7500:455)

**MUSIC:456 Advanced Conducting: Choral (2 Credits)**

Prerequisite: MUSIC 363. Conducting techniques to the choral ensemble, including leadership, error detection, tonal development, stylistic accuracy and analysis. One hour lab required. (Formerly 7500:456)

**MUSIC:457 Senior Recital (0 Credits)**

Permission of applied instructor is required for this course, which is taken only during the semester of the Senior Recital. (Formerly 7500:457)

**MUSIC:465 Vocal Pedagogy (2 Credits)**

Prerequisite: Junior or greater standing. In depth study of subjects dealing with teaching voice: physiology of the vocal instrument, principles governing vocal production and application of vocal pedagogy. (Formerly 7500:465)

**MUSIC:467 Guitar Pedagogy (2 Credits)**

Prerequisite: Permission of instructor. A systematic analysis of prevailing schools of guitar pedagogy. Sound production physiology, method books and special problems in teaching addressed. (Formerly 7500:467)

**MUSIC:468 Guitar Arranging (2 Credits)**

Prerequisite: Permission of instructor. After comparative analysis of selected examples, students make original solo guitar arrangements of works written for other solo instruments and ensembles. (Formerly 7500:468)

**MUSIC:469 History & Literature: Guitar & Lute (2 Credits)**

Prerequisite: Permission of instructor. Study of plucked, fretted, string instruments from the 14th Century to the present: construction, notation, literature and performance practices. Modern editions and recordings evaluated. (Formerly 7500:469)

**MUSIC:471 Counterpoint (2 Credits)**

Prerequisite: Permission of instructor. Designed to give student of theory-composition necessary knowledge and skills for understanding contrapuntal practices and procedures; emphasis on 20th-Century techniques. (Formerly 7500:471)

**MUSIC:472 Advanced Orchestration (2 Credits)**

Prerequisite: MUSIC 454. Study of techniques of orchestral style as found in major works from classical orchestra of Haydn and Mozart through modern orchestra of Stravinsky, Bartok, Berg and Schoenberg. (Formerly 7500:472)

**MUSIC:490 Workshop in Music (1-3 Credits)**

Prerequisite: Permission of instructor. Investigation of topics not offered in regular curriculum. Graduate student must fulfill additional requirements. (Formerly 7500:490)

**MUSIC:492 Student Teaching Colloquium (3 Credits)**

Prerequisite: Restricted to students enrolled in Student Teaching in Music. For music education majors; certification, contracts, benefits, job market prospects and student teaching experience sharing. (Formerly 7500:492)

Gen Ed: - Capstone

**MUSIC:497 Independent Study in Music (1-2 Credits)**

(May be repeated for a total of four credits) Prerequisites: A minimum academic standing of Senior, a Music major and permission of department head. Independent study under supervision of specially selected faculty members in subject area bearing on student's own goals. (Formerly 7500:497)

**MUSIC:498 Senior Honors Project: Music (1-3 Credits)**

(May be repeated for a total of six credits) Individually designed project demonstrating scholarship, analysis, advanced musicianship, research and/or creativity according to student interest. Restricted to University honors music student. (Formerly 7500:498)

## Music Organizations (MUSEN)

**MUSEN:101 University Symphony Youth Orchestra (1 Credit)**

This ensemble is designed for the post-secondary student who wishes to participate in a select group performing orchestral literature. By audition only. (Formerly 7510:101)

**MUSEN:102 Akron Symphony Chorus (1 Credit)**

Open to University and community members by audition. Prospective members should contact School of Music two weeks before semester begins. Performs with Akron Symphony Orchestra. (Formerly 7510:102)

**MUSEN:103 University Symphony: Orchestra (1 Credit)**

Membership by audition. Organization devoted to study of orchestral literature. Full-length concerts as well as special University appearances. Major conducted ensemble. (Formerly 7510:103)

**MUSEN:104 Wind Symphony (1 Credit)**

Membership by audition. The Wind Symphony is the most select band at the University and performs the most demanding and challenging music available. Major conducted ensemble. (Formerly 7510:104)

**MUSEN:105 Vocal Choral Ensemble (1 Credit)**

Membership open to those enrolled in applied voice study. Coaching and rehearsal of solo and ensemble literature for voices from operatic, oratorio and lieder repertoires. (Formerly 7510:105)

**MUSEN:106 Brass Ensemble (1 Credit)**

Membership by audition. Study and performance of literature for brass ensemble from all periods of music history. Frequent public concerts. For advanced brass players. (Formerly 7510:106)

**MUSEN:107 String Ensemble (1 Credit)**

Membership by audition. In-depth study of performance of chamber music literature with special emphasis on string quartet and piano trio. (Formerly 7510:107)

**MUSEN:108 Opera/Lyric Theater Workshop (1 Credit)**

Membership by audition. Musical and dramatic group study of excerpts from operatic repertoire. Includes annual production of standard opera and/or contemporary chamber work with staging, costumes and scenery. (Formerly 7510:108)

**MUSEN:109 Percussion Ensemble (1 Credit)**

Membership by audition. Study and performance of literature for various percussion groups; develops skill in ensemble performance. (Formerly 7510:109)

**MUSEN:110 Woodwind Ensemble (1 Credit)**

Membership by audition. Study, reading, and performance of major orchestral and serenade repertoire for wind instruments. (Formerly 7510:110)

**MUSEN:114 Keyboard Ensemble (1 Credit)**

In-depth study of ensemble playing. Eight semesters required for Keyboard majors, six semesters for Keyboard Mus. Ed. majors, and each semester for keyboard scholarship recipients. (Formerly 7510:114)

**MUSEN:115 Jazz Ensemble (1 Credit)**

Membership by audition. Provides experience in jazz ensemble performance. Student is assumed to have knowledge of rudiments of music and some experience in jazz performance. (Formerly 7510:115)

**MUSEN:116 Guitar Ensemble (1 Credit)**

Membership by audition. Provides experience in conducted ensemble performance for guitarists. Major conducted ensemble. (Formerly 7510:116)

**MUSEN:118 Small Ensemble-Mixed (1 Credit)**

Chamber Ensemble, Baroque Ensemble and Contemporary Music Ensemble. Each is a group of diverse instruments which rehearses and performs a selected body of music. (Formerly 7510:118)

**MUSEN:120 Concert Choir (1 Credit)**

Membership by audition. Highly select mixed choir. Performs classical literature from all periods. Campus, regional, and tour performances. "Major conducted ensemble" for vocal majors. (Formerly 7510:120)

**MUSEN:121 University Singers (1 Credit)**

Membership by audition. Mixed ensemble devoted to performance of a wide variety of choral literature from classical to popular. "Major conducted ensemble" for vocal majors. (Formerly 7510:121)

**MUSEN:125 Symphony Band (1 Credit)**

Membership by audition. The Symphony Band is a select ensemble at the University and performs standard and contemporary repertoire for wind bands. Major conducted ensemble. (Formerly 7510:125)

**MUSEN:126 Marching Band (1 Credit)**

Enrollment is open to all members of the University student body. This organization is noted for its high energy performances at University football games. (Formerly 7510:126)

**MUSEN:127 Blue & Gold Brass (1 Credit)**

Membership by audition. The official band for Akron home men's basketball games. (Formerly 7510:127)

**MUSEN:128 Concert Band (1 Credit)**

Membership by audition. Open to all students regardless of academic major. The Concert Band performs standard and contemporary repertoire for wind bands. Major conducted ensemble. (Formerly 7510:128)

**MUSEN:129 Blue & Gold Brass II (1 Credit)**

Membership by audition. The official band for Akron home ladies basketball games. (Formerly 7510:129)

**MUSEN:130 Summer Symphonic Band (1 Credit)**

Membership open to UA students and community musicians. Enrollment in course required. Summer Symphonic Band performs standard repertoire for wind band. (Formerly 7510:130)

**MUSEN:150 Chamber Choir (1 Credit)**

Membership by audition. Premiere and flagship choral ensemble. Highest level of musicianship, vocal technique, and professionalism required. Performs classical literature of all periods and genres. (Formerly 7510:150)

**MUSEN:421 Guitar Chamber Music (1 Credit)**

Prerequisite: Open to all upper class instrumentalists and vocalists. Guitarists must have taken Guitar Ensemble, MUSEN 116. Study, coaching, and performance of major works for guitar with other instruments or voice. Major conducted ensemble for guitar majors. (Formerly 7510:421)

**MUSEN:431 Summer Drum Corps Experience (1 Credit)**

Prerequisite: Permission of instructor. Summer Drum Corps Experience provides one credit for participation in a Junior Level - Division I, II, or III Drum and Bugle Corps as part of the Drum Corps International Summer Music Games. (Formerly 7510:431)

## New Media (NMED)

**NMED:100 Introduction to New Media: Creative Mind (3 Credits)**

In addition to an introduction to the history and theory of New Media, students will enhance their creative mind through seminar and simple practices. No prior art or digital media experience is required. (Formerly 7000:100)

**NMED:300 New Media II: Creative Practice (3 Credits)**

Prerequisite or Corequisite: NMED 100. Students practice various New Media technologies. No prior art or digital media experience is required. (Formerly 7000:300)

**NMED:400 New Media III: Creative Projects (3 Credits)**

Prerequisite: NMED 300. Students create their original New Media Art projects through research, proposals, productions and a show. (Formerly 7000:400)

**NMED:401 History of Performance and New Media (3 Credits)**

Prerequisite: ART 102 or permission. A survey of performance art and "new media," including video art and sound art, this course takes an historical overview of its subjects from the emergence of performance art in the late 19th century (including dance, theater, and music) and video and sound art in the 1960s, through the present moment. (Formerly 7000:401)

## Nursing (NURS)

**NURS:100 Introduction to Nursing (1 Credit)**

Introduces students to influences of past, present, and future political, legal, social, and cultural processes on the nursing profession and the roles of nurses. (Formerly 8200:100)

**NURS:211 Foundations of Nursing Practice I (5 Credits)**

Prerequisite: Admission to the School of Nursing. This course focuses on basic concepts and skills needed by novice nursing students in order to care for clients. This course will focus on nurse-client relationships, communication, nursing process, psychomotor skills, and beginning pharmacology. Clinical experiences will reflect these concepts and skills. (Formerly 8200:211)

**NURS:212 Foundations of Nursing Practice II (5 Credits)**

Prerequisite: NURS 211. Builds on Foundations of Nursing Practice I focusing on promoting holistic well being across the lifespan. Clinicals are with children and adults, acute and non-acute settings. (Formerly 8200:212)

**NURS:216 Transition to Baccalaureate Nursing (3 Credits)**

Prerequisite: Admission to School of Nursing. This course emphasizes the transition from Licensed Practical Nurse to professional nurse. The LPN is introduced to the discipline of nursing from the baccalaureate perspective. (Formerly 8200:216)

**NURS:217 Pathophysiology for Nurses (3 Credits)**

Prerequisite: Admission to the School of Nursing. Develop understanding of basic concepts related to pathophysiologic mechanisms of health, illness as applied to nursing. Emphasis on application to nursing using the nursing process. (Formerly 8200:217)

**NURS:225 Health Assessment (3 Credits)**

Prerequisite: Admission to the School of Nursing. The skills of taking health histories and performance of basic physical assessment. Supervised practice in the Learning Resource Center. (Formerly 8200:225)



**NURS:230 Nursing Pharmacology (3 Credits)**

Prerequisite: Admission to the School of Nursing. Emphasis on fundamental concepts of pharmacology as applied to major drug classes, actions and effects. Application of nursing process to drug therapy across the lifespan. (Formerly 8200:230)

**NURS:301 Cooperative Education (0 Credits)**

(May be repeated). For cooperative education students only. Work experience in business, industry, or governmental agency. Comprehensive performance evaluation and written report required. (Formerly 8000:301)

**NURS:336 Concepts of Professional Nursing - RN Only (3 Credits)**

Prerequisite: Admission to the RN/BSN sequence. Introduces the RN to baccalaureate nursing. Focuses on the relationship of concepts and theories to the role of the professional nurse. (Formerly 8200:336)

**NURS:337 Health Assessment/RN - RN Only (3 Credits)**

Prerequisite or corequisite: NURS 336. This three hour health assessment course is designed for the registered nurse. The course consists of both theory and independent laboratory practice. (Formerly 8200:337)

**NURS:341 Professional Role Development (3 Credits)**

Prerequisites: Admission to the School of Nursing and all sophomore level courses in the program of study. A professional engagement course designed to expose students to the essentials of the professional role of the baccalaureate generalist nurse. (Formerly 8200:341)

**NURS:350 Nursing of the Childbearing Family (5 Credits)**

Prerequisite: Satisfactory completion of Sophomore level nursing courses. A theoretical and clinical basis for care of the childbearing family in varying degrees of health and in a variety of settings. (Formerly 8200:350)

**NURS:360 Nursing Care of Adults (5 Credits)**

Prerequisite: Satisfactory completion of Sophomore level nursing courses. Acute nursing care of adults with nutrition, elimination, metabolic, sexual, reproductive, and immunological concerns. Includes theory and practice at the advanced beginner level. (Formerly 8200:360)

**NURS:370 Nursing Care of Older Adults (5 Credits)**

Prerequisite: Satisfactory completion of Sophomore level nursing courses. Acute nursing care of older adults with mobility, perception, circulation, and oxygenation concerns. Includes theory and practice at the advanced beginner level. (Formerly 8200:370)

**NURS:380 Mental Health Nursing (5 Credits)**

Prerequisite: Satisfactory completion of Sophomore level nursing courses. Assists students in developing knowledge and skills for providing care to individuals with mental health needs in a variety of settings. (Formerly 8200:380)

**NURS:401 RN Transition (1 Credit)**

Prerequisites: NURS 350, NURS 360, NURS 370, NURS 380 and NURS 341. Corequisites: any two, including NURS 410, NURS 430, NURS 435, NURS 440 and NURS 450. Prepares the Senior nursing student of the professional role by developing a resume, test taking strategies for the NCLEX RN exam and a resume. (Formerly 8200:401)

**NURS:405 Nursing Care of Healthy Individuals/Families - RN Only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Health care concepts across the lifespan with emphasis on health promotion and illness prevention for individuals, families, and groups are discussed. (Formerly 8200:405)

**NURS:406 Palliative Nursing Care - RN Only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Dimensions of end of life nursing care, including family dynamics, grief and loss, ethical considerations, physiologic changes and community resources are examined. (Formerly 8200:406)

**NURS:409 International Health (2-3 Credits)**

Prerequisite: Junior or greater standing. Study in an international location. Focuses on comparisons of education, ethics, government, demography and geography on health care and nursing roles and responsibilities. (Formerly 8200:409)

**NURS:410 Nursing of Families with Children (5 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, and NURS 380 with grades of C+ or better. Theoretical and clinical nursing course focused on the child within a family context. Health problems of both acute and chronic nature are explored. (Formerly 8200:410)

**NURS:412 Global Perspectives of Health and Health Care (2-3 Credits)**

Prerequisite: senior status. Cultural, political, educational, and economical perspectives of different regions of the world and the impact of these factors on health will be compared and examined. (Formerly 8200:412)

**NURS:415 Complex Care of Aging Families/RN only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Complex nursing issues related to care of aging individuals and families are explored. The nurse's role in physiological, emotional and psychosocial care is discussed. (Formerly 8200:415)

**NURS:430 Nursing in Complex & Critical Situations (5 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, NURS 380. Introduces advanced beginners to the complexity of nursing care in acute complex and critical situations of patients with multi-system failures. (Formerly 8200:430)

**NURS:435 Evidence Based Practice in Nursing (2 Credits)**

Prerequisite: Completion of NURS 341, NURS 350, NURS 360, NURS 370, NURS 380. Exploration of the effects of nursing research on the profession, become a knowledgeable consumer of research. (Formerly 8200:435)

**NURS:436 Nursing Research/RN Only (3 Credits)**

Prerequisite or Corequisite: NURS 336. Exploration of the effects of nursing research on the profession and becoming a knowledgeable consumer of research. (Formerly 8200:436)

**NURS:440 Nursing of Communities (4 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, and NURS 380. A synthesis of nursing skills applied among various community populations. Health and illness care strategies within diverse population groups. (Formerly 8200:440)

**Gen Ed:** - Complex Issues Facing Society

**NURS:444 Community Engagement/RN (2 Credits)**

Corequisite: NURS 445. Prerequisite or Corequisite: NURS 336. This community engagement course provides experiences related to community health nursing in a variety of traditional and nontraditional community environments. (Formerly 8200:444)

**NURS:445 Nursing of Communities - RN Only (3 Credits)**

Corequisite: NURS 444. Prerequisite or Corequisite: NURS 336. This course provides a theoretical foundation for community, including public health nursing, to individuals and families in a variety of settings to diverse populations. (Formerly 8200:445)

**Gen Ed:** - Complex Issues Facing Society

**NURS:446 Professional Nursing Leadership - RN Only (3 Credits)**

Corequisite: NURS 447. Prerequisite or Corequisite: NURS 336. Issues related to nursing leadership, management, policy, and economic issues within the healthcare system that influence nursing practice are discussed. (Formerly 8200:446)

**NURS:447 Leadership Engagement/RN (2 Credits)**

Corequisite: NURS 446. Prerequisite or Corequisite: NURS 336. This leadership experience course offers the opportunity to implement leadership and management skills in a health care setting. (Formerly 8200:447)

**NURS:448 Professional Nursing Capstone - RN Only (3 Credits)**

Prerequisite: NURS 336. Prerequisites or Corequisites: NURS 337, NURS 405, NURS 406, NURS 415, NURS 436, NURS 444, NURS 445, NURS 446, and NURS 447. Opportunities to synthesize information and reflect on ethical, legal, cultural, and political dimensions of employment and patient care within the health care system are provided. (Formerly 8200:448)

**NURS:450 Senior Practicum and Nursing Leadership (5 Credits)**

Prerequisites: NURS 341, NURS 350, NURS 360, NURS 370, and NURS 380. This course focuses on the application of leadership and management principles to the practice of nursing. Political, social, cultural, legal and ethical issues are explored. (Formerly 8200:450)

**NURS:453 School Nurse Practicum I (5 Credits)**

Prerequisites: HEDU 421/521 and HEDU 423/523. Prerequisite or corequisite: NURS 225/650. Emphasis on clinical primary health care nursing to enhance positive health behavior outcomes of well children and adolescents with minor conditions on family, community, school contexts. (Formerly 8200:453)

**NURS:454 School Nurse Practicum II (5 Credits)**

Prerequisite: HEDU 421/521, HEDU 423/523, NURS 225 or 650, NURS 453/553 or waiver. Emphasis on primary health care nursing to enhance positive health behavior outcomes of children/adolescents with minor common health or behavioral problems and chronic illnesses. (Formerly 8200:454)

**NURS:480 Senior Honors Project (1-4 Credits)**

Prerequisites: Honors Program Student, NURS 435 (Honor's Designated Section) Completion and presentation of an original investigation of a significant topic or creative work which must meet high standards of scholarship. (Formerly 8200:480)

**NURS:489 Special Topics: Nursing (1-4 Credits)**

(May be repeated as new topics are presented) Group studies of special topics in nursing. May not be used to meet requirements for the major in nursing. May be used for elective credit. (Formerly 8200:489)

**NURS:493 Workshop (1-4 Credits)**

(May be repeated as new topics are presented) Selected topics in nursing. May be used to meet undergraduate or graduate major requirements at the discretion of the department. (Formerly 8200:493)

**NURS:497 Independent Study: Nursing (1-3 Credits)**

Prerequisite: Permission of Director of Nursing Education, and good academic standing. Provides opportunity to develop greater depth in an area of nursing through methodology specific to discipline of nursing. (Formerly 8200:497)

## Nutrition and Dietetics (NUTR)

**NUTR:120 Career Decisions in Nutrition (1 Credit)**

Exploration of the nutrition/dietetics/food industry profession, including academic/internship routes, career opportunities, professional concepts and attributes. Self-assessment and goal setting with beginning portfolio development. (Formerly 7760:120)

**NUTR:132 Early Childhood Nutrition (3 Credits)**

Emphasis on nutrition as component of Early Childhood programs. Nutrition principles discussed in relation to self and young children. Prenatal and infant nutrition studied. Food as learning experience, menu planning, purchasing, sanitation, food labeling, storage and parent involvement included. For Family and Child Development Option, and an educational technology student. (Formerly 7760:132)

**NUTR:133 Nutrition Fundamentals (3 Credits)**

Study of basic nutrition concepts, contemporary issues, controversies; emphasis on macro/micro nutrient requirements for healthy individuals; analysis of a student's dietary intake. Online section available. (Formerly 7760:133)

**Gen Ed:** - Natural Science

**NUTR:141 Food for the Family (3 Credits)**

Prerequisite: Permission of instructor. Application of nutrition to meal planning; problems in selecting, budgeting and preparing food; meal service. (Formerly 7760:141)

**NUTR:200 Sustainability, Foods and Environments (3 Credits)**

This course provides an introduction to the basic concepts of environmental sustainability and conservation in food production. A brief history of this issue is followed by an examination of population needs and the management of water, agricultural practices, animal husbandry, fertilizer use, and land management. Global warming, genetically modified plant and animal organisms (GMOs), and carbon footprint/fossil fuel use, are also considered. The demographic and geo-political features of North American populations (urban, suburban, rural) contextualize comparisons of conventional food production practices and sustainable practices, around the world. (Formerly 7760:200)

**NUTR:228 Introduction to Medical Nutrition Therapy (3 Credits)**

Prerequisites: NUTR 133, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Introduction to Medical Nutrition Therapy will review basic metabolic and pathological conditions with emphasis on medical nutrition therapy strategies. (Formerly 7760:228)

**NUTR:250 Food Science Lecture (3 Credits)**

Prerequisites: NUTR 133, NUTR 120, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Corequisite: NUTR 251. Study of the chemical and physical structure of food. Scientific and aesthetic principles involved in the selection, storage and preparation of foods. (Formerly 7760:250)

**NUTR:251 Food Science Lab (1 Credit)**

Prerequisites: NUTR 133, NUTR 120, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Corequisite: NUTR 250. Application of the scientific and sensory principles involved in the selection, storage and preparation of foods. (Formerly 7760:251)

**NUTR:310 Food Systems Management I (4 Credits)**

Prerequisites: NUTR 250 and [ACCT 201 or COMM 211]. Corequisite: NUTR 315. Basic theoretical concepts in the management of dietetic food service systems and the practical application of principles and procedures in quantity food production and service. (Formerly 7760:310)

**NUTR:314 Food Systems I Field Experience (2 Credits)**

Prerequisites: ACCT 201 and NUTR 250. Corequisite: NUTR 310. Development of quantity food preparation in community and health care agencies; identification of functions and resources involved in the food service systems. (Formerly 7760:314)

**NUTR:315 Food Systems Management I Supervised Experiential Learning (2 Credits)**

Prerequisite: Admission to the Dietetics program and NUTR 250. Corequisite: NUTR 310. Development of quantity food preparation and supervisory skills in community agencies; identification of functions and resources involved in the management of food service systems. (Formerly 7760:315)

**NUTR:316 Science of Nutrition (4 Credits)**

In-depth characterization of composition, metabolism, physiological functions and interrelationships of nutrients. Analysis and interpretation of current literature; assessment of nutrition counseling techniques. (Formerly 7760:316)

**NUTR:321 Experimental Foods (3 Credits)**

Prerequisites: NUTR 250, CHEM 110, CHEM 111, CHEM 112, and CHEM 113. Theory and methods in the experimental study of foods. Sensory evaluation and instrumental analysis of food quality. Individual research emphasized. Lecture/Laboratory. (Formerly 7760:321)

**NUTR:328 Medical Nutrition Therapy I (3 Credits)**

Prerequisites: [NUTR 133 or NUTR 316], NUTR 426, and NUTR 443. Analysis of health care concepts and the medical nutrition therapy relationship. Consideration of nutritional implications of pathological conditions and alterations to diet for specific health issues or disorders. (Formerly 7760:328)

**NUTR:329 Medical Nutrition Therapy I Supervised Experiential Learning (2 Credits)**

Prerequisites: Admission to the Dietetics program, [NUTR 133 or NUTR 316], NUTR 426, and NUTR 443. Corequisite: NUTR 328. Analysis of therapeutic health-care concepts. Consideration of nutritional implications of pathological conditions; construction of diets for specific disorders. (Formerly 7760:329)

**NUTR:340 Meal Management (3 Credits)**

Prerequisite: NUTR 250 or NUTR 141. Emphasis is on meal design, etiquette, nutritional adequacy, and application of management principles. Resource management is applied to all course activities, including restricted financial and special diet situations. (Formerly 7760:340)

**NUTR:400 Nutrition Education Skills with the General Public (3 Credits)**

Prerequisites: Admission to the Dietetics program and [NUTR 133 or NUTR 316]. Theory and development of communication and education skills with the general public. (Formerly 7760:400)

**NUTR:401 Nutrition Counseling Skills (3 Credits)**

Prerequisites: Admission to a nutrition program and NUTR 400. This course discusses theory and development of counseling skills. Skills essential to dietetics practice and discussed in this course include but are not limited to; interpersonal communication; interviewing; nutrition counseling and coaching. (Formerly 7760:401)

**NUTR:403 Advanced Food Preparation (3 Credits)**

Prerequisite: NUTR 141 or NUTR 250. Study of advanced techniques of food preparation. Introduction to and interpretation of classic and foreign cuisines. Emphasis on individualized experiences, skill development and evaluation of procedures and results. (Formerly 7760:403)

**NUTR:412 Introduction to Regulatory Affairs (3 Credits)**

Organization and management in administration of food service systems; problems in administration of food service systems; problems in control of labor, time and cost. Field experience in food production. Study of regulations affecting the food industry, such as food labeling, nutrition labeling, food safety, and adulteration. Course includes discussion of regulatory agencies and their impact on the food industry. (Formerly 7760:412)

**NUTR:413 Food Systems Management II (3 Credits)**

Prerequisite: NUTR 310. Advanced concepts in management of dietetic service systems relating to achievement of nutritional care goals. (Formerly 7760:413)

**NUTR:421 Special Problems in Nutrition and Dietetics (1-3 Credits)**

Additional study or apprentice experience in specialized field or preparation; group and individual experimentation. (Formerly 7760:421)

**NUTR:424 Nutrition in Life Cycle (3 Credits)**

Prerequisite: NUTR 316 or NUTR 426. Study of the physiological basis for nutritional requirements; interrelating factors which affect growth, development, maturation and nutritional status from conception through the elderly years. (Formerly 7760:424)

**NUTR:426 Human Nutrition (3 Credits)**

Prerequisites: NUTR 133, NUTR 228, BIOL 202, BIOL 203, CHEM 112, and CHEM 113. Application of principles nutrition, metabolism and assessment. Analyses and interpretation of current literature. Open to dietetics majors only. (Formerly 7760:426)

**NUTR:428 Medical Nutrition Therapy II (3 Credits)**

Prerequisite: NUTR 328. Continuation of 328. Medical Nutrition Therapy I with emphasis on more complex metabolic and pathological conditions with nutrition therapy strategies. (Formerly 7760:428)

**NUTR:429 Medical Nutrition Therapy II Supervised Experiential Learning (2 Credits)**

Prerequisites: Admission to a nutrition program and NUTR 329. Corequisite: NUTR 428. Supervised practice experience in health care facilities with application of principles of medical nutrition therapy learned in NUTR 328 and NUTR 428. (Formerly 7760:429)

**NUTR:430 Computer Assisted Food Service Management (3 Credits)**

Use of computer programs in application of management concepts for food service systems. (Formerly 7760:430)

**NUTR:431 Healthcare Business and Research for Dietetics (3 Credits)**

Prerequisite: Admission to the Dietetics program. This course will discuss the procedure for best developing and implementing a new nutrition business. Coding and billing in healthcare will be addressed as well as exhibiting ethical behaviors of practice. Research is conducted in various areas of dietetics. The development and implementation of a research study will be discussed in addition to identifying outcomes and the appropriate statistical methods to use in research. (Formerly 7760:431)

**NUTR:443 Nutrition Assessment (3 Credits)**

Prerequisites: NUTR 133, NUTR 228, BIOL 202, BIOL 203, CHEM 112, and CHEM 113. Application of principles of nutrition and assessment. Analysis and interpretation of current literature. Open to dietetics majors only. (Formerly 7760:443)

**NUTR:444 Long Term Care Supervised Experiential Learning (4 Credits)**

Prerequisites: Admission to the Dietetics program, NUTR 328 and NUTR 329. Supervised Experiential Learning in long term care facilities for application of principles of nutritional care and foodservice operation. (Formerly 7760:444)

**NUTR:447 Senior Seminar (1 Credit)**

Prerequisite: Senior standing. Consideration of the nutrition/dietetic professions and the impact on the health and wellness of individuals, families, and the environment. Analysis of challenges facing the profession. (Formerly 7760:447)

**NUTR:470 Food Industry: Analysis & Field Study (3 Credits)**

Prerequisite: NUTR 250. Role of technology in extending the food supply. Chemical, physical and biological effects of processing and storage, on-site tours of processing plants. (Formerly 7760:470)

**NUTR:474 Cultural Dimensions of Food (3 Credits)**

Prerequisite: NUTR 250. An examination of cultural, geographical and historical influences on development of food habits. Emphasis on evolution of diets; effects of religion, education, gender roles, media. (Formerly 7760:474)

**NUTR:476 Developments in Food Science (3 Credits)**

Prerequisite: NUTR 250. Advanced study of the chemistry and physics of food components affecting characteristics of food. Critical evaluation of current basic and applied research emphasized. (Formerly 7760:476)

**NUTR:480 Community Nutrition I (3 Credits)**

Prerequisites: NUTR 316 or NUTR 426. Corequisite: NUTR 481 for CP students only. Major food and nutrition related problems in the community. Emphasis on community assessment, program implementation and evaluation, and rationales for nutrition services. (Formerly 7760:480)

**NUTR:481 Community Nutrition I-Supervised Experiential Learning (2 Credits)**

Prerequisite: Admission to a nutrition program. Corequisite: NUTR 480. Field placement in area agencies offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care. (Formerly 7760:481)

**NUTR:482 Community Nutrition II (3 Credits)**

Prerequisite: NUTR 480. Corequisite: NUTR 483 for CP students only. Activities engaged in by community nutritionist. Emphasis on controversies, cultural differences, educational approaches, grantsmanship, marketing, and working with the media. (Formerly 7760:482)

**NUTR:483 Community Nutrition II-Supervised Experiential Learning (2 Credits)**

Prerequisites: Admission to a nutrition program and NUTR 481. Corequisite: NUTR 482. A second field placement in an area agency offering nutrition services. Study of the agency's goals, organization, and philosophy of nutritional care. (Formerly 7760:483)

**NUTR:484 Health and Wellness Clinical (4 Credits)**

Prerequisite: CP Students only, NUTR 481. Corequisites: NUTR 413 and NUTR 482. A field placement in agencies or facilities offering health and wellness services as they related to nutrition. Credit/Noncredit. (Formerly 7760:484)

**NUTR:485 Seminar in Health Professions (1-3 Credits)**

Prerequisite: Permission of instructor. Exploration and evaluation of current developments in selected areas. (Formerly 7760:485)

**NUTR:486 Staff Relief: Dietetics (2 Credits)**

Prerequisites: 7760:414, CP senior only. Opportunity to function as an entry-level dietitian in area of administrative, therapeutic or community dietetics. The graduating senior CUP student spends three 40-hour weeks in a mutually agreeable agency primarily under direction of staff dietitians or coordinators. (Formerly 7760:486)

**NUTR:487 Sports Nutrition (3 Credits)**

Prerequisites: NUTR 133, NUTR 426, BIOL 202, BIOL 203, CHEM 112, and CHEM 113. In-depth study of energy metabolism and utilization before, during, and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized. (Formerly 7760:487)

**NUTR:488 Practicum in Dietetics (1-3 Credits)**

Prerequisite: Approval of advisor/instructor. Practical experience in application of the principles of nutrition. (Formerly 7760:488)

**NUTR:489 Professional Preparation for Dietetics (1 Credit)**

Historical aspects of dietetics and where the profession is going. Specialty areas of dietetic practice are explored. Students prepare the application for dietetic internship. (Formerly 7760:489)

**NUTR:493 Nutrition for Athletes (3 Credits)**

Study of metabolism before, during, and after exercise. Factors affecting nutrient needs and peak performance of different athletic populations are emphasized. (Formerly 7760:493)

**NUTR:499 Senior Honors Project in Nutrition and Dietetics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and approval of honors preceptor. Individual study supervised by adviser. Student and preceptor develop goals, objectives and methodology. (Formerly 7760:499)

## Outdoor Education (ODED)

**ODED:430 Senior Honors Project: Outdoor Education (1-6 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and permission of student's preceptor. Carefully defined individual study demonstrating originality and sustained inquiry. (Formerly 5560:430)

**ODED:450 Application of Outdoor Education to the School Curriculum (4 Credits)**

Provides knowledge, skills and techniques useful in application of outdoor education to school curriculum. (Formerly 5560:450)

**ODED:452 Resources & Resource Management for Teaching Outdoor Education (4 Credits)**

Methodologies unique to outdoor education which incorporate a multisensory approach to learning. Instructional materials and resources which permit expansion of curriculum beyond the school building. (Formerly 5560:452)

**ODED:454 Resident Outdoor Education (2 Credits)**

Skills, program considerations, and organizational techniques unique to an extended, overnight, resident outdoor education program. Off-campus location for four days and three nights. (Formerly 5560:454)

**ODED:456 Outdoor Pursuits (4 Credits)**

Investigation and participation in practical experiences in outdoor pursuits. (Formerly 5560:456)

**ODED:460 Outdoor Education Practicum (2 Credits)**

Prerequisites: ODED 452 and ODED 454. Closely supervised practical experience in conjunction with regularly scheduled classroom meetings. Laboratory experience consists of active participation with an established outdoor education program. (Formerly 5560:460)

**ODED:464 Wilderness Education Association Outdoor Leadership (3 Credits)**

This is the Wilderness Education Association Standard Program for Outdoor Leadership Certification. (Formerly 5560:464)

**ODED:497 Independent Study (1-3 Credits)**

Prerequisites: Permission of adviser and supervisor of independent study. Provides varied opportunities for a student to gain first-hand knowledge and experience with existing outdoor education programs. (Formerly 5560:497)

## Pan African Studies (PAFS)

**PAFS:201 Introduction to Pan-African Studies (3 Credits)**

Prerequisite: ENGL 112. An interdisciplinary study from an Afrocentric perspective of African and African diaspora experiences. The course will focus on central issues related to the discipline. (Formerly 3002:201)

**Gen Ed:** - Domestic Diversity

**PAFS:252 The Black Experience 1619-1918 (3 Credits)**

Prerequisite: ENGL 112. This course explores ideas, people and events which will allow the class to re-think their individual and collective beliefs regarding Africa, Africans, and African-Americans as well as Black people throughout the Diaspora. More specifically, the period of 1619 to 1918 examines the origins of African-Americans beginning with their unwilling departure from West Africa, slavery, abolition, the Civil War, emancipation, reconstruction, historical achievements and striving to achieve first class citizenship in America. (Formerly 3002:252)

**Gen Ed:** - Social Science; - Domestic Diversity

**PAFS:253 The Black Experience 1918-Present (3 Credits)**

Prerequisite: ENGL 112. This course explores ideas, people and events which will allow students to re-think their individual and collective beliefs about Africa, Africans and African-Americans as well as Black people throughout the Diaspora. More specifically, the period of 1918 to Present examines the experiences of African-Americans following the Reconstruction. Topics include, but are not limited to, separate but equal doctrine, the civil rights movement, Black nationalism, segregation, desegregation and integration as strategies to ameliorate discrimination and achieve equal opportunity. (Formerly 3002:253)

**Gen Ed:** - Social Science; - Domestic Diversity

**PAFS:256 Diversity in American Society (3 Credits)**

Prerequisite: ENGL 112. Survey course covering demographic, social, economic, political, and educational realities of diversity in 21st Century. Focus on diversity and unity, historical overview. (Formerly 3002:256)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**PAFS:301 Civil Rights Movement in America: 1945-1974 (3 Credits)**

Social and political actions, events and environment which produces civil rights movement in America. Legal, political and organizational strategies; philosophical arguments; prominent civil rights activists. (Formerly 3002:301)

**PAFS:401 Seminar in Afro-American Studies (3 Credits)**

Prerequisite: HIST 361. Exploration and intensive examination of variety of issues related to role and minority group relations which normally stand outside the compass of any one subject matter area. (Formerly 3002:401)

**PAFS:405 African American Men's History and Studies (3 Credits)**

This course will examine the experiences of the African American Men from a historical, socio-economic, philosophical, religious/spiritual, psychological standpoint. (Formerly 3002:405)

**PAFS:410 African American Religious Experience (3 Credits)**

This course explores the diversity of African American religious beliefs, experiences, and expressions from the colonial era to the present. (Formerly 3002:410)

**PAFS:420 Special Topics in Afro-American Studies (1-3 Credits)**

(May be repeated for a maximum of three semester credits). Prerequisite: Permission of instructor. (Formerly 3002:420)

**PAFS:498 Independent Study: Pan-African (1-3 Credits)**

(May be repeated for a maximum of three semester credits).

Prerequisites: PAFS 201 and [HIST 361 or HIST 362] and permission of director. Directed study in a special field of interest chosen by student in consultation with instructor. (Formerly 3002:498)

## Philosophy (PHIL)

**PHIL:101 Introduction to Philosophy (3 Credits)**

Introduction to the methods of philosophy, important leading thinkers, and topics such as free will, consciousness, goodness, truth, and beauty. (Formerly 3600:101)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**PHIL:120 Introduction to Ethics (3 Credits)**

Introduction to problems of moral conduct through readings from the tradition and class discussions; nature of "good," "right," "ought" and "freedom". (Formerly 3600:120)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**PHIL:125 Theory & Evidence (3 Credits)**

An investigation of the concept of evidence and the criteria for the evaluation of theories in various areas of study, including natural sciences, social sciences, and philosophy. The role of scientific information in the formation and justification of value judgments. (Formerly 3600:125)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**PHIL:150 Critical Thinking (3 Credits)**

Examination of good and bad reasoning patterns. Topics may include rational and persuasive arguments, deductive and inductive inference, causal and basic statistical inference, logical fallacies, and moral arguments. (Formerly 3600:150)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**PHIL:170 Introduction to Logic (3 Credits)**

Introduction to logic and critical thinking. Includes such topics as meaning, informal fallacies, propositional logic, predicate and syllogistic logic and nature of induction. (Formerly 3600:170)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**PHIL:200 Philosophy of World Religions (3 Credits)**

A philosophical examination of the major religious traditions of the world including Christianity, Judaism, Islam, Buddhism, Hinduism, Taoism, tribal religions, and others. (Formerly 3600:200)

**Gen Ed:** - Global Diversity

**PHIL:207 Food Ethics (3 Credits)**

Considers ethical questions about food choices and policies, what individuals eat, and what actions society ought to take regarding food growth, processing, marketing, selling, and consumption. (Formerly 3600:207)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:210 Logic for Lawyers (3 Credits)**

An introduction to applied deductive and inductive logic reasoning skills, concentrating on applications to reasoning in legal contexts, e.g., courtroom argumentation and jury deliberations. (Formerly 3600:210)

**PHIL:211 History of Ancient Philosophy (3 Credits)**

History and development of ancient Greek philosophy including Presocratics, Socrates, Plato, Aristotle, and Hellenistic philosophers. Readings of primary sources in translation. (Formerly 3600:211)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**PHIL:241 Technology & Human Values (3 Credits)**

Examines impact of scientific and technical change upon individuals and society and associated values. Topics include digital and work life, biomedical technologies and the environment. (Formerly 3600:241)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:312 History of Medieval Philosophy (3 Credits)**

History of Western philosophy from end of Roman Empire to Renaissance. Major philosophers studied include St. Augustine, St. Anselm, Peter Abelard, St. Thomas Aquinas, Duns Scotus and William of Ockham. Readings from primary sources. (Formerly 3600:312)

**PHIL:313 History of Modern Philosophy (3 Credits)**

Analysis of major philosophical issues of 17th and 18th Centuries from Descartes through Kant. Readings of primary sources in translation. (Formerly 3600:313)

**PHIL:323 Advanced Topics in Ethics (3 Credits)**

(May be repeated with change of topic for a total of nine credits). An examination of selected topics in applied ethics and ethical theory, such as the ethics of cloning, evolutionary ethics, history of ethics and ethical issues from the Human Genome Project. Specific topics will be announced in the course schedule. (Formerly 3600:323)

**PHIL:324 Social & Political Philosophy (3 Credits)**

An examination of the normative justification of social and political institutions and practices. Analysis of concepts such as rights, justice, equality, and political obligation from historical as well as contemporary points of view. Application to particular social issues covered. (Formerly 3600:324)

**PHIL:327 Law and Morality (3 Credits)**

Nature of law examined from the perspective of the law's alleged obligation to be ethical and promote justice. (Formerly 3600:327)

**PHIL:329 Philosophy of International Law (3 Credits)**

Inquiry into the theories of utility of international law and the philosophical controversies surround them, e.g., international legal norms vs. international relations. (Formerly 3600:329)

**PHIL:331 Philosophy of Religion (3 Credits)**

Discussion and analysis of problems of theology, nature of religious experience, God's nature, existence, immortality, sin, faith, reason, holy revelation, and redemption. (Formerly 3600:331)

**PHIL:333 Philosophy of Science and Religion (3 Credits)**

Survey of conflict, independence, and integration models of science and religion. Topics include: origin and nature of the universe, life, mind, value, meaning, science, religion. (Formerly 3600:333)

**PHIL:340 Eastern Philosophy (3 Credits)**

Examination and evaluation of philosophical traditions from India, China and Japan, including Hinduism, Buddhism, Taoism and Confucianism. (Formerly 3600:340)

**Gen Ed:** - Global Diversity

**PHIL:350 Philosophy of Art (3 Credits)**

An examination of theories of the nature of art and the grounds of aesthetic evaluation. Analysis of such concepts as representation, form, content, expression, institution, convention, meaning and truth as they apply in the context of the arts. (Formerly 3600:350)

**PHIL:361 Biomedical Ethics (3 Credits)**

The identification, analysis and evaluation of ethical issues arising most critically in the biomedical setting, e.g., abortion, termination of treatment, definition of death, IVF, AIDS. (Formerly 3600:361)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:362 Business Ethics (3 Credits)**

Basic moral theories, moral principles, and the decision-making process applied to issues in business. (Formerly 3600:362)

**PHIL:363 Ethics of Policing (3 Credits)**

Basic moral concepts and their application to the criminal justice system. Concerned with such issues as punishment, the use of force, and conflict resolution. (Formerly 3600:363)

**PHIL:364 Digital Ethics (3 Credits)**

A critical examination of ethical issues arising in connection with digital technology, e.g., data privacy and use, artificial intelligence, censorship, and social media. (Formerly 3600:364)

**PHIL:365 Environmental Ethics (3 Credits)**

Examination of the moral relationships among human beings, other species, and their shared environment. Ethical aspects of agriculture, global warming, extinction, and wilderness. (Formerly 3600:365)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:366 Engineering Ethics (3 Credits)**

Addresses the specific ethical issues and problems that arise in the practice and study of engineering as a discipline. (Formerly 3600:366)

**Gen Ed:** - Complex Issues Facing Society

**PHIL:371 Philosophy of Mind (3 Credits)**

Nature of mind and the relationship between mind and body. Specific topics such as the limits of human reason, personal identity, the role of human thought in action and whether machines can think are also considered. (Formerly 3600:371)

**PHIL:374 Symbolic Logic (3 Credits)**

Systematic study of various forms of deduction. Techniques and topics include truth-functional analysis and quantification. (Formerly 3600:374)

**PHIL:392 Internship in Philosophy (1-3 Credits)**

Prerequisite: Minimum cumulative Grade Point Average of 2.7 or greater. Placement in appropriate public or private sector organization. Written assignments required. May repeat for maximum 6 credits. (Formerly 3600:392)

**PHIL:411 Plato (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Detailed study of the origin and development of Plato's theory of forms and the related theories of knowledge, ethics and politics. (Formerly 3600:411)

**PHIL:414 Aquinas (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. An in depth examination of the philosophy of St. Thomas Aquinas covering his contributions in metaphysics, epistemology, ethics, political theory, and philosophical theology. (Formerly 3600:414)

**PHIL:415 Augustine (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. An in depth examination of the philosophy of St. Augustine covering his contributions in metaphysics, epistemology, ethics, political theory, and philosophical theology. (Formerly 3600:415)

**PHIL:418 20th Century Analytic Philosophy (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Study of ideal and ordinary language movements in 20th century British and American philosophy. Deals with such figures as Russell, Carnap, Ayer, Moore, Wittgenstein, Ryle and Austen. (Formerly 3600:418)

**PHIL:421 Philosophy of Law (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Identification and critical evaluation of classic and contemporary theories and assumptions of law, including legal reasoning, justice, natural law, punishment, etc. (Formerly 3600:421)

**PHIL:424 Existentialism (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher, or permission of instructor. In-depth inquiry into the thought of Kierkegaard, Jaspers, Heidegger, Sartre, Tillich and other existentialists with their concern for the human condition. (Formerly 3600:424)

**PHIL:426 Phenomenology (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher, or permission. Inquiry into methodology of Husserl and Heidegger and their influence upon Western European and American thought. (Formerly 3600:426)

**PHIL:432 Aristotle (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Detailed study of Aristotle's metaphysics, philosophy of nature, philosophy of mankind and ethics. (Formerly 3600:432)

**PHIL:434 Kant (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Study of Kantian system of thought and its relation to history of philosophy. Includes thorough investigation of one or more of Kant's philosophic works. (Formerly 3600:434)

**PHIL:455 Philosophy of Feminism (3 Credits)**

Prerequisite: One course in philosophy with a grade of C or better, or permission of instructor. Introduction to feminist critiques of, and alternatives to, traditional western philosophy, including topics in ethics, metaphysics, epistemology, and religion. (Formerly 3600:455)

**Gen Ed:** - Domestic Diversity

**PHIL:456 Philosophy of Race & Ethnicity (3 Credits)**

Prerequisite: One course in Philosophy with a grade of C or higher. This course explores the philosophical assumptions behind the concepts of race and ethnicity within the United States and their metaphysical, epistemological, and phenomenological legitimacy as well as the political effects of racial and ethnic identities and the social reality of racial and ethnic designations (including white, African-American, Latina/o, American Indian and Asian American). (Formerly 3600:456)

**Gen Ed:** - Domestic Diversity

**PHIL:461 Neuroethics (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. Discussion and evaluation of contemporary theories of moral agency arising from developments in neuroscience. (Formerly 3600:461)

**PHIL:462 Theory of Knowledge (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Examination of nature of knowledge; theories of perception, conception and truth, problem of induction and relation of language to knowledge. (Formerly 3600:462)

**PHIL:464 Philosophy of Science (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Nature of scientific inquiry, types of explanation, laws and causality, theoretical concepts and reality. Also considers critics of hypothetical-deductive view of science, e.g., Hanson and Kuhn. (Formerly 3600:464)

**PHIL:471 Metaphysics (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Theories about ultimate nature and ultimate explanation of reality. Uses readings from classical and contemporary sources. (Formerly 3600:471)

**PHIL:480 Seminar in Philosophy (3 Credits)**

(May be repeated, for additional credit, with change of topic).

Prerequisite: Completion of one course in philosophy with a grade of "C" or higher. Varying philosophical topics not covered in regular course offerings. (Formerly 3600:480)

**PHIL:481 Philosophy of Language (3 Credits)**

Prerequisite: Completion of one course in philosophy with a grade of C or higher. An examination of contemporary debates in the philosophy of language and various influential views on meaning, reference, truth, and the content of belief. (Formerly 3600:481)

**PHIL:490 Senior Honors Project in Philosophy (1-3 Credits)**

Prerequisite: Senior standing in Honors Program or senior honors standing as Philosophy major, and permission of Philosophy Department Honors Preceptor. Research leading to completion of senior honors thesis involving original work under faculty supervision. A maximum of 3 credit hours can be applied towards a philosophy major or minor. (May be repeated for 1-3 credits for a maximum of 6 credits) (Formerly 3600:490)

**PHIL:497 Individual Study in Philosophy (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: PHIL 101, PHIL 120, PHIL 170, PHIL 211, PHIL 312, and PHIL 313. Directed independent study of philosopher, philosophy or philosophical problem under guidance of selected faculty member. Subject matter determined by selected faculty member in consultation with student. Graduate credit requires significant additional work which may include additional research paper. (Formerly 3600:497)

## Physical Education (PHED)

**PHED:102 Physical Education Activities I: Fitness, Leisure, & Healthy Life Style (3 Credits)**

Introduction to fitness and leisure activities, as well as healthy life style. Knowledge of developing programs that lead to fitness, leisure and healthy life style for individuals as well as groups. (Formerly 5550:102)

**PHED:120 Archery (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:120)

**PHED:121 Badminton (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:121)

**PHED:122 Basketball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:122)

**PHED:123 Bowling (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:123)

**PHED:126 Fitness and Wellness (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:126)

**PHED:127 Golf (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:127)

**PHED:128 Gymnastics (Apparatus) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:128)

**PHED:129 Gymnastics (Tumbling) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:129)

**PHED:130 Handball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:130)

**PHED:131 Indoor Soccer (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:131)

**PHED:132 Karate (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:132)

**PHED:133 Lifeguard Training (2 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:133)

**PHED:134 Modern Dance (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:134)

**PHED:135 Racquetball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:135)

**PHED:136 Rugby (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:136)

**PHED:138 Scuba (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:138)

**PHED:139 Self Defense (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:139)

**PHED:140 Skiing (Cross-Country) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:140)

**PHED:141 Skiing (Downhill) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:141)

**PHED:142 Soccer (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:142)

**PHED:143 Social Dance (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:143)

**PHED:145 Squash Rackets (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:145)

**PHED:146 Swimming (Beginning) (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:146)

**PHED:147 Swimming (Intermediate) (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:147)

**PHED:149 Team Handball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:149)

**PHED:150 Tennis (Beginning) (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:150)

**PHED:151 Volleyball (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:151)

**PHED:152 Water Polo (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:152)

**PHED:153 Water Safety (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:153)

**PHED:154 Wrestling (0.5 Credits)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:154)



**PHED:155 Basic Kayaking (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. (Formerly 5540:155)

**PHED:170 Varsity Baseball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:170)

**PHED:171 Varsity Basketball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:171)

**PHED:172 Varsity Cross Country (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:172)

**PHED:173 Varsity Football (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:173)

**PHED:174 Varsity Golf (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:174)

**PHED:175 Varsity Soccer (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:175)

**PHED:176 Varsity Softball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:176)

**PHED:177 Varsity Swimming (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:177)

**PHED:178 Varsity Tennis (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:178)

**PHED:179 Varsity Track (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:179)

**PHED:180 Varsity Wrestling (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports(170-181).\*\* Varsity sports are one credit each. (Formerly 5540:180)

**PHED:181 Varsity Volleyball (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:181)

**PHED:182 Varsity Riflery (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:182)

**PHED:183 Varsity Cheerleading (1 Credit)**

Participation in individual and group sports. Individual can acquire knowledge and skill in activities which may be of value and satisfaction throughout life. Permission of coach necessary for enrollment in varsity sports (170-181). Varsity sports are one credit each. (Formerly 5540:183)

**PHED:190 Special Topics: General Studies Physical Education (0.5-2 Credits)**

Weight training, self-defense for the blind, water safety instruction, beginning yoga, tai chi, billiards, intermediate and advanced bowling, intermediate and advanced golf, advanced self-defense. (Formerly 5540:190)

**PHED:193 Orientation to Physical and Health Education (3 Credits)**

Introduction to physical and health education to students who pursuit state license in teaching physical and health education. It's also the required course before the admission to the college of education. (Formerly 5550:193)

**PHED:194 Sports Officiating (2 Credits)**

Knowledge of rules for interscholastic sports and officiating techniques. (Formerly 5550:194)

**PHED:195 Foundations of Physical Education (3 Credits)**

Concepts analysis of games and play and application of these concepts to the teaching/learning process in physical education at all ages. (Formerly 5550:195)

**PHED:199 Special Topics: General Studies Physical Education (0.5-2 Credits)**

See department for course description. (Formerly 5540:199)

**PHED:200 Aquatic Facility Management (3 Credits)**

This course is designed to explore, acquire, and discuss knowledge and techniques of aquatic facility operation and management. (Formerly 5550:200)

**PHED:201 Water Safety Instructor (2 Credits)**

This course is designed to train students to teach swimming and water safety courses from Pre-K to adult. (Formerly 5540:201)

**PHED:202 Diagnosis of Motor Skills (3 Credits)**

This course introduces athletic trainers and physical education majors to the sciences of diagnosing motor skills. (Formerly 5550:202)

**PHED:203 Measurement & Evaluation in Physical Education (3 Credits)**

Statistical procedures needed for analysis and interpretation of tests. Evaluation procedures, testing instruments, and techniques for administering tests are discussed and practiced. Three hours lecture. (Formerly 5550:203)

**PHED:204 Individual and Team Sports (2 Credits)**

Intro to individual and team sports that are commonly taught in schools. Course presents knowledge, fundamental skill development, psychomotor skills analysis for the content areas. (Formerly 5550:204)

**PHED:205 Team Sports (2 Credits)**

The purpose of this course is to teach students how to teach team sports. (Formerly 5550:205)

**PHED:207 Introduction to Rock Climbing (1 Credit)**

This course teaches basic rock-climbing skills. No previous experience in necessary. (Formerly 5540:207)

**PHED:211 First Aid & Cardiopulmonary Resuscitation (2 Credits)**

Based on American Red Cross standards for first aid and cardiopulmonary resuscitation. Instruction and skills practice for sudden illness/emergencies is provided. Two hours lecture. (Formerly 5550:211)

**PHED:212 First Aid and CPR for Professional Rescuer (2 Credits)**

Prerequisite: Permission of instructor. First aid and cardiopulmonary resuscitation for health care professionals based upon American Red Cross standards. Instruction and skills practice for sudden illness/emergencies is provided. (Formerly 5550:212)

**PHED:235 Concepts of Motor Learning & Development (3 Credits)**

This course will introduce key motor learning concepts and analysis of developing fundamental motor skills. Three hours lecture. (Formerly 5550:235)

**PHED:245 Adapted Physical Education (3 Credits)**

Identification of atypical movement among various exceptional individuals, with adapted physical education programming experience in a laboratory setting. (Formerly 5550:245)

**PHED:306 PE Act IV: Badminton/Golf (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of badminton and golf. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:306)

**PHED:307 Physical Education Activities V (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of tennis and volleyball. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:307)

**PHED:308 PE Act IV: Dance & Tumbling (2 Credits)**

Course presents knowledge, fundamental skill development, and psychomotor skill analysis for the content areas of dance and tumbling. One hour lecture, two hours lab. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:308)

**PHED:335 Movement Experiences for Children (3 Credits)**

Prerequisites: PHED 130, PHED 193, and PHED 235. Course focuses on use of fundamental motor skill analysis to structure movement lessons for children from early childhood through elementary years. One hour lecture, two hours lab. (20 clinical hours, 10 field hours.) Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:335)

**PHED:336 Motor Learning & Development for Early Childhood (2 Credits)**

Physical fitness, fundamental motor skills, motor development and learning for early childhood, birth to age eight. Creating an environment of motor experiences for young children (10 field hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:336)

**PHED:428 Nutrition for Teachers and Coaches (3 Credits)**

Covers nutritional basics and topics related to teaching physical education/health and coaching athletes, including basic nutrition, eating disorders, meal preparation, and trends in nutrition. (Formerly 5550:428)

**PHED:436 Foundations & Elements of Adapted Physical Education (3 Credits)**

Principles, components, and strategies necessary in providing motor activities for handicapped students via application of a neuro-developmental model and alternate methods. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:436)

**PHED:446 Instructional Techniques in Secondary Physical Education & Health (3 Credits)**

Prerequisites: PHED 102, PHED 193, PHED 204, and PHED 205. Instructional strategies for teaching secondary students in physical and health education. A variety of instructional models will be introduced appropriate to the learners' age and development. It is a required course for the physical education licensure. Two hours lecture, two hours lab (30 clinical hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:446)

**PHED:447 Instructional Techniques for Children in Physical Education & Health Education (3 Credits)**

Prerequisites: PHED 130 and PHED 193. Instructional strategies for teaching children in physical and health education. A variety of instructional models will be introduced appropriate to the learners' age and development. Required for the physical education licensure. (30 clinical hours). Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:447)

**PHED:450 Organization & Administration of Physical Education, Intramural and Athletics (3 Credits)**

Prerequisite: Admission to the Sport Science and Wellness Program or instructor's permission. Investigation of procedures for conducting physical education, intramural, and athletic programs. Includes tournament designs, supplies and equipment, liability, curriculum, and general administration. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:450)

**PHED:451 Assessment & Evaluation in Adapted Physical Education (3 Credits)**

Investigation, analysis, and selection of appropriate assessment instruments, as well as methodology for determining instructional objectives and activities for handicapped students. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:451)

**PHED:452 Foundations of Sport Science, Physical and Health Education (3 Credits)**

Prerequisite: Admission to the Sport Science and Wellness Program. Overview of the emergence of sport science, physical and health education as a profession and the supporting role of underlying scholarly and scientific disciplines. Three hours lecture. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:452)

**PHED:490 Workshop in Physical Education (1-3 Credits)**

Practical, intensive and concentrated involvement with current curricular practices in areas related to physical education. Students must be in the College of Education to take 300/400 level courses. (Formerly 5550:490)

**PHED:494 Student Teaching Colloquium for Physical & Health Education (2 Credits)**

Corequisite: PHED 495. Students meet during student teaching to discuss concerns about student teaching and analyze previous learning as it relates to their future as a professional educator. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:494)

**PHED:495 Student Teaching for Physical & Health Education (11 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing OAE subject test, and approved portfolio. Corequisite PHED 494. Planned teaching experience in schools selected and supervised by the Office of Student Teaching. (Formerly 5550:495)

**PHED:497 Independent Study: Physical Education (1-6 Credits)**

Prerequisite: Permission of adviser. Analysis of specific topic related to a current problem in physical education or sport and exercise science. May be repeated for a maximum of 12 credits. \*Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:497)

## Physics (PHYS)

**PHYS:130 Descriptive Astronomy (4 Credits)**

Qualitative introduction to astronomy, intended primarily as a first science course for non-science majors. Includes laboratory and observational activities. (Formerly 3650:130)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**PHYS:133 Music, Sound & Physics (4 Credits)**

Qualitative introduction to the physics of sound, its properties, perception and reproduction, including acoustical principles of musical instruments. Laboratory and observational activities included. (Formerly 3650:133)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**PHYS:137 Light (4 Credits)**

Introductory, qualitative course dealing with the nature of light and the interaction of light with various materials to produce common visual effects. Laboratory activities provide experience in scientific investigation. (Formerly 3650:137)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**PHYS:150 Manufacturing Physics (4 Credits)**

Prerequisite: Admission to the Manufacturing Engineering Technology program. Corequisite: MATH 154. Applications of physics to manufacturing including two dimensional motion, vectors, forces, statics, torque and simple electronic circuits. Laboratory. (Formerly 3650:150)

**PHYS:160 Technical Physics: Mechanics (4 Credits)**

Corequisite: MATH 154. Applications of mechanics which include one and two dimensional motion, vectors, forces, equilibrium, work, power, conservation of energy, rotational motion & torque. Laboratory (Formerly 3650:160)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science w/LAB

**PHYS:161 Technical Physics: Mechanics I (2 Credits)**

Corequisite: MATH 153. Principles of mechanics that include motion, vectors, forces, equilibrium; also significant figures and unit conversions. Laboratory. (Formerly 3650:161)

**Gen Ed:** - Natural Science w/LAB

**PHYS:162 Technical Physics: Mechanics II (2 Credits)**

Prerequisites: MATH 153 and PHYS 161. Principles of mechanics that include work, power, conservation of energy, rotational motion, torque. Laboratory. (Formerly 3650:162)

**Gen Ed:** - Natural Science w/LAB

**PHYS:163 Technical Physics: Electricity & Magnetism (2 Credits)**

Prerequisites: MATH 154 and PHYS 160 with a grade of C- or better in both. Principles and applications of electricity and magnetism. Electrostatics, DC circuits, magnetism, electromagnetism, and AC circuits. Laboratory. (Formerly 3650:163)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**PHYS:164 Technical Physics: Heat & Light (2 Credits)**

Prerequisites: [PHYS 160 with a grade of C- or better] and MATH 154. Principles and applications of heat and light: heat energy, thermodynamics, electromagnetic waves, geometric and physical optics, introduction to quantum mechanics, and radiation. (Formerly 3650:164)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Natural Science

**PHYS:261 Physics for Life Sciences I (4 Credits)**

Prerequisites: high school algebra, trigonometry or placement test or appropriate AP score or MATH 154 or MATH 149 as corequisite. Introductory course for professional work in biology and health professions and services. Emphasizes life science applications. Mechanics: laws of motion, force, torque, work, energy, power; properties of matter: gases, liquids, solids, fluid mechanics. Includes laboratory activities. (Formerly 3650:261)

**Gen Ed:** - Natural Science w/LAB

**PHYS:262 Physics for Life Sciences II (4 Credits)**

Prerequisite: PHYS 160 or PHYS 261. Laws of thermodynamics, kinetic theory. Wave phenomena: sound, light, optics; electricity and magnetism; atomic and nuclear physics; radioactivity. Includes laboratory activities. (Formerly 3650:262)

**Gen Ed:** - Natural Science w/LAB

**PHYS:267 Life Science Physics Computations I (1 Credit)**

Corequisites: PHYS 261. Optional companion courses to PHYS 261 and PHYS 262 provides additional computational experience in applications of physics to life sciences, emphasizing use of algebra and trigonometry. Particularly recommended for student with modest mathematical preparation. (Formerly 3650:267)

**PHYS:268 Life Science Physics Computations II (1 Credit)**

Corequisites: PHYS 262. Optional companion courses to PHYS 261 and PHYS 262 provides additional computational experience in applications of physics to life sciences, emphasizing use of algebra and trigonometry. Particularly recommended for student with modest mathematical preparation. (Formerly 3650:268)

**PHYS:291 Elementary Classical Physics I (4 Credits)**

Prerequisite: Completion of MATH 221 with a grade of "C-" or better, or AP Calculus AB, or BC test score of 3 or better. Introductory physics for students of science and engineering. Classical kinematics and dynamics as related to contemporary physics. Oscillations, thermodynamics. Vectors and some calculus introduced as needed. Includes laboratory activities. (Formerly 3650:291)

**Gen Ed:** - Natural Science w/LAB

**PHYS:292 Elementary Classical Physics II (4 Credits)**

Prerequisite: PHYS 291. Fluid mechanics, mechanical and electromagnetic waves and wave phenomena, basic laws of electromagnetism, interference and diffraction, coherence, geometrical and physical optics. Includes laboratory activities. (Formerly 3650:292)

**Gen Ed:** - Natural Science w/LAB

**PHYS:293 Physics Computations I (1 Credit)**

Corequisite: PHYS 291. Optional companion courses to PHYS 291 and PHYS 292 provides experience in problem solving, and elaborates application of calculus to simple physical phenomena. Particularly recommended for a freshman and for student with modest preparation in mathematics or physical sciences. (Formerly 3650:293)

**PHYS:294 Physics Computations II (1 Credit)**

Corequisite: PHYS 292. Optional companion courses to PHYS 291 and PHYS 292 provides experience in problem solving, and elaborates application of calculus to simple physical phenomena. Particularly recommended for a freshman and for student with modest preparation in mathematics or physical sciences. (Formerly 3650:294)

**PHYS:301 Modern Physics (3 Credits)**

Prerequisite: PHYS 292. Special relativity, introduction to quantum physics, hydrogen atom, atomic physics, selected applications of quantum physics. (Formerly 3650:301)

**PHYS:322 Intermediate Laboratory I (3 Credits)**

Prerequisites: [PHYS 262 and MATH 221] or PHYS 292. Modern physics experiments focusing on electronic phenomena such as: electron charge/mass ratio, semiconductor devices, superconductivity, and energy quantization. (Formerly 3650:322)

**PHYS:323 Intermediate Laboratory II (3 Credits)**

Prerequisites: [PHYS 262 and MATH 221] or PHYS 292. Contemporary experiments focusing on optical phenomena such as: interference, diffraction, holography, fiber optics, and spectroscopy. (Formerly 3650:323)

**PHYS:340 Thermal Physics (3 Credits)**

Prerequisite: PHYS 262 or PHYS 292. Basic principles of thermal and statistical physics. Ensembles, laws of thermodynamics, equilibrium, irreversibility, equipartition theorem, canonical distribution, Maxwell distribution, phase changes, cyclic processes, transport processes. (Formerly 3650:340)

**PHYS:350 Modeling & Simulation (4 Credits)**

Prerequisites: [PHYS 262 or PHYS 292] and MATH 221. Corequisite: MATH 222. Interdisciplinary course stressing modeling of natural phenomena using fundamental principles and their simulation. Topics may include oscillations and chaos, random systems, potentials and fields, wave phenomena. (Formerly 3650:350)

**PHYS:399 Undergraduate Research (1-6 Credits)**

(May be repeated) Prerequisite: Permission of instructor. Participation in current research project in department under supervision of faculty member. (Formerly 3650:399)

**PHYS:401 Everyday Physics (4 Credits)**

Prerequisite: Permission of instructor. College-level physics content for future teachers. Inquiry, discovery, activities, discussion, and experiential learning take place in a laboratory/embedded-lecture environment. (Formerly 3650:401)

**PHYS:406 Elements of Optics (3 Credits)**

Prerequisites: PHYS 292 and MATH 335. Selected topics in optics such as geometrical, wave (diffraction and interference, polarization, scattering etc.), and quantum optics (lasers); design of optical systems based on optical design platforms.

**PHYS:431 Mechanics (3 Credits)**

Prerequisites: PHYS 291 and MATH 335. Mechanics at an intermediate level. Newtonian mechanics, motion of a point particle, momentum and energy, oscillations, Lagrange's equations, central force problems, non-inertial frames, rotation of rigid bodies, coupled oscillators and normal modes. (Formerly 3650:431)

**PHYS:432 Mechanics II (3 Credits)**

Prerequisite: PHYS 431. Advanced mechanics at the senior or beginning graduate level, moving coordinate systems, mechanics of continuous media, Lagrange's equations, tensor algebra and stress analysis, rotation of rigid bodies, vibration theory. (Formerly 3650:432)

**PHYS:436 Electromagnetism (3 Credits)**

Prerequisites: PHYS 292 and MATH 335 or permission of instructor. Electricity and magnetism using vector calculus. Electrostatics and magnetostatics, electric and magnetic fields, dielectric and magnetic materials, electromagnetic induction, Maxwell's field equations in differential form, wave solutions. (Formerly 3650:436)

**PHYS:437 Electromagnetism II (3 Credits)**

Prerequisite: PHYS 436. Special relativity, four vectors, Maxwell's equations in covariant form; propagation, reflection and refraction of electromagnetic waves; multipole radiation. (Formerly 3650:437)

**PHYS:441 Quantum Physics (3 Credits)**

Prerequisites: PHYS 301 and MATH 335. Introduction to quantum theory, Schrödinger equation, observables, angular momentum, perturbation theory, variational principle, bound states, scattering theory, radiative interactions, spin, Pauli Exclusion Principle, applications of quantum mechanics to atomic, nuclear and solid state physics. (Formerly 3650:441)

**PHYS:442 Quantum Physics II (3 Credits)**

Prerequisite: PHYS 441. Applications of quantum mechanics to atomic, nuclear and solid state physics. Tunneling and alpha decay, periodic potential, hydrogen and helium atoms, interatomic forces, quantum statistics. (Formerly 3650:442)

**PHYS:451 Advanced Laboratory (3 Credits)**

Prerequisite: PHYS 323. Experimental techniques, applicable to research-type projects in contemporary physics. Advanced scanning probe techniques including atomic force microscopy, electrostatic nanolithography, radioactive spectroscopy, and lasers. (Formerly 3650:451)

**PHYS:452 Advanced Laboratory II (3 Credits)**

Prerequisite: PHYS 323 or permission of instructor. Experimental projects applicable to contemporary physics. Diode and dye lasers, NMR, SPM, chaos, electron tunneling and fiber optics. (Formerly 3650:452)

**PHYS:470 Introduction to Solid-State Physics (3 Credits)**

Prerequisite: PHYS 441. Account of basic physical processes occurring in solids, with emphasis on fundamental relation between these processes and periodicity of crystalline lattice. (Formerly 3650:470)

**PHYS:481 Methods of Mathematical Physics (3 Credits)**

Prerequisites: PHYS 292 and MATH 335. Survey of mathematical techniques useful in physics. Matrices, eigenvalues, vector analysis, ordinary and partial differential equations, Green's functions, complex variable theory, Fourier series, integral transforms. (Formerly 3650:481)

**PHYS:482 Methods of Mathematical Physics II (3 Credits)**

Prerequisites: PHYS 292, MATH 335 and senior or graduate standing in a physical science or engineering. Vectors, generalized coordinates, tensors, calculus of variations, vector spaces, linear transformations, matrices, eigenvalues, Hilbert space, boundary value problems, transcendental functions, complex variables, analytic functions, Green's functions, integral equations. (Formerly 3650:482)

**PHYS:488 Selected Topics: Physics (1-4 Credits)**

(May be repeated) Prerequisite: Permission. Consideration of selected topics, procedures, techniques, materials or apparatus of current interest in physics. (Formerly 3650:488)

**PHYS:490 Workshop: Physics (1-4 Credits)**

(May be repeated) Group studies of special topics in physics. May not be used to meet undergraduate or graduate major requirements in physics. May be used for elective credit only. (Formerly 3650:490)

**PHYS:491 Capstone Project in Physics A (2 Credits)**

Prerequisites: PHYS 301 and MATH 335 and permission. Proposal phase of a capstone research project in physics or a research topic relevant to physics, supervised by a faculty member of the department.

**Gen Ed:** - Capstone

**PHYS:492 Capstone Project in Physics B (2-4 Credits)**

Prerequisite: Permission. Pre/Corequisite: PHYS 491. Final phase of a capstone research project in physics or a research topic relevant to physics, supervised by a faculty member of the department. (Formerly 3650:492)

**PHYS:497 Independent Study: Physics (1-4 Credits)**

(May be repeated) Prerequisite: Permission. Further investigations of various selected topics in physics, under guidance of faculty member. (Formerly 3650:497)

**PHYS:498 Physics Colloquium (1 Credit)**

Lectures on current research topics in physics by invited speakers. May be repeated but only one credit counts toward the M.S. Degree. Offered on a credit/noncredit basis only. (Formerly 3650:498)

## Political Science (POLIT)

**POLIT:100 Government & Politics in the United States (3 Credits)**

Examination of American political system with emphasis on fundamental principles, ideas, institutions and processes of modern government. Lecture and discussion sections (day classes only). (Formerly 3700:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**POLIT:150 World Politics & Government (3 Credits)**

Introduction to international politics and an examination of the governments and foreign policies of selected states from a comparative perspective. (Formerly 3700:150)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**POLIT:203 Introduction to Political Thought (3 Credits)**

Survey of major ideas and concepts of Western political theory from pre-Socrates through period of Enlightenment. (Formerly 3700:303)

**POLIT:210 State & Local Government & Politics (3 Credits)**

Examination of institutions, processes and intergovernmental relations at state and local levels. (Formerly 3700:210)

**POLIT:300 Comparative Politics (3 Credits)**

Introduction to comparative political analysis; description of political systems of Great Britain, France, Germany and Soviet Union; contrast between democracy and totalitarianism. (Formerly 3700:300)

**Gen Ed:** - Global Diversity

**POLIT:301 Introduction to Political Research (3 Credits)**

Introduction to the research process in political science through an introduction to the logic of social science inquiry and contemporary techniques of analysis. (Formerly 3700:301)

**POLIT:302 American Political Ideas (3 Credits)**

Study of major thinkers and writers of American political thought. (Formerly 3700:302)

**POLIT:304 Modern Political Thought (3 Credits)**

Examination of central concepts of political thought from 19th Century to present. Modern liberalism, communism, fascism and totalitarianism emphasized. (Formerly 3700:304)

**POLIT:310 International Politics & Institutions (3 Credits)**

Relations among nations examined in political context. (Formerly 3700:310)

**POLIT:311 Developing States in World Politics (3 Credits)**

Examines how developing states are conditioned by the global system and how they attempt to modify it. (Formerly 3700:311)

**POLIT:313 International Law (3 Credits)**

Prerequisite: POLIT 150 or POLIT 310. This course explores law at the international level and will focus on diplomacy, treaties, covenants, laws of war, and the legal role of international organizations. (Formerly 3700:313)

**POLIT:321 European Politics (3 Credits)**

Description and analysis of government and politics of France, Germany, Italy, the United Kingdom, and Russia, with appropriate references to the European Union. (Formerly 3700:321)

**POLIT:326 Politics of Developing Nations (3 Credits)**

General introduction to concepts and theories of political development and political institutions, elite-recruitment and political processes of selected emerging nations. (Formerly 3700:326)

**POLIT:328 American Foreign Policy Process (3 Credits)**

Examination of American foreign policy-making process; public opinion and other limitations on policy; specific contemporary problems in selected foreign policy areas. (Formerly 3700:328)

**POLIT:333 Social Entrepreneurship (3 Credits)**

Scholarly analysis of successful social and political entrepreneur's efforts to address real world problems and an interdisciplinary analysis of the strategies and skills they deploy. (Formerly 3700:333)

**POLIT:334 Law, Mediation, and Violence (3 Credits)**

A critical analysis of the practical challenges central to learning to better prevent, resolve, or reduce the harms associated with conflict. (Formerly 3700:334)

**POLIT:335 Law & Society (3 Credits)**

This course will examine how law constructs and constrains political conflict, and how legal institutions mediate, reinforce, and challenge existing power relationships. (Formerly 3700:335)

**POLIT:337 Terrorism: Perpetrators, Politics and Response (3 Credits)**

Survey of terrorist organizations, political implications of terrorism, and governmental response to terrorism. (Formerly 3700:337)

**POLIT:339 Terrorism and the Constitution (3 Credits)**

Primary goals include learning about the balance courts try to strike in safeguarding public safety and respect for personal freedom in a constitutional republic. (Formerly 3700:339)

**POLIT:341 The American Congress (3 Credits)**

Examination of structure and function of Congress, with comparative materials on legislative process on all levels. Presidential and congressional conflict examined. (Formerly 3700:341)

**POLIT:345 World Politics in Film (3 Credits)**

This course examines the political meaning and content of films. Themes investigated include war, the nuclear age and its consequences, postindustrial society, the future, and unemployment. (Formerly 3700:345)

**POLIT:346 American Politics in Film (3 Credits)**

Examines the portrayal and representation of American politics through cinema. Emphasis on the positive and negative roles that movies play in educating the public. (Formerly 3700:346)

**POLIT:350 The American Presidency (3 Credits)**

The presidency as focal point of politics, policy and leadership in American political system. (Formerly 3700:350)

**POLIT:351 Inside the White House (3 Credits)**

The course looks behind the curtain at the inner-workings of the White House. Topics include: physical structure of the White House, travel, protection, and staff. (Formerly 3700:351)

**POLIT:353 Future International Threats (3 Credits)**

A study of future threats through the use of scenario construction and future projections. (Formerly 3700:353)

**POLIT:360 The Judicial Process (3 Credits)**

Role of police, lawyers, courts and judges in context of American political process. Structure and process of judicial policy making and limitations on judicial power. (Formerly 3700:360)

**POLIT:361 Politics of the Criminal Justice System (3 Credits)**

Examines the impact of the political process and political institutions on criminal law and policy. (Formerly 3700:361)

**POLIT:363 Crime, Punishment, Politics: A Comparative Perspective (3 Credits)**

Comparative study of the structures, practices, power relationships, and politics in various criminal justice systems. (Formerly 3700:363)

**POLIT:370 Public Administration: Concepts & Practices (3 Credits)**

Examines current administrative theories and their application in public bureaucracies. Emphasis is placed on practices to improve the quality of public sector administration. (Formerly 3700:370)

**POLIT:375 Women in Politics (3 Credits)**

Course examines the past, present, and future role of women in politics. (Formerly 3700:375)

**POLIT:381 State Politics (3 Credits)**

Analysis of the state political process in terms of its capacity to deal with a wide range of socioeconomic problems. Special emphasis on legislators, administrators, parties and interest groups. (Formerly 3700:381)

**POLIT:391 Honors in Political Science (3 Credits)**

Prerequisites: at least 17 credits and a 3.25 average in political science and permission of adviser. (Formerly 3700:391)

**POLIT:392 Selected Topics in Political Science (1-3 Credits)**

(May be repeated, but no more than three credits can be applied to major in political science) Topics of substantial current importance, specialized topics within political science or experimental courses. (Formerly 3700:392)

**POLIT:395 Internship in Government & Politics (2-9 Credits)**

(May be taken twice for a total of nine hours. No more than four credits may be applied toward major in political science.) Prerequisite: Completion of 3 courses with a 2.20 GPA in political science. Supervised individual placement with political office holders, party groups, governmental agencies, law firms and other organizations providing professional-level work. (Formerly 3700:395)

**POLIT:397 Independent Study: Political Science (1-4 Credits)**

(May be repeated for a total of four credits) Prerequisites: Minimum academic standing of a Senior and a 3.00 GPA. (Formerly 3700:397)

**POLIT:400 Political Extremism & Violence (3 Credits)**

This course examines the causes and consequences of political extremism and political violence in democracies and failed democracies. (Formerly 3700:400)

**POLIT:401 Advanced Topics in Research Methods (3-6 Credits)**

Prerequisite: POLIT 301 or SOCIO 301. Special advanced topics of interest in research methods. This course can be taken twice if topics are different, for six credits total. (Formerly 3700:401)

**POLIT:402 Politics and the Media (3 Credits)**

Examination of relationships between the press, the news media and political decision makers. (Formerly 3700:402)

**POLIT:403 Media, Crime and Public Opinion (3 Credits)**

Examines the social construction of crime in mass media and how it impacts public, including fear of crime, beliefs about crime causation, and crime policy. (Formerly 3700:403)

**POLIT:405 Politics in the Middle East (3 Credits)**

The rise of the state system in the Middle East after World War I; an analysis of the socio-cultural, ideological forces influencing the political behavior of the people of the Middle East. In-depth study of selected political systems. (Formerly 3700:405)

**POLIT:406 Comparative Constitutional Law (3 Credits)**

This course will explore the essential principles and theories of law and constitutionalism and then apply them, comparatively, to several different constitutional traditions from various regions of the world. (Formerly 3700:406)

**POLIT:410 International Security Policy (3 Credits)**

Prerequisite: POLIT 310 or HIST 461. Introduction to political uses of military forces. Major focus on methodological, conceptual, and ethical dilemmas confronted in developing and implementing security policy. (Formerly 3700:410)

**POLIT:413 Global Public Health Threats (3 Credits)**

An introduction to comparative global biological and public health security policy. Topics include: infectious disease outbreaks, bioterrorism, and potential "nano-terrorism." (Formerly 3700:413)

**POLIT:414 Wealth and Power Among Nations (3 Credits)**

Studies relationship between politics and economy; mesh theoretical perspectives with exploration of key empirical issues. Topics: trade, relations, unions, finance, development, aid, sanctions. (Formerly 3700:414)

**POLIT:417 Environmental Security and Climate Politics (3 Credits)**

The course examines the relationship between the politics of climate change and environmental security. Students will examine a wide range of environmental security issues and will assess the effectiveness of efforts to resolve these issues. (Formerly 3700:417)

**POLIT:418 Weapons of Mass Destruction (3 Credits)**

An exploration of the development and proliferation of weapons of mass destruction and their use and potential use by nation states, extremist groups, and/or wayward individuals. Weapons categories explored include: biological, chemical, nuclear, radiological, cyber, and future threats. (Formerly 3700:418)

**POLIT:419 Homeland Security Policy and Process (3 Credits)**

The course will explore the concept of homeland security, the complexity of homeland security and disaster policy in a federal system, threats to homeland security, and the challenges to effective homeland security and disaster policy in the United States. (Formerly 3700:419)

**POLIT:422 Understanding Racial and Gender Conflicts (3 Credits)**

This is the core course the Certificates in Racial and Gender Conflict, providing students with an opportunity to intensively examine racial and gender conflict. (Formerly 3700:422)

**POLIT:427 Campaign Battleground (3 Credits)**

This course will provide a general framework with which to understand presidential, congressional, state, and local elections from the perspective of campaign professional and political observers. The course will follow campaigns in real time, investigating the strategy, tactics, and conduct of major party candidates and campaigns. It will also examine coverage of national, state, and local races by the media as well as analyze current polling. The course will include guest speakers including academics, campaign professionals, public officials, and journalists. (Formerly 3700:427)

**POLIT:428 Ohio Politics (3 Credits)**

Prerequisite: POLIT 100. This course focuses on factors that make Ohio economically competitive. Material focuses on recent election results, public opinion polling and influence of socioeconomic factors. (Formerly 3700:428)

**POLIT:437 Government Versus Organized Crime (3 Credits)**

The course gives a history of organized crime and the government's responses to fight it. Newly emerging international crime groups are also discussed. (Formerly 3700:437)

**POLIT:440 Survey Research Methods (3 Credits)**

Prerequisite: POLIT 100. Study of survey research methods as applied to the analysis of public opinion, political behavior, and public policy formation. (Formerly 3700:440)

**POLIT:441 The Policy Process (3 Credits)**

Prerequisites: Eight credits in political science. Intensive study of policy-making process, emphasizing roles of various participants in executive and legislative branches as well as private individuals and groups. (Formerly 3700:441)

**POLIT:442 Methods of Policy Analysis (3 Credits)**

Prerequisite: POLIT 301. Examines variety of methods available for analyzing public policies. Techniques of cost benefit analysis, evaluation research quasi-experimentation are covered as well as consideration of ethical questions in policy analysis, the practical problems facing policy analysts. (Formerly 3700:442)

**POLIT:443 Political Scandals & Corruption (3 Credits)**

This course will provide information on major political scandals, including media coverage, public opinion, the role of special prosecutors, and the impacts of scandals. (Formerly 3700:443)

**POLIT:445 Al Qaeda and ISIS (3 Credits)**

This course explores the causes and consequences of Al Qaeda and ISIS ideologies and tactics around the world. (Formerly 3700:445)

**POLIT:446 National Security Intelligence (3 Credits)**

The aim of this course is to familiarize students with the politics and policy of national security intelligence in the US. (Formerly 3700:446)

**POLIT:447 Counterterrorism (3 Credits)**

The course introduces students to the federal national security agencies, polices, politics, and methods of containing and defeating terrorism abroad and within the United States. (Formerly 3700:447)

**POLIT:448 Intelligence Analysis (3 Credits)**

This course is intended to for students who seek a career in the field of government or private sector intelligence or who just have an interest in how intelligence analysis is done. (Formerly 3700:448)

**POLIT:450 Administering Prisons, Probation, and Parole (3 Credits)**

Prerequisite: POLIT 100. Analysis of the administrative, electoral, and community conflicts central to understanding, resolving, and preventing these conflicts in a correctional environment. (Formerly 3700:450)

**POLIT:461 The Supreme Court & Constitutional Law (3 Credits)**

Prerequisite: POLIT 100. Interpretation of the Constitution by the Supreme Court with emphasis on federal judicial, legislative and executive power; separation of powers; and federalism. (Formerly 3700:461)

**POLIT:462 The Supreme Court & Civil Liberties (3 Credits)**

Prerequisite: POLIT 100. Interpretation of the Constitution by the Supreme Court with emphasis on freedom of speech and press, freedom of religion, criminal rights and right to privacy. (Formerly 3700:462)

**POLIT:463 Human Rights in World Politics (3 Credits)**

An introduction to human rights from a comparative perspective; topics include: definition and development of human rights with attention paid to government interaction and wartime. (Formerly 3700:463)

**POLIT:470 Fundamentals of Political Strategy (3 Credits)**

Explore theoretical concepts, practical applications, roles, and best practices as it relates to political campaign management. Develop critical thinking skills to assess, analyze, act and communicate in situations throughout the election cycle, including message development and delivery, target audiences and voter contact and engagement. Consider real-life and rhetorical situations and hear from campaign professionals equipped to share first-hand perspectives on the operations and infrastructure of political campaigns. (Formerly 3700:470)

**POLIT:471 Fundamentals of Electoral Messaging (3 Credits)**

Explore theoretical concepts, practical applications, roles, and best practices as it relates to political campaign and electoral communication. Develop skills to plan, produce and execute strategic political messages including campaign addresses, press releases and media advisories, constituent, volunteer, and donor communications, and video releases while considering candidate and opposition research, fact sheets, time and budgetary constraints, polling and targeting data, and candidate preferences. (Formerly 3700:471)

**POLIT:472 Campaign Finance, Fundraising, and Budgeting (3 Credits)**

This course examines the most controversial aspect of applied politics: the role and influence of money. Topics include: the sources of political money, how it is raised and spent, the impact of money on the political process, the rules that govern political finance, and proposals for campaign finance reform. (Formerly 3700:472)

**POLIT:473 Voter Contact & Elections (3 Credits)**

Theoretical and practical approaches to communication in all types of campaigns. (Formerly 3700:473)

**POLIT:474 Political Opinion, Behavior & Electoral Politics (3 Credits)**

Prerequisite: POLIT 100 or POLIT 301. Advanced analysis of psychological, cultural, and group processes of opinion formation and change. Attention given to the effect of opinion change on electoral outcomes. (Formerly 3700:474)

**POLIT:475 American Interest Groups (3 Credits)**

Prerequisite: Completion of six or more political science credits. Reading and research on the development, structure and function of interest groups in the United States. (Formerly 3700:475)

**POLIT:476 American Political Parties (3 Credits)**

Prerequisites: Completion of six or more political science credits. Reading and research on the development, structure and function of parties in the United States. (Formerly 3700:476)

**POLIT:477 Government Relations and Lobbying (3 Credits)**

This course examines government relations, lobbying, and advocacy through participating in hands-on applied projects, meeting with elected officials and government relations professionals, and preparing students for the wide range of career options available to government relations professionals. (Formerly 3700:477)

**POLIT:478 Fundamentals of the Digital Campaign (3 Credits)**

This course will examine the evolution of digital campaigning, explore the pillars of effective digital strategy, and analyze the role digital strategy plays from communications to fundraising to field and everything in between. It will look at the rise of digital platforms, strengths and weaknesses of them, how to best leverage them in a well-rounded digital program, along with security and disinformation tactics to navigate. Students will learn how to effectively research, craft, deploy, and execute an effective digital plan that can serve as the connective tissue of any winning campaign. (Formerly 3700:478)

**POLIT:480 Policy Problems in Political Science (3 Credits)**

Intensive study of selected problems in public policy. (Formerly 3700:480)

**POLIT:481 The Challenges of Police Work (3 Credits)**

Prerequisite: POLIT 100. Analysis of the neighborhood, bureaucratic, electoral, and operational conflicts central to police work, with a focus on efforts and obstacles to improving police work. (Formerly 3700:481)

**POLIT:482 Criminal Justice Topic: Current Issues (3 Credits)**

(May be repeated for a maximum of six credits) Prerequisite: POLIT 100. Critical analysis of current issues relating to political science and criminal justice. No more than three credits can be applied to the major. (Formerly 3700:482)

**POLIT:483 Constitutional Problems in Criminal Justice (3 Credits)**

Prerequisite: POLIT 100. Analyzes Supreme Court policy-making regarding problems of criminal justice, including search and seizure, self-incrimination, right to counsel, jury selection, and post-appeal prisoner rights. (Formerly 3700:483)

**POLIT:492 Selected Topics in Political Science (3 Credits)**

Topics of substantial current importance or specialized topics within political science (May be repeated for a total of 6 credits). (Formerly 3700:492)

**POLIT:497 Senior Honors Project in Political Science (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: senior standing in Honors Program and permission. Open only to a political science major in Honors Program. Independent study leading to completion of senior honors thesis or other original work. (Formerly 3700:497)

# Polymer Engineering (PLYE)

**PLYE:101 Tools for Polymer Science and Polymer Engineering (2 Credits)**

This is an introductory course for Polymer Science and Polymer Engineering (PSPE) undergraduate major. Students will learn the use of spreadsheet generating software for data analysis and graphing and MATLAB to perform mathematical computation. Engineering drawing and graphics using SOLIDWORKS software and elements of engineering ethics will be covered in this course. (Formerly 9841:101)

**PLYE:321 Polymer Fluid Mechanics (3 Credits)**

Prerequisites: CHEE 321, senior standing, and full admission to an engineering major in the College of Engineering and Polymer Science. This undergraduate course introduces the rheological properties and flow characteristics of polymer fluid systems. It covers non-Newtonian viscosity of polymer melts and solutions, viscoelasticity of polymer melts and solids, measurement methods, and interpretation of rheological properties. (Formerly 9841:321)

**PLYE:324 Quantitative Polymer Analysis (3 Credits)**

Prerequisites: MATH 223, MATH 335, and full admission to an engineering major in the College of Engineering and Polymer Science. This is an undergraduate course on quantitative analysis problems in polymer engineering. This course will allow the students to learn and use necessary analytical methods in designing and optimizing processes in the field of the polymer. The solution to the linear and nonlinear first and higher-order differential equations are provided by analytical methods. Students will be exposed to various concepts in linear algebra and will use dimensional analysis tools, such as the Buckingham theorem to identify key parameters that govern the physics of the problem. Furthermore, different techniques, such as separation of variables, similarity transformation, and Fourier transform, to solve partial differential equations will be covered. (Formerly 9841:324)

**PLYE:330 Polymer Thermodynamics (3 Credits)**

Prerequisites: MATH 223 and full admission to an engineering major in the College of Engineering and Polymer Science. This undergraduate course provides an introduction to thermodynamics including the fundamental laws, equations of state, phase equilibria, binary blends, and their corresponding phase diagrams. Polymeric materials are emphasized in the implementation of thermodynamics. (Formerly 9841:330)

**PLYE:333 Polymer Thermodynamics Laboratory (2 Credits)**

Prerequisite: Full admission to an engineering major in the College of Engineering and Polymer Science. Corequisite: PLYE 330. Laboratory course providing hands-on experiments in polymer thermodynamics. (Formerly 9841:333)

**PLYE:422 Polymer Processing (3 Credits)**

Prerequisite: Full admission to an engineering major in the College of Engineering and Polymer Science. Pre/Corequisite: CHEE 321 or MECE 310. Polymer processing technology. Basic studies of flow in extrusion, molding, and other processing methods. (Formerly 9841:422)

**PLYE:423 Injection Molding and Mold Design (3 Credits)**

Prerequisites: PLYE 321, PLYE 422, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This course presents an in-depth analysis of injection molding processes for manufacturing of an array of polymer-based articles used in consumer, automotive, and aerospace industries. The knowledge garnered in PLYE 321 Polymer Fluid Mechanics and PLYE 422 Polymer Processing will form the basis for elaborating the influence of polymer melt flow in the mold, heat transfer out of the mold, polymer chain orientation, and polymer chain crystallization on the quality of injection molded products and their properties. (Formerly 9841:423)



**PLYE:424 Additive Manufacturing with Polymers (3 Credits)**

Prerequisites: PLYE 321, PLYE 422, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This course presents the essence of additive manufacturing technology of polymers to keep senior undergraduate students abreast on the paradigm shift in manufacturing of products that vary widely in dimensions, e.g., from a few millimeters to almost a meter with minimal wastes. Cases of additive manufacturing with thermoplastic and thermosetting polymers are discussed. Product designs, machines, and materials selection are covered. (Formerly 9841:424)

**PLYE:425 Introduction to Blending & Compounding Polymers (3 Credits)**

Prerequisites: CHEE 321 or MECE 310 or permission. Nature of polymer blends and compounds and their applications. Preparation and technology using batch and continuous mixers, mixing mechanisms. (Formerly 9841:425)

**PLYE:427 Mold Design (3 Credits)**

Prerequisites: CHEE 321 or MECE 310 or permission. Molding methods to manufacture polymeric products. Machinery, materials, molds, equipment, computer-aided design. (Formerly 9841:427)

**PLYE:450 Engineering Properties of Polymers (3 Credits)**

Prerequisites: CHEE 408 or CIVE 202 or PSPE 301. Mechanical behavior of solid polymers including elastic and plastic deformation, viscoelasticity, fatigue and failure. (Formerly 9841:450)

**PLYE:451 Polymer Engineering Laboratory (3 Credits)**

Prerequisites: PLYE 321, PLYE 422, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This course teaches students how to conduct laboratory experiments on rheological characterization of polymer melts, rubber and plastics extrusion, extrudate swell, injection and compression molding, 3-D printing, and impact and tensile testing. (Formerly 9841:451)

**PLYE:496 Senior Design Project I (3 Credits)**

Prerequisites: PLYE 324, PLYE 330, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. Corequisite: PLYE 422. This is a design course in which the students will be actively involved in implementing design principles to synthesize new materials, to evaluate the performance of polymer materials, to design a processing scheme, or manufacture polymer products. The students will acquire skills in identification and ranking of factors, identification of materials systems, development of design of experiments, and evaluation of factors. The learning outcomes will be documented in detailed project reports. (Formerly 9841:496)

**PLYE:497 Honors Project (3 Credits)**

Prerequisites: Senior standing in the Honors Program and full admission to an engineering major in the College of Engineering and Polymer Science. This is a design course in which the students will be actively involved in implementing design principles to synthesize new materials, to evaluate the performance of polymer materials, to design a processing scheme, or manufacture polymer products. The students will acquire skills in identification and ranking of factors, identification of materials systems, development of design of experiments, and evaluation of factors. The learning outcomes will be documented in detailed project reports. (Formerly 9841:497)

**PLYE:498 Research Problems in Polymer Engineering (1-9 Credits)**

Prerequisite: Permission of Department Chair. Faculty-supervised undergraduate research problems in polymer engineering culminating in a written report. (Formerly 9841:498)

**PLYE:499 Senior Design Project II (3 Credits)**

Prerequisites: PLYE 321, PLYE 496, PLYS 405, senior standing and full admission to an engineering major in the College of Engineering and Polymer Science. This is a capstone course in which the students demonstrate mastery of the learning outcomes of this undergraduate degree program by completing challenging projects that have societal value. (Formerly 9841:499)

**Gen Ed:** - Capstone

## Polymer Science (PLYS)

**PLYS:265 Organic Polymer Chemistry Laboratory (2 Credits)**

Prerequisites: CHEM 153 and CHEM 152. Pre/Corequisite: CHEM 263. This undergraduate course provides an introduction to the lab techniques essential to organic chemistry through the context of polymer science. Techniques including extraction, chromatography, crystallization, and structure analysis are covered. (Formerly 9871:265)

**PLYS:313 Physics of Living Systems (3 Credits)**

Introduction to the interdisciplinary study of biological systems through the lens of the physical sciences. Learn how discovery-driven research between biology and physics leads to biomimetic advances and applications. (Formerly 9871:313)

**PLYS:340 Polymer Characterization Fundamentals (3 Credits)**

Prerequisites: PSPE 201 and PLYE 330. Pre/Corequisite: PLYS 404. This undergraduate course provides an understanding of the most common methods of characterization of polymer molecular structure, solid morphology, and physical properties. (Formerly 9871:340)

**PLYS:350 Sustainable Polymers (3 Credits)**

Pre/Corequisite: CHEM 263. This undergraduate course introduces students to sustainable plastic technologies, challenges, and the principals of the circular economy. Students will be able to understand the how different kinds of plastics are recovered, sorted, and recycled (or not). Topics covered include polymer recycling, composting, bio-based plastics, and life cycle analysis. (Formerly 9871:350)

**Gen Ed:** - Complex Issues Facing Society

**PLYS:401 Introduction to Elastomers (3 Credits)**

Prerequisites: CHEM 314 (or equivalent) or permission. An introduction to the science and technology of elastomeric materials and gels, including hydrogels. Lecture and laboratory. (Formerly 9871:401)

**PLYS:402 Introduction to Plastics (3 Credits)**

Prerequisite: CHEM 314 (or equivalent) or permission. An introduction to the science and technology of plastic materials. Lecture and laboratory. (Formerly 9871:402)

**PLYS:403 Polymer Chemistry (3 Credits)**

Prerequisites: CHEM 151, CHEM 153, and CHEM 263, or permission. Corequisite: PLYE 330. This undergraduate course provides the fundamental bases for understanding and comprehending the basic principles associated with the synthesis of polymers using a number of traditional and contemporary polymerization techniques with an emphasis on the mechanisms, kinetics, stereochemistry and resulting properties of the polymers. Students are expected to have a strong foundation in mathematics, physics and chemistry. (Formerly 9871:403)

**PLYS:404 Polymer Physics (3 Credits)**

Prerequisites: MATH 222 and PHYS 291. Advanced overview of polymer physics including scaling theories, chain dynamics, rubber elasticity, glassy polymers and crystallization. (Formerly 9871:404)

**PLYS:405 Polymer Science Laboratory (3 Credits)**

Prerequisites: CHEE 408 or PSPE 301 or PLYS 403 or permission. Laboratory course with experiments on the synthesis and characterization of polymers. (Formerly 9871:405)

**PLYS:407 Polymer Science (4 Credits)**

Prerequisite: CHEM 314 or PHYS 301 or permission. Principles of polymerization processes and relationships between molecular structures and physical behavior of polymers. Molecular weight distributions of macromolecules discussed and methods of determining molecular weights utilized. (Formerly 9871:407)

**PLYS:460 Polymeric Biomaterials (3 Credits)**

Prerequisites: PLYS 403 and junior or greater standing. Pre/Corequisites: PLYS 340 and PLYS 404. This course will teach students the fundamentals of polymeric biomaterials. The course will cover the synthesis, characterization, processing and applications of polymeric biomaterials in medicine. (Formerly 9871:460)

**PLYS:497 Honors Project in Polymer Science (1-3 Credits)**

Prerequisites: Sophomore, junior, or senior standing in Honors College and permission of honors preceptor in the home department. Independent research leading to completion of honors thesis under guidance of project adviser. May be repeated for a total of 10 credits. (Formerly 9871:497)

**PLYS:499 Research Problems in Polymer Science (1-9 Credits)**

Prerequisite: Permission. Faculty-supervised undergraduate research problems in polymer science, culminating in a written report. (Formerly 9871:499)

## Polymer Science and Polymer Engineering (PSPE)

**PSPE:100 Introduction to Polymers (3 Credits)**

Polymers are ubiquitous in modern society. They are in everything from everyday products (tires, paint, and milk jugs) to specialty items (bullet proof vests, lithium batteries, and graphite shaft golf clubs) to the human body (DNA and proteins). This undergraduate course introduces students to unique properties of polymers starting from their early history and discovery to modern day efforts in advanced materials, recycling and sustainability. (Formerly 9821:100)

**PSPE:201 Introduction to Polymer Science (3 Credits)**

Prerequisites: CHEM 151 and MATH 221. Introduction to the field of polymer science including molecular weight distributions, polymerization, chain statistics, polymer mixtures, rubber elasticity, polymer glasses, semi-crystalline polymers and viscoelasticity. (Formerly 9821:201)

**PSPE:202 Introduction to Polymer Engineering (3 Credits)**

Prerequisites: MATH 222 and PHYS 291. Introduction to the field of polymer engineering including classification of polymer materials, mechanical properties, fundamentals of polymer melt flow, polymer processing operations and compounding. (Formerly 9821:202)

**PSPE:281 Polymer Science for Engineers (2 Credits)**

Prerequisites: CHEM 151 and CHEM 152. Chemical bonds and structure of organic molecules, polymer chain structure, amorphous and crystalline morphology and structural characterization, polymerization and copolymerization, experimental demonstrations, typical solid-state and flow properties. (Formerly 9821:281)

**PSPE:301 Polymer Materials Science and Engineering (3 Credits)**

Corequisites: CHEM 313 or PHYS 340 or MECE 300 or permission. Materials science and engineering of polymers. Topics covered are the phase behavior and morphology of polymer solutions and blends, glassy polymers, polymer crystallization, materials characterization and multi-component polymer materials. (Formerly 9821:301)

**PSPE:310 Impacts of Polymers on Modern Life (3 Credits)**

Prerequisite: High school chemistry of equivalent. Qualitative introduction to plastics and polymers, intended for non-science majors. Course explores the history and use of polymers in commercial products including food, cosmetics, and medicine. The course will also explore the socioeconomic trade-offs in the use of polymers, where quality of life, food safety, lifesaving technologies are weighed against environmental and health impacts. (Formerly 9821:310)

**Gen Ed:** - Complex Issues Facing Society

**PSPE:381 Polymer Morphology for Engineers (3 Credits)**

Prerequisites: PSPE 281, CHEM 151, and PHYS 292. Fundamental understanding of solid structure, crystallography and morphology, processed polymers, co-polymers and their blends. (Formerly 9821:381)

**PSPE:411 Special Topics in Polymer Science and Polymer Engineering (3 Credits)**

Prerequisite: Permission of instructor. Special topics in polymer science and polymer engineering is an elective course focused on advancing students' knowledge in specialized topics in polymers. (Formerly 9821:411)

## Primary Inclusive (EDPI)

**EDPI:100 Orientation to Early Childhood Specialist (0 Credits)**

Corequisite: EDFN 200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development. (Formerly 5200:100)

**EDPI:200 Pre-Kindergarten Participation I (1 Credit)**

Prerequisite: CHFD 265, CHFD 245. Planned field experience in a pre-kindergarten infant/toddler classroom where students work with children age birth to 3 years both individually and in small groups. (Formerly 5200:200)

**EDPI:215 The Child, the Family, and the School (3 Credits)**

Prerequisites: EDFN 220, EDIS 225. The purpose of this course is to learn about why we create reciprocal working relationships with parents, and methods of creating these types of relationships. (10 field/clinical hours). (Formerly 5200:215)

**EDPI:220 Visual Arts Culture in Early Childhood (1 Credit)**

Prerequisite: admission to Teacher Education Program. Art education concepts, structures, and knowledge base to provide curricular opportunities for education majors to develop as creative problem solvers in an elementary school setting. First offered Fall 1993. (Formerly 5200:220)

**EDPI:250 Developing Processes of Investigation (3 Credits)**

Prerequisites: EDFN 210, EDFN 211, and admission to Teacher Education Program. This course will enable students to identify and acquire those investigative and discovery processes and skills that are common in mathematics, science, and social studies. (Formerly 5200:250)

**EDPI:300 Pre-Kindergarten Participation II (1 Credit)**

Prerequisites: EDPI 200, EDIS 450 and admission to Teacher Education Program. Planned field experience in pre-kindergarten early intervention program where student works in both small and large group settings and with individual children. (Formerly 5200:300)

**EDPI:319 Integrated Expressive Arts in Primary Grades (3 Credits)**

Prerequisites: CHFD 265, [MUSIC 201 or ART 210 or THEA 301], and admission to teacher education program. This course focuses on creative expression and play as primary activities to support the physical, intellectual, social, emotional and aesthetic development of children from birth through fifth grade. Theory and practice of play, child study, environmental planning, creativity and arts-based expression are foundational in this course. Students learn how to teach with the arts, within and across the academic content curriculum. (Formerly 5200:319)

**EDPI:320 Visual Arts Application in the Elementary School (3 Credits)**

Prerequisite: EDPI 220. Exploration of materials, methods, processes and visual techniques relating two and three-dimensional art experiences for the teacher of elementary children. (Formerly 5200:320)

**EDPI:321 Instructional Techniques: Modern Languages K-8 (3 Credits)**

Prerequisite: admission to the LBJFF School of Education. Focus on theories of language acquisition, models of instruction suited to teaching foreign languages and cultures in the elementary school (K-8), and strategies that promote appropriate levels of language proficiency and competency for young learners. (Formerly 5200:321)

**EDPI:325 Early Childhood Inclusive Practicum (3 Credits)**

Prerequisite: EDCI 240. Corequisite: EDCI 241. Prerequisite or Corequisite: EDCI 308. This field-based course emphasizes developmental domains of preschool children. Candidates design appropriate activities for culturally and linguistically diverse population of typically and atypically developing children. (Formerly 5200:325)

**EDPI:330 Building Understanding in Early Childhood Settings (3 Credits)**

Prerequisite: EDCI 240. Corequisite: EDCI 241 and EDIS 448. Prerequisite or corequisite: EDCI 308. This course prepares teachers to work in inclusive programs, able to meet the needs of children; exceptional, cultural and linguistic diverse, and typically. (Formerly 5200:453)

**EDPI:331 Kindergarten Methods & Material (4 Credits)**

Prerequisites: 5200:330 and CHFD 265. Scope and sequence of kindergarten curricula, with emphasis on developmentally appropriate methods and materials. This course is not part of the new teacher licensure program. (Formerly 5200:331)

**EDPI:333 Science for Primary Teachers (3 Credits)**

Prerequisite: Admission to teacher education program. Teachers of children from Pre-K through Grade 5 must be well versed in the essential science content knowledge and they should demonstrate the understanding of central concepts, academic language, and the structure of science content areas needed to provide appropriate environments that support integrated and authentic learning for ALL children. Well prepared candidates use their knowledge, appropriate Ohio New Learning Science standards, and other resources to design, implement, and evaluate meaningful, challenging standards-based curriculum for each child. (Formerly 5200:333)

**EDPI:334 Teaching Art in the Elementary School (3 Credits)**

Prerequisite: Admission to Teacher Education Program, Art K-12. Visual arts in elementary schools. Art education concepts with studio orientation including history of art education, developmental stages, curriculum and organization, methods, evaluation and research, and practical participation. (Formerly 5200:334)

**EDPI:338 Social Studies for Primary Teachers (3 Credits)**

Prerequisite: Admission to the School of Education. This course equips primary grade teachers with content knowledge, skills, and dispositions necessary to teach grades Pk-5 students to be informed and active citizens in classrooms, their community, country, and world. Students will learn critical content related to the guidelines of the Ohio Department of Education and the National Council for the Social Studies standards in social studies education. They will make decisions about what to teach (standards and themes), how to teach (strategies), and which materials best serve the needs of their students (resources). (Formerly 5200:338)

**EDPI:340 Developmental Writing and Digital Literacies in Inclusive Early (3 Credits)**

Prerequisite: EDCI 240. Prerequisite or corequisite: EDCI 241, EDCI 308, and EDIS 448. This course focuses on theoretically grounded developmental writing and communication using digital literacy in the information age specifically for children age 3 to third grade. (Formerly 5200:340)

**EDPI:342 Teaching Math to Young Children (3 Credits)**

Prerequisites: MATH 140, MATH 240. Prerequisite or corequisite: EDCI 370. Trends in mathematics instruction in early childhood/middle level classrooms. Procedures for the development of mathematics concepts and skills. (Formerly 5200:342)

**EDPI:352 Teaching Mathematics in Inclusive Primary Settings (3 Credits)**

Prerequisite: EDCI 308. To examine and know the standards-based mathematics curriculum and the instruction appropriate for inclusive primary setting. (10 hours of Field Work) (Formerly 5200:352)

**EDPI:395 Field Experience (1-3 Credits)**

Prerequisites: Permission of advisor and department head. Independent field work in area selected by student's adviser, based on student's needs. (Formerly 5200:395)

**EDPI:420 Integrated Primary Curriculum (4 Credits)**

Prerequisite or corequisite: EDCI 370. Course models an inquiry-based format that integrates math, science, social studies, and technology standards where students learn how to create, implement, manage, and evaluate student-centered learning environments. (25 hours field and 35 clinical hours). (Formerly 5200:420)

**EDPI:425 Advanced Integrated Primary Curriculum (4 Credits)**

Prerequisites: EDCI 420 and admission to teacher education program. This course further explores an inquiry-based format that integrates math, science, social studies, and technology standards by having the students implement, manage, and evaluate their own and their students' learning. (25 field and 35 clinical hours). (Formerly 5200:425)

**EDPI:454 Inquiry Learning in Primary Inclusive Settings (3 Credits)**

Prerequisites: EDCI 241 and EDCI 308. Corequisite: EDIS 450. Pre/ Corequisites: EDPI 333 and EDPI 338. Anchored in the authentic work of teacher and students, this field-based capstone methods class utilizes action research strategies in primary inclusive settings. By using inquiry -based methods that focus on reflective teaching and student learning, pre-service teachers learn to analyze and resolve their own teaching /learning challenges. They learn how to ask focusing questions, define terms, collect relevant data, analyze findings and communicate process that informs their professional practice. 35 field hours. (Formerly 5200:454)

**EDPI:480 Special Topics: Elementary Education (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5200:480)

**EDPI:490 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:490)

**EDPI:491 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:491)

**EDPI:492 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:492)

**EDPI:493 Workshop: Elementary Education (1-3 Credits)**

Elective workshop for elementary education major who would pursue further refinement of teaching skills. Emphasizes demonstrations of teaching techniques and development of suitable teaching devices. (Formerly 5200:493)

**EDPI:495 Student Teaching (Pre K through K) (5 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: EDPI 498. Planned teaching experience in schools selected and supervised by Office of Field Experience. (Formerly 5200:495)

**EDPI:496 Student Teaching (Grades 1-3) (6 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Corequisite: EDPI 498. Planned teaching experience in schools selected and supervised by Office of Field Experience. (Formerly 5200:496)

**EDPI:497 Independent Study: Elementary Education (1-3 Credits)**

Prerequisites: permission of adviser and department head. Specific area of curriculum investigation pertinent to elementary education as determined by student's academic needs. (Formerly 5200:497)

**EDPI:498 Student Teaching Colloquium (1 Credit)**

Prepares students for the final phase of becoming decision makers. The colloquium will explore problems encountered in classrooms, initiate reflective practice and concepts of action research, and focus on preparation of unit outlines with emphasis on applied decision making. (Formerly 5200:498)

**EDPI:499 Student Teaching in Inclusive Early Childhood Settings (9 Credits)**

Prerequisite: Approval of the Student Teaching Committee, based upon approved application to student teaching, passing at least one of Ohio Assessments for Educators subject-specific tests. Corequisite: EDIS 470. Planned 16-week experience in schools selected and supervised by the Office of Field Experiences. 322 Clinical Hours. (Formerly 5200:499)

# Psychology (PSYC)

**PSYC:100 Introduction to Psychology (3 Credits)**

Introduction to scientific study of behavior, survey of physiological basis of behavior, sensation and perception, development, learning and cognition, personality, social interaction and other selected topics. (Formerly 3750:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**PSYC:105 Professional & Career Issues in Psychology (1 Credit)**

Corequisite: PSYC 100. An overview of the field of psychology including educational requirements, career opportunities and professional issues for students considering a psychology major. (Formerly 3750:105)

**PSYC:110 Quantitative Methods in Psychology (4 Credits)**

Pre/Corequisite: PSYC 100. Presentation of data, descriptive statistics, correlation, hypothesis testing and introduction to statistical methodologies in psychology, including computer applications. (Formerly 3750:110)

**PSYC:220 Introduction to Experimental Psychology (4 Credits)**

Prerequisites: PSYC 100 and PSYC 110. Lectures and laboratory experience in the scientific bases of psychology such as experimental design, methods and apparatus, collection and analysis of data and interpretation of results. (Formerly 3750:220)

**PSYC:230 Developmental Psychology (4 Credits)**

Prerequisite: PSYC 100. Determinants and nature of behavioral change from conception to death. (Formerly 3750:230)

**PSYC:250 Psychology of Diversity (4 Credits)**

Prerequisite: PSYC 100. Psychology of Diversity encompasses macro-level issues and micro-level experiences. To live effectively in the emerging global community, one must be able to understand the diversity among human beings and relate effectively to non-majority group members. Issues of diversity are not only individual and personal, but also collective and social. (Formerly 3750:250)

**Gen Ed:** - Domestic Diversity

**PSYC:320 Biopsychology (4 Credits)**

Prerequisite: PSYC 100. Relationship between behavior and its biological/physiological foundations including brain structure and function, sensation, behavior genetics, learning and memory, and other topics. (Formerly 3750:320)

**PSYC:330 Emotion Across the Lifespan (4 Credits)**

Prerequisites: PSYC 100 and PSYC 230. We read and discuss primary writings on theoretical and empirical research in emotional development in adulthood. Topics include emotion perception and emotion regulation. (Formerly 3750:330)

**PSYC:335 Dynamics of Personality (4 Credits)**

Prerequisite: PSYC 100. An overview of theory and research involving the development, maintenance and assessment of personality and individual differences. (Formerly 3750:335)

**PSYC:340 Social Psychology (4 Credits)**

Prerequisite: PSYC 100. The examination of an individual's response to social environment and social interaction processes. Social perception, attitude formation and change, affiliation and attraction, altruism, group processes and nonverbal behavior. (Formerly 3750:340)

**PSYC:345 Cognitive Processes (4 Credits)**

Prerequisite: PSYC 100. Survey of the basic phenomena, concepts and theories in the areas of human perception, learning, memory and cognition. (Formerly 3750:345)

**PSYC:380 Industrial/Organizational Psychology (4 Credits)**

Prerequisite: PSYC 100. Survey of the application of psychology to the workplace including an emphasis on organizational (e.g., motivation) and personnel issues (e.g., selection). (Formerly 3750:380)

**PSYC:400 Personality (4 Credits)**

Prerequisites: PSYC 100 and PSYC 335. Consideration of current conceptualizations of the normal personality with emphasis on methods of measurement, experimental findings and research techniques. (Formerly 3750:400)

**PSYC:405 Sensation & Perception (4 Credits)**

Prerequisite: PSYC 100. Reviews the basic psychological and neural components of sensation and perception involving visual, auditory, cutaneous, and chemical sensory systems. (Formerly 3750:405)

**PSYC:410 Psychological Tests & Measurements (4 Credits)**

Prerequisites: PSYC 100 and PSYC 110. Consideration of the nature, construction and use of tests and measurements in industry, government and education. Includes aptitude and achievement tests, rating scales, attitude and opinion analysis. (Formerly 3750:410)

**PSYC:415 Cognitive Neuroscience (4 Credits)**

Prerequisite: PSYC 100. A review of neuroimaging studies addressing contemporary themes in human behavior, including consciousness, learning and memory, neuropathology, and emotion. (Formerly 3750:415)

**PSYC:420 Abnormal Psychology (4 Credits)**

Prerequisite: PSYC 100. Survey of syndromes, etiology, diagnoses and treatments of major psychological conditions ranging from transient maladjustments to psychoses. (Formerly 3750:424)

**PSYC:424 Myths of Sexuality (4 Credits)**

Prerequisites: 45 credit hours, PSYC 100, and PSYC 250. The Myths of Sexuality is a brief introduction into the psychology of human sexuality, as well as a more critical exploration of the contemporary issues in sexuality today, including but not limited to gender identity, queer studies, and the psychology behind the sex industry. (Formerly 3750:424)

**PSYC:425 Psychology of Hate (4 Credits)**

Prerequisites: Junior or higher standing and PSYC 100. The primary objective of this course is to understand the psychology behind hate. Topics include racism, sexism, heterosexism, religious intolerance, classism and ageism. (Formerly 3750:425)

**Gen Ed:** - Complex Issues Facing Society

**PSYC:430 Psychological Disorders of Children (4 Credits)**

Prerequisites: PSYC 100 and PSYC 230. Survey of syndromes, etiologies and treatments of behavioral disorders in children from the standpoint of developmental psychology. Behavioral data and treatment approaches emphasized. (Formerly 3750:430)

**PSYC:435 Cross-Cultural Psychology (4 Credits)**

Prerequisites: PSYC 100. Influence of culture and ethnicity upon development of individual psychological processes including functioning, identity, social motives, sex roles and values. (Formerly 3750:435)

**Gen Ed:** - Domestic Diversity

**PSYC:440 Personnel Psychology & the Law (4 Credits)**

Prerequisite: PSYC 380 or MGMT 301. The implications of equal employment law on the practice of personnel psychology. (Formerly 3750:440)

**PSYC:441 Clinical & Counseling Psychology I (4 Credits)**

Prerequisites: PSYC 100 and PSYC 335. Overview of the fields of clinical and counseling psychology with a major focus on psychotherapeutic approaches, including cultural considerations, legal/ethical issues, and outcome research. (Formerly 3750:441)

**PSYC:442 Clinical & Counseling Psychology II (4 Credits)**

Prerequisite: PSYC 441. Overview of individual counseling and psychotherapy, group counseling, personality and ability testing, marriage and family counseling, hypnosis, sex therapy, psychopharmacology and related specialties. Specific topics in clinical and counseling practice including professional trends, ethics, various therapeutic and diagnostic procedures, and specialty areas. (Formerly 3750:442)

**PSYC:443 Human Resource Management (4 Credits)**

Prerequisites: PSYC 100 and PSYC 380. The application of psychological theory to the effective management of human resources in an organization, including recruitment, selection, training and retention of personnel. (Formerly 3750:443)

**PSYC:444 Organizational Theory (4 Credits)**

Prerequisites: PSYC 100 and PSYC 380. The application of psychological theory to macro-level processes in organizations including leadership, motivation, task performance, organizational theories and development. (Formerly 3750:444)

**PSYC:445 Psychology of Small Group Behavior (4 Credits)**

Prerequisite: PSYC 100. Intensive investigation of factors affecting behavior and performance in small groups including effects of personality, social structures, task, situational and social-cognitive variables. (Formerly 3750:445)

**PSYC:450 Cognitive Development (4 Credits)**

Prerequisites: PSYC 100 and PSYC 345. Theory and research on life-span changes in cognitive processes including concept formation/categorization, information processing and Piagetian assessment tasks. (Formerly 3750:450)

**PSYC:460 History of Psychology (3 Credits)**

Prerequisite: PSYC 100. Psychology in pre-scientific period and details of developmental or systematic viewpoints in 19th and 20th Centuries. (Formerly 3750:460)

**PSYC:474 Psychology of Women (4 Credits)**

Prerequisite: PSYC 100 or WMST 200. Reviews theory and research in the psychology of women and gender and encourages students to use these in their everyday lives. (Formerly 3750:474)

**Gen Ed:** - Domestic Diversity

**PSYC:475 Psychology of Adulthood & Aging (4 Credits)**

Prerequisites: PSYC 100 and PSYC 230. Psychological aspects of human development from adolescence to older adulthood including age-related changes in socialization, personality, intelligence, sensation, perception, learning, memory and clinical applications. (Formerly 3750:475)

**PSYC:480 Special Topics in Psychology (1-4 Credits)**

Prerequisites: PSYC 100 and junior or higher standing. Comprehensive survey of contemporary status of specialized topics and issues in psychology. Emphasis on original source materials, critical analysis and synthesis of empirical and theoretical aspects. (Formerly 3750:480)

**PSYC:488 Honors Project in Psychology (4 Credits)**

Prerequisites: Psychology major and departmental permission, and PSYC 100, PSYC 105, PSYC 110, PSYC 220, and [PSYC 320 or PSYC 335 or PSYC 340 or PSYC 345]. Selection of research topic, review of relevant literature, research design, and proposal. (Formerly 3750:488)

**PSYC:489 Honors Project in Psychology (4 Credits)**

Prerequisites: Psychology major and departmental permission, and PSYC 100, PSYC 105, PSYC 110, PSYC 220, and [PSYC 320 or PSYC 335 or PSYC 340 or PSYC 345]. Data collection, analysis, and preparation of the final research report in journal style. (Formerly 3750:489)

**PSYC:495 Field Experience in Psychology (1-4 Credits)**

(May be repeated to a maximum of 6 credits). Prerequisites: PSYC 100, PSYC 105, PSYC 110 and eight additional credits in psychology. On-site supervised individual placements in appropriate settings. The academic component of the experience will be under the supervisor of a selected faculty member. (Formerly 3750:495)

**PSYC:497 Independent Reading/Research in Psychology (1-3 Credits)**

(May be repeated to a maximum of 6 credits). Prerequisites: PSYC 100, PSYC 105, PSYC 110, PSYC 220 and four additional credits in psychology. Independent reading and/or research in an area of psychology under the supervision and evaluation of a selected faculty member. (Formerly 3750:497)

**PSYC:498 Honors Research in Psychology (1-3 Credits)**

Prerequisites: Psychology major and approval of honors advisor. Individual research with a faculty advisor leading to the completion of a research project satisfying departmental and university requirements. (Formerly 3750:498)

## Public Administration and Urban Studies (PAUS)

**PAUS:375 Intro to Public Sector Mgmt (3 Credits)**

Prerequisite: Sophomore or greater standing. Introduces the principles, structures and people in the public sector. Addresses responsibilities and management of public services by government and civic non-profit agencies. (Formerly 3980:375)

**PAUS:380 Budget Politics (3 Credits)**

Prerequisite: Sophomore or greater standing. Introduces the politics and history of public budgeting for federal, state and local governments. Considers legislative and executive practices and democratic aspects of budgeting. (Formerly 3980:380)

**PAUS:412 National Urban Policy (3 Credits)**

Prerequisite: Sophomore or greater standing. Examines major federal policies that relate to urban problems in regard to policy-making processes, implementation, and impact on local governments. (Formerly 3980:412)

**PAUS:416 Personnel Management in the Public Sector (3 Credits)**

Prerequisite: 42 credit hours or sophomore standing. Fundamental issues and principles of public sector personnel administration, including recruitment, selection, training, motivation, supervision, evaluation, labor relations and affirmative action. (Formerly 3980:416)

**PAUS:417 Leadership and Decision-Making (3 Credits)**

Prerequisite: 42 credit hours or sophomore standing. Examines the context of public sector management including relevant organizational theories, strategic management and planning for leading local government and non-profit organizations. (Formerly 3980:417)

**PAUS:418 Citizen Participation (3 Credits)**

Prerequisite: Sophomore or greater standing. This course considers the fundamental theory background, techniques and issues of citizen participation in urban management and policy making. (Formerly 3980:418)

**PAUS:419 Community Organizing (3 Credits)**

Prerequisite: 42 credit hours or sophomore or greater standing. The course examines the evolution and influence of neighborhood, community and "grass-roots" organizations on public policy-making in urban areas. (Formerly 3980:419)

**PAUS:426 Grantsmanship (3 Credits)**

Prerequisite: Sophomore or greater standing. Considers the process and techniques of the grant-seeking and awarding processes. Emphasizes public funding opportunities for local government and nonprofit agencies. (Formerly 3980:426)

**PAUS:427 Cultural Competence in the Public Sector (3 Credits)**

Prerequisite: 42 credit hours or sophomore standing. Considers how public and non-profit managers can effectively communicate and provide services to culturally diverse individuals. Addresses management issues related to social stratification system. (Formerly 3980:427)

**PAUS:443 Introduction to Public Policy (3 Credits)**

Prerequisite: Sophomore or greater standing. Considers how public managers need to understand models of public policy formulation. Covers major policy issues and the analysis of policy implementation and policy impacts. (Formerly 3980:443)

**PAUS:451 Introduction to City Management (3 Credits)**

Prerequisite: 42 credit hours or sophomore or greater standing. Examines the historic role of city management in professionalizing local government operations; examines current responsibilities and trends in the practice of city management and leadership. (Formerly 3980:451)

**PAUS:462 Fundraising and Resource Management (3 Credits)**

Prerequisites: PAUS 463 and sophomore or greater standing. Examines alternative methods of fundraising and unique resource management challenges and opportunities of non profit organizations. (Formerly 3980:462)

**PAUS:463 Non-profit Management (3 Credits)**

Prerequisite: Sophomore or greater standing. Examines fundamental principles of non-profit organizations. Considers unique concerns of their operation environment, resource development, leadership, and management processes and aspects of volunteerism. (Formerly 3980:463)

**PAUS:473 Computer Applications in Public Organizations (3 Credits)**

Prerequisite: Sophomore or greater standing. Introduces microcomputer applications used in public organizations and includes data bases, data entry, web pages, report writing, graphical presentation and spreadsheets. (Formerly 3980:473)

**PAUS:480 Special Topics in Public Management (3 Credits)**

Prerequisite: Sophomore or greater standing. Opportunity to study current issues and specialized topics in public management, non-profit management or public policy analysis. May be repeated with change in topic for a total of 9 credits. (Formerly 3980:480)

## Respiratory Therapy (RESP)

**RESP:100 Concepts in Respiratory Therapy (3 Credits)**

Prerequisites: MATH 152 and MATH 153. Introductory concepts regarding the practice and application of the theories employed in respiratory therapy, including career information, equipment (lecture/discussion) (Formerly 2790:100)

**RESP:210 Respiratory Therapy Procedures I (3 Credits)**

Prerequisites: [RESP 100, BAHA 120, and ANAT 206] or [BIOL 200 and BIOL 201]. Application of oxygen and aerosol therapy equipment. Lecture/laboratory. (Formerly 2790:210)

**RESP:215 Respiratory Therapy Pharmacology (3 Credits)**

Prerequisites: RESP 100, CHEM 110, and CHEM 111. Pharmacologic actions and effects of medications delivered by respiratory therapists, and routes of administration. (Formerly 2790:215)

**RESP:290 Special Topics: Respiratory Care (1-3 Credits)**

Prerequisite: Permission. Selected topics or subject areas of interest in respiratory therapy technology. (May be repeated for a maximum of three credits) (Formerly 2790:290)

**RESP:301 Cardiopulmonary Assessment Techniques (2 Credits)**

Prerequisite: ANAT 207 or [BIOL 202 and BIOL 203]. Overall patient assessment, with concentration on the cardiopulmonary systems. Overview of common illness and related clinical manifestations. Lecture/laboratory. (Formerly 2790:301)

**RESP:302 Cardiopulmonary Anatomy and Physiology (3 Credits)**

Prerequisites: [RESP 210 and ANAT 207] or [BIOL 202 and BIOL 203]. Corequisite: RESP 301. Study of normal anatomy and physiology of cardiopulmonary systems. (Formerly 2790:302)

**RESP:303 Cardiopulmonary Pathology (4 Credits)**

Prerequisites: RESP 301 and RESP 302. Discussion of diseases of the heart and lungs, and their relationship to the role of the respiratory therapist. (Formerly 2790:303)

**RESP:311 Respiratory Therapy Procedures II (3 Credits)**

Prerequisites: [RESP 210 and ANAT 207] or [BIOL 202 and BIOL 203]. Airway Care and Lung Inflation Techniques. Lecture/laboratory. (Formerly 2790:311)

**RESP:312 Diagnostics I (3 Credits)**

Prerequisite: RESP 210. Corequisites: RESP 301, RESP 302, and RESP 311. Bedside screening studies for the evaluation of cardiopulmonary diseases. Lecture/laboratory. (Formerly 2790:312)

**RESP:313 Diagnostics II (3 Credits)**

Prerequisites: RESP 311 and RESP 312. Corequisite: RESP 303. Laboratory diagnostic studies for the evaluation of cardiopulmonary diseases. Lecture/laboratory. (Formerly 2790:313)

**RESP:315 Advanced Pharmacology for Respiratory Therapy (3 Credits)**

Prerequisite: RESP 215. Pharmacologic actions and effects of Cardiopulmonary Medications. (Formerly 2790:315)

**RESP:320 Neonatal/Pediatrics for Respiratory Therapy I (3 Credits)**

Prerequisite: RESP 301. In depth coverage of neonatal & pediatric respiratory care concepts. Emphasis placed on anatomy and physiology, assessment, and therapeutics. (Formerly 2790:320)

**RESP:325 Mechanical Ventilation (4 Credits)**

Prerequisites: RESP 303, RESP 312, RESP 315, RESP 320, and RESP 341. Introduction to mechanical ventilation and equipment. Lecture/lab. (Formerly 2790:325)

**RESP:340 Application of Clinical Concepts (2 Credits)**

Prerequisite: RESP 210. Corequisite: RESP 301. Introduction to basic respiratory therapy in a hospital setting, and hands-on practice with respiratory therapy equipment, including CPR for the professional. Lecture/clinical. (Formerly 2790:340)

**RESP:341 RT Clinical Experience I (3 Credits)**

Prerequisites: RESP 215, RESP 311, and RESP 340. Application of clinical procedures in a hospital setting, with emphasis on basic therapeutic interventions. Clinical. 225 clinical hours. (Formerly 2790:341)

**RESP:342 RT Clinical Experience II (2 Credits)**

Prerequisites: RESP 315, RESP 325, and RESP 341. Application of clinical procedures in a hospital setting, with emphasis on mechanical ventilation techniques. 150 clinical hours. (Formerly 2790:342)

**RESP:413 Respiratory Therapy in Alternate Settings (3 Credits)**

Prerequisite: RESP 313. Pulmonary rehabilitation and home care, as well as care in alternate settings. Lecture/lab. (Formerly 2790:413)

**RESP:420 Neonatal/Pediatrics for Respiratory Therapy II (3 Credits)**

Prerequisite: RESP 320. Detailed study of airway management, pathophysiology and treatment modalities as they relate to neonatal/pediatrics. (Formerly 2790:420)

**RESP:421 Advanced Critical Care (3 Credits)**

Prerequisites: RESP 303, RESP 315, RESP 320, and RESP 340. This course will provide an in-depth overview of advanced mechanical ventilator modes, advanced mechanical ventilator management strategies, complex disease processes and disease management which includes critical care pharmacology. Advanced Cardiovascular Life Support (ACLS), including advanced ECG interpretation, and Pediatric Advanced Life Support (PALS) introductory concepts will also be discussed. (Formerly 2790:421)

**RESP:430 Problems in Respiratory Therapy (4 Credits)**

Prerequisites: RESP 313, RESP 420, and RESP 443. Capstone course, applies the concepts from clinical situations, using computer simulations and cases and evaluates research in Respiratory therapy. (Formerly 2790:430)

**RESP:443 RT Clinical Experience III (4 Credits)**

Prerequisite: RESP 342. Rotation to a variety of Health care facilities to practice specialty procedures in each institution. 300 clinical hours (Formerly 2790:443)

**RESP:444 RT Clinical Experience IV (4 Credits)**

Prerequisite: RESP 443. Rotation to a variety of health care facilities to practice specialty procedures from each institution. Clinical (total of 300 hours). (Formerly 2790:444)

## Risk Management and Insurance (RMI)

**RMI:414 Risk Management: Property and Casualty (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, [FIN 300 or FIN 301] with a grade of C- or better, or permission of instructor. Addresses tools for managing risk, legal concepts of insurance contracts, personal insurance and commercial property and casualty insurance policies as well as other risk issues. (Formerly 6400:414)

**RMI:415 Risk Management: Life and Health Insurance (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, and [FIN 300 or FIN 301] with a grade of C- or better. Concepts of life and health insurance and risk management are addressed. (Formerly 6400:415)

**RMI:418 Insurance Operations (3 Credits)**

Prerequisite: RMI 414 or RMI 415 or permission. This course provides a detailed examination of the composition, financial structure, and operation of the property-casualty insurance industry. (Formerly 6400:418)

**RMI:460 Risk and Insurance Analytics (3 Credits)**

Prerequisite: Admission to a major in a four-year degree granting college. Pre/Corequisites: RMI 414, RMI 415 and RMI 418. The primary objective of this course is to provide an introduction to risk and insurance analytics and the application of analysis techniques to insurance underwriting, fraud detection and risk management. Topics to be covered include: 1. An overview of the application of analytics to risk management and insurance 2. Basic Data Modeling Concepts 3. Traditional Analysis Techniques 4. Modern Analysis Techniques 5. Application to Underwriting 6. Application to Claims 7. Application to Risk Management (Formerly 6400:460)

**RMI:461 Enterprise Risk Management (3 Credits)**

Prerequisites: Admission to a major in a four-year degree granting college, RMI 414, RMI 415, and RMI 418. Explores risk issues at the firm level with emphasis upon identification and management of risk to enhance firm value. (Formerly 6400:461)

**RMI:494 Internship in Risk Management and Insurance (3 Credits)**

Prerequisite: Permission of designated faculty member. On the job experience with public or private sector organizations in the financial services field. Individual assignments are approved and supervised by the designated member of the faculty in the student's major field. Periodic reports and term papers required. (Formerly 6400:494)

## Sales (SALES)

**SALES:275 Professional Selling (3 Credits)**

Prerequisite: 25 credits or permission from instructor. Builds communication skills while learning about buyer needs, persuasion and social influence, prospecting, making sales presentations, persuading, overcoming sales resistance, closing sales and building relationships. (Formerly 6600:275)

**SALES:475 Business Negotiations (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college, 25 credits, and SALES 275. Examines business negotiation principles and practices, and builds skills in the process of negotiating business agreements within a global environment. (Formerly 6600:475)

**SALES:478 Advanced Professional Selling (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and SALES 275. Broadens students understanding of the sales process looking at complex sales and solutions selling. Intense lab work focusing on communication skills, asking the right questions to fully understand needs, helping client turn implicit needs into explicit needs, conducting B2B and complex negotiations, and understanding how to create win-win solutions. (Formerly 6600:478)

**SALES:480 Sales Management (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and [COMM 101 or MKTG 205]. Develops analytical and managerial skills through case studies and other learning activities relating to the organization, selection, training, motivation, and control of a domestic or global sales force. (Formerly 6600:480)

**SALES:487 Internship in Sales Management (3 Credits)**

Prerequisite: Permission of department chair. On-the-job experience with public or private sector organizations in the field of marketing. On-the-job learning objectives are established by the sponsoring organization and approved by the department chair. Field experiences are augmented by a weekly diary and a term paper, which are supervised and evaluated by the department chair. (Formerly 6600:487)

**SALES:493 Professional Insights: Sales Management (1 Credit)**

Prerequisites: Junior standing or higher and admission into a 4 year degree program. Sales Management is designed to link sales management majors' academic learning to professional practice. Guest speakers, recognized experts in their field, share important lessons in professional selling and sales management and challenge students to address key issues in their profession as preparation for an internship and career. (Formerly 6600:493)

## Secondary Education (EDSE)

**EDSE:100 Orientation to the AYA/P-12 Multi-Age Programs (0 Credits)**

Prerequisite: admission to the Teacher Education Program. Corequisite: EDFN 200. Orientation to the information and strategies necessary for a student to be successful in the program, including portfolio development. (Formerly 5300:100)

**EDSE:316 Methods in Teaching Art (3 Credits)**

Prerequisites: Completion of required course for art teachers and grade-point average of 2.50 in the field. Study of trends and procedures in teaching and supervision; relation of art to home, school and community; observation in selected schools required. (Formerly 5300:316)

**EDSE:317 Instructional Techniques: Modern Languages-Secondary (3 Credits)**

Focus on theories of language acquisition, models of instruction for teaching foreign languages/cultures and strategies that promote levels of proficiency/competency for adolescent learners. (Formerly 5300:317)

**EDSE:320 Introduction to Teaching in the Content Area (3 Credits)**

Prerequisite: EDCI 308. This course introduces secondary teacher candidates to trends, issues, and challenges as it relates specifically to curriculum and instruction in the content areas in secondary schools. (Formerly 5300:320)

**EDSE:325 Content Reading in Secondary Schools (3 Credits)**

Instructional principles and practices for helping secondary school youth and adults learn subject matter through application of reading and study skills. (Formerly 5300:325)

**EDSE:330 Teaching Adolescent/Middle Level Literature (3 Credits)**

Student develops skills for selection of literature that is well-suited for adolescent/middle level children. Student develops, uses, and experiences methods for teaching adolescent/middle level literature in the classroom. (30 clinical experience hours) (Formerly 5300:330)

**EDSE:335 Language Learning in Secondary Schools (3 Credits)**

Prerequisite: Admission to the Teacher Education program. Introduces English teachers to the issues of language learning and techniques required to teach language skills. (Formerly 5300:335)

**EDSE:395 Field Experience: Secondary Education (1-3 Credits)**

Supervised work with youngsters, individually and in groups in school and/or community settings. (Formerly 5300:395)

**EDSE:420 Instructional Techniques in Secondary Education (3 Credits)**

Prerequisite: EDCI 308. Corequisite: EDSE 421. Open to student who has completed certification requirements in all content fields. Techniques of planning, instruction and evaluation in various secondary teaching fields. (Formerly 5300:420)

**EDSE:421 Instructional Techniques in Secondary Education - II (3 Credits)**

Prerequisites: EDSE 420 and EDSE 430. Corequisite: EDSE 431. Continuation of teaching strategy and assessment implementation based on research and theory. (Formerly 5300:421)

**EDSE:430 Clinical Teaching I (3 Credits)**

Prerequisite: EDCI 308. Corequisite: EDSE 420. Observe and apply education methodologies and theories in a school/classroom field-based environment. (50 clinical hours) (Formerly 5500:430)

**EDSE:431 Clinical Teaching II (3 Credits)**

Prerequisites: EDSE 420 and EDSE 430. Corequisite: EDSE 421. Course following Clinical Teaching I - Apply education methodologies and theories in a classroom environment in a full-time school environment. (640 clinical hours) (Formerly 5500:431)



**EDSE:480 Special Topics: Secondary Education (1-4 Credits)**

(May be repeated with a change in topic) Prerequisite: Permission of instructor. Group study of special topics of critical, contemporary concern in professional education. (Formerly 5300:480)

**EDSE:490 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:490)

**EDSE:491 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:491)

**EDSE:492 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:492)

**EDSE:493 Workshop: Secondary Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. (Formerly 5300:493)

**EDSE:494 Educational Institutes: Secondary Education (1-4 Credits)**

Special courses designed as in-service upgrading programs, frequently provided with the support of national foundations. (Formerly 5300:494)

**EDSE:495 Student Teaching: Secondary Education (6-11 Credits)**

Prerequisites: Approval of the Student Teaching Committee, considered based upon approved application to student teaching, and passing state licensure exam(s). Corequisite: EDSE 496. Planned teaching experience in schools selected and supervised by the Office of Field Experiences. (Formerly 5300:495)

**EDSE:496 Student Teaching Colloquium in Secondary Education (1 Credit)**

Concurrent with Student Teaching; emphasis on applied decision making, group problem solving, and commitment to life-long learning. (Formerly 5300:496)

**EDSE:497 Independent Study (1-3 Credits)**

Specific area of curriculum investigation pertinent to secondary education as determined by student's academic needs. (Formerly 5300:497)

## Social Work - School of (SOWK)

**SOWK:131 Introduction to Developmental Disabilities (2 Credits)**

This course provides an overview of developmental disabilities. Content includes definitions, classifications, causes, and characteristics of disabilities; legislation/regulations; service delivery models; and prevention. (Formerly 2260:131)

**SOWK:150 Introduction to Gerontological Services (3 Credits)**

Basic orientation to gerontology and role of community service technician in service delivery to aged. Topics include social, biological, economical, and psychological aspects of aging; national and state legislation; services and service provider. (Formerly 2260:150)

**SOWK:230 Human Relations (3 Credits)**

Examination of principles and methods which aid in understanding the individual's response to society and the relationship between society and individuals. (Formerly 7750:230)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science

**SOWK:231 Habilitation Programming (2 Credits)**

Prerequisite: SOWK 131. This course examines components of individualized plans, implementation of such plans, and legal issues. Content includes types of habilitation programming and the role of self-determination. (Formerly 2260:231)

**SOWK:233 Behavior Support (2 Credits)**

Prerequisite: SOWK 131. This course examines the components of behavior support. Course content includes various types of behavior support programs and techniques. (Formerly 2260:233)

**SOWK:240 Substance Use and Abuse (3 Credits)**

Introduction to pharmacology of drugs of misuse; physiological factors of alcohol/drug-using behavior; effect of psychoactive drugs on the brain; intervention and treatment measures. (Formerly 7750:240)

**SOWK:244 Death & Dying (3 Credits)**

Examination of a wide range of topics related to death and dying. Emphasis is placed on understanding and coping with death and dying. (Formerly 7750:244)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**SOWK:255 Effective Workplace Relationships (3 Credits)**

This course focuses on self-evaluation and development of skills for successful interaction with clients/inmates, peers, supervisors, and colleagues in other public service systems. (Formerly 2260:255)

**SOWK:260 Introduction to Addiction (3 Credits)**

An overview of the continuum of use, abuse and dependency; theories of addiction; the impact of addiction on society; and the implications for professional practice. (Formerly 7750:260)

**SOWK:262 Basic Helping Skills (4 Credits)**

Teaches micro skills through the use of didactic presentation, role play and videotaping; develops ability to give and receive feedback about effectiveness of helping others. (Formerly 2260:262)

**SOWK:265 Women & Addiction (3 Credits)**

Exploration of the social, psychological, physical and family aspects of addiction in women. (Formerly 7750:265)

**SOWK:268 Co-Occurring Disorders (3 Credits)**

Key concepts and evidence-based practices in the provision of services to people suffering from substance abuse as well as mental illness and behavioral disorders. (Formerly 7750:268)

**SOWK:269 Criminal Justice & Addiction (3 Credits)**

An introduction to the problems that exist with the treatment of the alcohol/drug offenders and issues relating to their transition back to the community. (Formerly 7750:269)

**SOWK:270 Diversity and Social Work (3 Credits)**

Introductory course explores issues related to poverty and minority issues as they relate to at-risk populations. (Formerly 7750:270)

**Gen Ed:** - Domestic Diversity

**SOWK:271 Behavioral Addictions (3 Credits)**

Introduction to understanding human behavior and physiological responses to compulsive behaviors other than dependencies on psychoactive chemicals. Several behavioral addictions will be explored. (Formerly 7750:271)

**SOWK:275 Introduction to Social Work Practice (3 Credits)**

Introduces students to concepts, settings, and vulnerable populations related to the field of social work. Emphasis placed on purposes, values, ethics, knowledge, and skills that characterize the professional social worker. Provides an overview of theoretical and practical knowledge about the social work profession needed for entry levels of practice in social work. (Formerly 7750:275)

**SOWK:276 Introduction to Social Welfare (3 Credits)**

Survey of field of social welfare; place of social work profession within human services institutions of United States. Introduction of basic concepts relating social welfare institutions and social work to society. (Formerly 7750:276)

**SOWK:277 Case Management in Community Services (3 Credits)**

Case by case study of Social Service delivery in six primary areas of Human Services. Emphasis on case management skills, documentation and ethics. (Formerly 2260:277)

**SOWK:278 Techniques of Community Work (4 Credits)**

Prerequisite: ENGL 111. For those intending to work in community organizations in the United States and for others desiring an understanding of technical community service roles. Covers such topics as ethics, liability issues, communication and problem solving skills, values clarification, stress management systems theory, and assertive behavior. (Formerly 2260:278)

**SOWK:279 Technical Experience in Community & Social Services (5 Credits)**

Prerequisite: SOWK 278 and permission. Individual placement in selected community and social service agencies for educationally supervised experience in community and social services technician position. Does not substitute for SOWK 421 or 7750:495. (Formerly 2260:279)

**SOWK:286 Addiction Services Internship (2 Credits)**

Prerequisite: Permission of instructor. Integrates counselor assistant experience with fundamental concepts and skills from academic studies. Students are required to complete 200 hours of supervised field experience. (Formerly 7750:286)

**SOWK:297 Independent Study: Community Services (1-3 Credits)**

Prerequisite: Permission. Selected topics and special areas of study under the supervision and evaluation of a selected faculty member with whom specific arrangements have been made. (Formerly 2260:297)

**SOWK:300 The Resilient Child (3 Credits)**

Corequisite: SOWK 301. Course content includes typical and atypical development in children affected with health related issues in a variety of clinical settings. (Formerly 7750:300)

**SOWK:301 The Resilient Child Lab (1 Credit)**

Corequisite: SOWK 300. Course content applies typical and atypical development in children affected with health related issues in a lab setting. (Formerly 7750:301)

**SOWK:302 Assessment, Play and Therapeutic Interventions with Children (3 Credits)**

An overview of the theoretical framework of play and assessment of children's developmental and emotional needs. Therapeutic interventions and activities explored. (Formerly 7750:302)

**SOWK:303 National Health and Safety Performance Standards in Child Care (1 Credit)**

Course content includes safety and performance standards for health care providers working with children in a clinical setting. (Formerly 7750:303)

**SOWK:344 Death & Dying (3 Credits)**

Examination of a wide range of topics related to death and dying. Emphasis is placed on understanding and coping with death and dying. (Formerly 7750:344)

**Gen Ed:** - Social Science; - Domestic Diversity

**SOWK:345 Death and Dying for Health Care Professionals (3 Credits)**

Examination of loss, death, and dying in health care professions. Theory-driven course emphasizing development of practical skills to address death-related issues and experiences. (Formerly 7750:345)

**SOWK:349 Integrated Human Behavior and Health (3 Credits)**

Examination of the reciprocal nature of physical and mental health factors related to disease course/progression. Emphasis on application of theory-driven conceptualization and interventions. (Formerly 7750:349)

**SOWK:401 Social Work Practice I (3 Credits)**

Prerequisite: Social Work major. Corequisite: SOWK 405. Basic concepts and methods of Generalist social work practice, with an emphasis on understanding and working with individuals. (Formerly 7750:401)

**SOWK:402 Social Work Practice II (3 Credits)**

Prerequisite: SOWK 401 and SOWK 405 or permission of instructor. Concepts and methods of social work practice particularly relating to understanding and working with groups in various settings in our society. (Formerly 7750:402)

**SOWK:403 Social Work Practice III (3 Credits)**

Prerequisite: SOWK 401 and SOWK 405 or permission of instructor. Development of understanding and practice methods for utilization of community organization and social planning as social work process in assessing problems and developing program to meet needs. (Formerly 7750:403)

**SOWK:404 Social Work Practice IV (3 Credits)**

Prerequisite: SOWK 401 and SOWK 405. Professional social work practice with families in social services; the dynamics of family systems, assessment of family function and dysfunction, professional helping processes. (Formerly 7750:404)

**SOWK:405 Practice I Skills Lab (3 Credits)**

Prerequisites: SOWK 270, SOWK 276, SOWK 427, BIOL 103, POLIT 100, PSYC 100, SOCIO 100 and [ECON 100 or ECON 200]. Corequisite: SOWK 401. Prepares students for beginning generalist social work practice and proves a context to apply and evaluate generic knowledge base, values, ethics, and skills common to practice with client systems. (Formerly 7750:405)

**SOWK:411 Women's Issues in Social Work Practice (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Social work practice, knowledge and skill, social welfare institutions and social policy in relation to women's issues and concerns in the United States. (Formerly 7750:411)

**SOWK:421 Field Experience Seminar I (2 Credits)**

Prerequisites: SOWK 401 and permission of the instructor. Corequisite: SOWK 493. The first of two consecutive courses that assists students in making the transition from classroom learning to experiential learning in the field practicum. (Formerly 7750:421)

**SOWK:422 Field Experience Seminar II (2 Credits)**

Prerequisites: SOWK 421 and SOWK 493; Corequisite: SOWK 494. The second of two consecutive courses, this course assists students in integrating, synthesizing, and applying classroom learning to field experiences and assignments. (Formerly 7750:422)

**SOWK:425 Social Work Ethics (3 Credits)**

Prerequisite: Social Work major, permission of instructor. Social Worker's code of ethics as applied to practices, problems and issues in social work. (Formerly 7750:425)

**SOWK:427 Human Behavior & Social Environment I (3 Credits)**

Social work perspective on human development across the life cycle. Human diversity approach consistent with the needs of social work students preparing for practice. (Formerly 7750:427)

**SOWK:430 Human Behavior & Social Environment II (3 Credits)**

Prerequisites: Social Work major and SOWK 427. Examination of larger social systems including families, groups, neighborhoods, and organizations. Focuses on the unique systemic characteristics of each system and its development. (Formerly 7750:430)

**SOWK:442 Social Work Research (3 Credits)**

Prerequisite: Acceptance into the social work major. Overview of scientific inquiries in the research process as it applies to social work. Emphasis is placed on various social worker roles in relation to research. The focus will be on research concepts including contents on the evaluation of practice outcomes and data analyses. (Formerly 7750:442)

**SOWK:444 Global Health Disparities (3 Credits)**

Prerequisite: Admission to the College of Health and Human Sciences. This course provides a fundamental understanding of the purpose, function and importance of understanding global health disparities. The course examines the disparities in health condition and health care among minority populations for several specific diseases. The most significant current health care problems facing populations in the United States and the world will be identified. These conditions are significant health concerns in the majority population as well as minority population. It brings to light the behavioral and cultural characteristics of the global populations that contribute to the disproportionate presence of the disease in that population, and the disparity in treatment available. Furthermore, the course will introduce the students to view globally and act locally regarding to specific health problem of interest to the student or that demonstrate local needs, thus preparing students to potential paths of future program design. (Formerly 7750:444)

**SOWK:445 Social Policy Analysis for Social Workers (3 Credits)**

Prerequisite: Social Work major, permission of instructor. Description, analysis and construction of social policy in social services; to understanding forces and processes which establish or change social policies, to predict consequences of social policies and to establish goals for social policy development; integrated into effective social work methodology. (Formerly 7750:445)

**SOWK:450 Social Needs & Services: Aging (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Application of knowledge and principles of professional social work practice to understanding, development and provision of social services to meet needs of aging and later mature individuals, families and communities and institutions serving them and their relatives. (Formerly 7750:450)

**SOWK:451 Social Work in Child Welfare (3 Credits)**

Prerequisite: SOWK 401. In-depth exploration of structure and functioning of social services designed to help children, and of practice of social work in child-welfare settings. Consideration of supportive, supplementary and substitutive services. (Formerly 7750:451)

**SOWK:452 Social Work in Mental Health (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Issues, organization, development and methodologies of current professional social work practice in mental-health settings. (Formerly 7750:452)

**SOWK:454 Social Work in Juvenile Justice (3 Credits)**

Prerequisite: SOWK 401. The theory and practice of social work in the juvenile justice systems of the United States. Traditional procedures and recent developments, prevention, diversion and community outreach, legal concerns, case management, institutional functioning. (Formerly 7750:454)

**SOWK:455 Social Work Practice with African American Families (3 Credits)**

Prerequisite: SOWK 401 or permission of instructor. Contemporary problems facing African American families; male-female relationships, single parent households, African American teens and elderly, public policy, theoretical models, explaining development of the African American family. (Formerly 7750:455)

**SOWK:456 Social Work in Health Services (3 Credits)**

Prerequisite: SOWK 401. Policies, programs and practice in health-care settings: short-term, intermediate and long-term hospitals, out-patient services, emergency services, clinics, visiting nurse services, nursing homes, pediatric services, self-help organizations. (Formerly 7750:456)

**SOWK:459 Social Work with People with Developmental Disabilities (3 Credits)**

Prerequisite: Permission of instructor. Application of social work principles in the provision of social services to meet the needs of the mentally retarded and developmentally disabled and their families. (Formerly 7750:459)

**SOWK:467 Addiction Screening, Assessment and Treatment Planning (3 Credits)**

Prerequisite: SOWK 260. Overview of screening, diagnosis and assessment procedures in the addiction field, including review of the most commonly used testing instruments. Implication for treatment planning is explored. (Formerly 7750:467)

**SOWK:468 Addiction Prevention, Treatment and Recovery (3 Credits)**

Evidence-based practices in addiction prevention, treatment, and recovery management. Treatment approaches include, but are not limited to, motivational interviewing, contingency management, cognitive behavioral therapy, and family approaches. (Formerly 7750:468)

**SOWK:469 Group and Relationship Counseling in Addictions (3 Credits)**

Models and dynamics of groups and families struggling with substance use disorders. Emphasis on strategies and techniques to improve functioning and interpersonal relationships in the maintenance of recovery. (Formerly 7750:469)

**SOWK:470 Law for Social Workers (3 Credits)**

Prerequisite: SOWK 401. Basic terminology, theories, principles, organization and procedures of law will be explored along with the relationships between social work and law and comparisons of the theoretical bases of the two professions. (Formerly 7750:470)

**SOWK:471 Crisis Intervention (3 Credits)**

This elective course focuses on knowledge/skills required by social workers dealing with people in crisis. Impact of crises on the human personality will be discussed. (Formerly 7750:471)

**SOWK:472 Child Welfare II (3 Credits)**

This course is the second in a series of two child welfare courses. Child Welfare II, addresses the developmental and permanence needs of children in the welfare system. (Formerly 7750:472)

**SOWK:473 Social Work with Adolescence (3 Credits)**

This course provides students with an in-depth knowledge of adolescent development and an understanding of how the biological, psychological, social, cultural, and spiritual aspects of an adolescent impact their overall functioning and quality of life issues. (Formerly 7750:473)

**SOWK:475 Addiction & Social Work Practice (3 Credits)**

Prerequisite: SOWK 401. Provides students with the essential knowledge and skill for successful social work practice with people involved in substance abuse. (Formerly 7750:475)

**SOWK:478 Family Financial Management (3 Credits)**

This course designed to help students gain an appreciation and working knowledge of the individual/family as a complex and ever-changing financial unit. We will look at the social and cultural practices that contribute to our view of money and financial management. We will also examine the American social class system and families' status, savings, financial security patterns of decision making and a range of financial practice behaviors, the profiles of families through the family development cycle. We will also explore how families prepare for the unforeseen, and work toward the resolution of family financial problems. Case studies, exercises, quizzes, and on-line discussions will aid us in this process. (Formerly 7750:478)

**SOWK:480 Special Topics: Social Work & Social Welfare (1-3 Credits)**

Prerequisite: Permission of instructor. Analysis of current social work and social welfare theory and policy, settings, innovative interventions, and trends in delivery systems in relation to selected areas of concern. Topics and credits variable. (Formerly 7750:480)

**SOWK:493 Field Experience: Social Agency I (3 Credits)**

Prerequisites: SOWK 401, SOWK 402, SOWK 427, and permission of instructor. Corequisite: SOWK 421. First of two consecutive courses of supervised internship in a social service setting. Facilitates acquisition of generalist practice skills. Student must receive permission to take the course with the Field Coordinator during early part of semester preceding enrollment. For senior social work majors. (Formerly 7750:493)

**SOWK:494 Field Experience: Social Agency II (3 Credits)**

Prerequisites: SOWK 493, SOWK 421 and permission of instructor; corequisite: SOWK 422. Second of two consecutive courses of supervised internship in a social service setting. Facilitates the continued acquisition of generalist practice skills. For senior social work majors only. (Formerly 7750:494)

**SOWK:497 Individual Investigation in Social Work (1-3 Credits)**

Prerequisites: Permission and prearrangement with instructor. Individual readings, research or projects in area of interest in social welfare theory or institutional operations or in social work practice under guidance of social work faculty member. Preparation of report paper appropriate to nature of topic. For social work major. (Formerly 7750:497)

**SOWK:499 Senior Honors Project in Social Work (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Senior standing in Honors Program and approval of honors preceptor in department. Open only to social work major enrolled in Honors Program. Independent study leading to completion of senior honors thesis or other original work resulting in writing of research paper in proper scholarly form, supervised by student's honors project adviser within the department. (Formerly 7750:499)

## Sociology (SOCIO)

**SOCIO:100 Introduction to Sociology (3 Credits)**

Basic terminology, concepts, and approaches in sociology, including an introduction to the analysis of social groups. Students will learn how to apply sociological concepts to the understanding of social justice, the social determinants of health and well-being, and socio-behavioral research among others. (Formerly 3850:100)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Domestic Diversity

**SOCIO:200 Social Justice (3 Credits)**

This course explores sociological approaches to the pursuit and achievement of social justice. Our focus will be on identifying social injustice from a socio-structural perspective and understanding the processes and approaches associated with achieving social justice. We will focus on organized efforts in such areas as criminal justice reform, gender equity, and environmental activism. (Formerly 3850:200)

**SOCIO:243 Contemporary Global Issues (3 Credits)**

Multidisciplinary approach to global social problems. Examines cultural, political, and economic issues in developed and developing nations. Emphasizes technology's impact and global interrelationships. (Formerly 3850:243)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Social Science; - Global Diversity

**SOCIO:301 Social Research Design (3 Credits)**

Prerequisites: SOCIO 100 and 3 credits of Mathematics (MATH) or Statistics (STAT) courses. The basis of this course is learning to apply course material to improve thinking, problem-solving, and decisions in conducting research design and data gathering techniques. Required of all majors. (Formerly 3850:301)

**SOCIO:302 Data Analysis (3 Credits)**

Prerequisites: Completion of [POLIT 301 or SOCIO 301], and SOCIO 100, and 3 credits of Mathematics (MATH) or Statistics (STAT) courses. Essential objectives of this course are developing expression skills in writing and learning fundamental principles in statistics. Other key topics include quantitative techniques and application to sociological data. Required of all majors. (Formerly 3850:302)

**SOCIO:310 Social Problems (3 Credits)**

Prerequisite SOCIO 100 or permission. Study of selected contemporary problems in society; application of sociological theory and research to understand the social construction of and response to these problems. (Formerly 3850:310)

**SOCIO:315 Sociological Social Psychology (3 Credits)**

Prerequisite: SOCIO 100. The reciprocal influence of individuals and groups. How interpersonal processes produce and affect group structure. How groups affect the development and behavior of the social person. (Formerly 3850:315)

**SOCIO:320 Social Inequalities (3 Credits)**

Prerequisite: SOCIO 100 or permission. This course covers local, regional, national, and global dimensions of social inequalities to better understand our social world. Structural and interactionist approaches to relations of power in society frame the course. Students will learn tools to better understand and address inequality. Required of all majors. (Formerly 3850:320)

**Gen Ed:** - Complex Issues Facing Society

**SOCIO:321 Population, Environment, and Health (3 Credits)**

Prerequisite: SOCIO 100 or permission. An introduction to world and national population trends and characteristics and their relationship to health and the environment. Topics include social demographic causes and consequences of fertility, mortality, morbidity, and migration. Other topics include population change, the nexus between population and the environment, climate change, and also public health. (Formerly 3850:321)

**Gen Ed:** - Global Diversity

**SOCIO:324 Social Movements (3 Credits)**

Prerequisite: SOCIO 100 or permission. Social movements as distinguished from other forms of collective behavior; analysis of social situations which produce social movements; focus on development of social movements and their role in social change. Lecture. (Formerly 3850:324)

**SOCIO:325 Sociology of Women in Global Society (3 Credits)**

Prerequisite: SOCIO 100 or permission. Examination of research and theories pertaining to women's status in global society, including economic conditions, the relationship between structure and experience, and global/local linkages. Includes a broader discussion of facets of gender(s) and sexualities in global perspective. (Formerly 3850:325)

**SOCIO:330 Criminology (3 Credits)**

Prerequisite: SOCIO 100 or permission. Major focus on forms, trends, and patterns of crime; the interrelationships and analysis of criminal justice systems and society; the study of social and behavioral causes of crime and consequences of crime for individuals and communities. (Formerly 3850:330)

**SOCIO:336 Sociology of Work & Occupations (3 Credits)**

Prerequisite: SOCIO 100 or permission. Survey of theory and empirical research in areas such as the structure of occupations and professions, occupational attainment, work force characteristics, work values and orientations, the nature of work. Lecture. (Formerly 3850:336)

**SOCIO:340 The Family (3 Credits)**

Prerequisite: SOCIO 100 or permission. Analysis of family as a social system; historical, comparative and contemporary sociological approaches examined in relation to family structure and functions. Lecture. (Formerly 3850:340)

**SOCIO:341 Political Sociology (3 Credits)**

Prerequisite: SOCIO 100 or permission. Survey of theory and empirical research dealing with relationship between political phenomena and the larger network of social processes in human societies. Lecture. (Formerly 3850:341)

**SOCIO:342 Sociology of Health & Illness (3 Credits)**

Prerequisite: SOCIO 100 or permission. General survey of sociological perspectives, concepts and research on health, illness and health-care delivery systems. Lecture. (Formerly 3850:342)

**Gen Ed:** - Complex Issues Facing Society

**SOCIO:343 Sociology of Aging (3 Credits)**

Prerequisite: SOCIO 100 or permission. The Sociology of Aging course enables students to understand the impacts of social power, social structure, and social interaction on aging individuals. It considers complexities built into institutions that impact current issues in aging. It explains the interaction among social, biological and psychological aging and approaches to aging. Basic terms and theories used in social gerontology are defined. (Formerly 3850:343)

**SOCIO:350 Drugs in Society (3 Credits)**

Prerequisite: SOCIO 100 or permission. Examination of drugs and their use from a sociological perspective. Emphasis on social correlates of drug use, societal responses, health, crime, treatment, and prevention strategies. (Formerly 3850:350)

**SOCIO:360 Social Effects of Crime in the Media (3 Credits)**

Prerequisite: SOCIO 100. Sociological examination of the consequences of images of crime in the media. Focus on issues of stereotypes and discrimination by race, sex and class. (Formerly 3850:360)

**SOCIO:365 Special Topics in Sociology (1-3 Credits)**

(May be repeated) Prerequisite: Permission. Special topics of interest to sociology major and non-major not covered in regular course offerings. (Formerly 3850:365)

**SOCIO:397 Sociological Readings & Research (1-3 Credits)**

Prerequisite: Permission. Individual study of problem area of specific interest to individual student under guidance of department member. Preparation of a research paper. (Formerly 3850:397)

**SOCIO:401 Advanced Topics in Research Methods (3-6 Credits)**

Prerequisites: POLIT 301 or SOCIO 301. Special topics of interest in advanced methods not covered in regular course offerings. (Formerly 3850:401)

**SOCIO:410 Social Structures & Personality (3 Credits)**

Prerequisite: SOCIO 100 or permission. Interrelationships between position in society, personality characteristics. Personality treated as both result and determinant of social structure and process. Lecture. (Formerly 3850:410)

**SOCIO:411 Social Interaction (3 Credits)**

Prerequisite: SOCIO 100 or permission. Intensive study of advanced theory and research in social psychology, particularly how social interaction and self-conception affect one another. Lecture. (Formerly 3850:411)

**SOCIO:412 Socialization: Child to Adult (3 Credits)**

Prerequisite: SOCIO 100 or permission. Theoretical and empirical analysis of process by which infant, child, adolescent and adult learn social and cultural requirements necessary to function in new roles, changing roles and society in general. (Formerly 3850:412)

**SOCIO:415 Women in Prison (3 Credits)**

Prerequisite: SOCIO 100 or permission of instructor. In depth examination of women's experiences in prison. Includes processes involved in the movement into prison, experiences while in institutions, and transitioning out of prison. (Formerly 3850:415)

**SOCIO:416 Women and Crime (3 Credits)**

Prerequisite: SOCIO 100 or permission. An overview of women's experiences with crime, including women as offenders, victims, and workers in the criminal justice system. (Formerly 3850:416)

**SOCIO:421 Race & Ethnic Relations (3 Credits)**

Prerequisite: SOCIO 100 or permission. Analysis of structure and dynamics of race and ethnic relations from a variety of perspectives emphasizing both historical and contemporary issues. Lecture. (Formerly 3850:421)

**SOCIO:425 Sociology of Urban Life (3 Credits)**

Prerequisite: SOCIO 100 or permission. Emergence and development of urban society. Examination of urban social structure from neighborhood to metropolis, the problems and prospects. Emphasis on various life styles of urban subcultures. Lecture/discussion. (Formerly 3850:425)

**SOCIO:428 Victim in Society (3 Credits)**

Prerequisite: SOCIO 100 or permission. Study of the nature, causes, and consequences of victimization with special focus on crime victimization. (Formerly 3850:428)

**SOCIO:430 Juvenile Delinquency (3 Credits)**

Prerequisite: SOCIO 100 or permission. Analysis of social structure and process from which delinquency develops. Emphasis on current and past research. Lecture/discussion. (Formerly 3850:430)

**SOCIO:431 Theories and Practices of Correctional Systems (3 Credits)**

Prerequisite: SOCIO 100 or permission. Study of theories, past and current research, and practices of institutional and community corrections systems. The history and philosophies/goals of corrections will be reviewed in relation to changing social contexts and how these shifts have impacted the operation of correctional systems. (Formerly 3850:431)

**SOCIO:433 Sociology of Deviant Behavior (3 Credits)**

Prerequisites: SOCIO 100 or permission. Survey of theories of deviant behavior and relevant empirical research. Special emphasis is given to interaction processes and social control. (Formerly 3850:433)

**Gen Ed:** - Complex Issues Facing Society

**SOCIO:435 Sociology of Love (3 Credits)**

Prerequisite: SOCIO 100 or permission. Study of the relation of love to the social order. Coverage includes diverse types, such as romantic, familial, religious, and altruistic love. (Formerly 3850:435)

**SOCIO:441 Sociology of Law (3 Credits)**

Prerequisite: SOCIO 100 or permission of department. Social origins and consequences of law and legal processes. Emphasis on uses of law, social change and aspects of legal professions. (Formerly 3850:441)

**SOCIO:447 Sociology of Gender, Sex, and Sexualities (3 Credits)**

Prerequisite: SOCIO 100 or permission. The social, cultural, and historical construction of gender and sexuality; gender and sexuality as mechanisms of stratification; and the intersection of gender, race, class, and nation. (Formerly 3850:447)

**SOCIO:450 Sociology of Mental Illness (3 Credits)**

Prerequisite: SOCIO 100 or permission. The social history of the mental hospital, theories and epidemiology of mental illness, community-based treatment models, the organization of mental health services, the role of personal social networks and mutual support groups. (Formerly 3850:450)

**SOCIO:455 Family Violence (3 Credits)**

Prerequisite: SOCIO 100. Family violence with a focus on child abuse, courtship violence, spouse/partner abuse, and elder abuse. Theories, methodologies, and strategies to end family violence are explored. (Formerly 3850:455)

**SOCIO:460 Sociological Theory (3 Credits)**

Prerequisite: SOCIO 100 or permission. An overview and examination of theoretical issues in sociology through the study of both classical and contemporary theoretical work. (Formerly 3850:460)

**SOCIO:470 Research Methods for the Social Sciences Pro-seminar (3 Credits)**

Prerequisite: Completion of required coursework for the Research Methods Certificate Program or Permission of Instructor. Application of qualitative and/or quantitative research methods and analysis, and preparation of a scholarly research paper for presentation and/or publication. Seminar. (Formerly 3850:470)

**SOCIO:490 Organizations, Community, and Social Action (3 Credits)**

Survey of organizational and community issues that affect the achievement of shared goals. Emphasis on the evidence-based approaches at both the organizational and community levels. (Formerly 3850:490)

**SOCIO:495 Field Internship (2-4 Credits)**

Prerequisites: Permission of a faculty supervisor and a minimum of 64 hours of undergraduate coursework of which 12 hours must be in sociology. Placement in community organization for supervised experience related to degree requirements. Student must submit an application to the intern coordinator during semester prior to enrollment. (Formerly 3850:495)

**SOCIO:496 Senior Honors Project (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: Enrollment in Honors College, Senior standing, and major in sociology. Thesis or original creative work appropriate to student's area of interest. Requirements and evaluation of project determined by departmental honors preceptor and student's honors project adviser. (Formerly 3850:496)

## Spanish (SPAN)

**SPAN:101 Beginning Spanish I (4 Credits)**

Sequential. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3580:101)

**SPAN:102 Beginning Spanish II (4 Credits)**

Sequential. Prerequisite: SPAN 101. Acquisition of basic reading, speaking, writing and listening comprehension skills, with emphasis on development of self-expression in everyday situations, through culturally authentic media and texts. (Formerly 3580:102)

**SPAN:103 Intensive First Year Spanish-Hybrid (4 Credits)**

Prerequisites: Permission of Department of Modern Languages. First year elementary Spanish in hybrid format for those who have some experience learning Spanish. (Formerly 3580:103)

**SPAN:104 Beginning Medical Spanish I (3 Credits)**

Development of basic Spanish medical oral expression by studying health terminology and practicing conversational skills. Development of an awareness of Hispanic cultures. Conducted in Spanish. (Formerly 3580:104)

**SPAN:105 Beginning Medical Spanish II (3 Credits)**

Prerequisites: Completion of SPAN 104 with a C+ or better. Development of basic Spanish medical written expression by studying health terminology and practicing writing. Development of an awareness of Hispanic cultures. Conducted in Spanish. (Formerly 3580:105)

**SPAN:106 Beginning Medical Spanish III (3 Credits)**

Prerequisites: Completion of SPAN 105 with a C+ or better. Development of Spanish medical written expression by studying health terminology and practicing writing. Development of an awareness of Hispanic cultures. Conducted in Spanish. (Formerly 3580:106)

**SPAN:111 Intensive Beginning Spanish I (4 Credits)**

Sequential. Prerequisite: Minimum of two years of prior study of Spanish at the secondary level or the equivalent, or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers the entire first year in one semester. (Formerly 3580:111)

**SPAN:112 Intensive Beginning Spanish II (4 Credits)**

Sequential. Prerequisite: SPAN 101 with a grade of B or better, or SPAN 111 with a grade of C or better, or a minimum of three years of prior study of Spanish at the secondary level and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Acquisition of basic reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers the entire first year in one semester. (Formerly 3580:112)

**SPAN:201 Intermediate Spanish I (3 Credits)**

Sequential. Prerequisite: SPAN 102 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3580:201)

**SPAN:202 Intermediate Spanish II (3 Credits)**

Sequential. Prerequisite: SPAN 201 or placement test. Continuing acquisition of competence in reading, writing, speaking, and listening comprehension through use of culturally authentic materials, with emphasis on developing accuracy and self-expression in a wide range of situations. (Formerly 3580:202)

**SPAN:210 Spanish Culture Through Film (3 Credits)**

Prerequisites: ENGL 111, ENGL 112 and sophomore or greater standing or equivalent. This course has been designed to provide students with a wide-ranging introduction to Spanish culture and recent history. By analyzing Spanish cinema from the last half-century, with a particular emphasis on the last decade, along with selected critical texts, and various cultural artifacts on current issues in Spain, the course will explore such questions as women's roles in contemporary society, immigration and exile, globalization, and experiences of war and violence, among other themes. By the end of the semester, students will have acquired a deeper understanding and appreciation of Spain's culture, history, and cinema, as well as basic notions to write and speak critically about a film. (Formerly 3580:210)

**Gen Ed:** - Humanities; - Global Diversity

**SPAN:211 Intensive Intermediate Spanish I (3 Credits)**

Prerequisites: SPAN 102 with a grade of B or better, or SPAN 112 with a grade of C or better, or minimum of three years of prior study of Spanish at the secondary level or the equivalent and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Continuing acquisition of reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers entire year in one semester. (Formerly 3580:211)

**SPAN:212 Intensive Intermediate Spanish II (3 Credits)**

Prerequisites: SPAN 201 with a grade of B or better, or completion of SPAN 211 with a grade of C or better, or minimum of three years of prior study of Spanish at the secondary level or the equivalent and/or a satisfactory score on the UA Spanish Placement Examination, or permission of the instructor. Continuing acquisition of reading, speaking, writing, and listening comprehension skills, with emphasis on development of self-expression. Sequence covers entire second year in one semester. (Formerly 3580:212)

**SPAN:250 Hispanic Literature in Translation (3 Credits)**

(May not be taken for credit toward the Spanish major or minor.) Reading, discussion of novels, short stories of major Hispanic authors. Texts and discussion in English. (Formerly 3580:250)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Humanities

**SPAN:301 Spanish Conversation (3 Credits)**

Prerequisite: SPAN 202, or SPAN 212, or equivalent, or placement test. Development of oral expression, listening comprehension and conversational ability. May be repeated for a total of six credits. (Formerly 3580:301)

**SPAN:302 Spanish Composition (3 Credits)**

Prerequisite: SPAN 202, or SPAN 212, or equivalent, or placement test. Development of writing skills through intensive practice and study of written expression in Spanish. Conducted in Spanish. May be repeated for a total of six credits. (Formerly 3580:302)

**SPAN:303 Spanish Grammar (3 Credits)**

Prerequisite: SPAN 202, or SPAN 212, or equivalent, or placement test. Post-intermediate review and study of grammar and basic principles of grammatical analysis. Conducted in Spanish. (Formerly 3580:303)

**SPAN:305 Spanish for Business (3 Credits)**

Prerequisite: SPAN 202 or instructor permission. Study of business terminology as well as cultural factors affecting the conduct of business with Hispanic nations and populations. Conducted in Spanish. (Formerly 3580:351)

**SPAN:307 Spanish Conversation: Health Professions & First Responders (3 Credits)**

Prerequisite: SPAN 202. Students will gain intermediate to advanced level oral competency in Spanish in order to conduct interviews and communicate in Spanish with Spanish-speakers (Formerly 3580:307)

**SPAN:308 Spanish Composition: Health Professions & First Responders (3 Credits)**

Prerequisites: SPAN 202. Students will gain intermediate to advanced level written competency in Spanish, write and translate documents so to communicate with Spanish-speaking patients in the medical setting. (Formerly 3580:308)

**Gen Ed:** - Complex Issues Facing Society

**SPAN:311 Spanish/Spanish-American Cultural Experience (1-6 Credits)**

Student's residence and study in a Spanish-speaking country. Repeatable once with different content, 12 credits maximum. Only 9 credits may be applied to Spanish minor. (Formerly 3580:311)

**SPAN:322 Special Topics: Spanish (3 Credits)**

Prerequisite: SPAN 202. Development of specialized language and/or cultural skills for special purposes. Repeatable for up to 9 credits. (Formerly 3580:322)

**SPAN:330 Spanish Undergraduate Professional Internship (1-6 Credits)**

Prerequisites: Completion of SPAN 202 or equivalent with a minimum 3.0 GPA in Spanish and students will need to notify a faculty advisor in the Spanish section to seek permission and approval for the enrollment in the internship course the semester prior to the experience. Students will participate in cooperating local, regional, national and international professions of community organizations to apply their proficiency in Spanish in a real-world setting. (Formerly 3580:330)

**SPAN:340 Introduction to Spanish & Spanish-American Literature (3 Credits)**

Prerequisite: Two of the group SPAN 301, SPAN 302, and SPAN 303. Reading and discussion of Spanish and Spanish-American literature of all genres. Introduction to the fundamentals of literary criticism and literary movements. Conducted in Spanish. (Formerly 3580:340)

**SPAN:360 Hispanic Culture through Film (3 Credits)**

Prerequisite: Completion of two of the following courses: [SPAN 301 or SPAN 302 or SPAN 303]. An articulation and analysis of important themes in contemporary Hispanic culture presented through film. An introduction to film criticism. Conducted in Spanish. (Formerly 3580:360)

**Gen Ed:** - Global Diversity

**SPAN:401 Advanced Spanish Conversation (3 Credits)**

Prerequisites: SPAN 301 and [SPAN 302 or SPAN 303]. Development of speaking skills at a level beyond that achieved in SPAN 301. Conducted in Spanish. Repeatable for up to 6 credits. (Formerly 3580:401)

**SPAN:402 Advanced Spanish Composition (3 Credits)**

Prerequisite: SPAN 302 and [SPAN 301 or SPAN 303]. Development of writing skills at a level beyond that achieved in SPAN 302. Conducted in Spanish. Repeatable for up to 6 credits. (Formerly 3580:402)

**SPAN:403 Advanced Grammar (3 Credits)**

Prerequisites: SPAN 303 and SPAN 301 or SPAN 302. Advanced study of Spanish syntax and grammatical analysis. Conducted in Spanish. (Formerly 3580:403)

**SPAN:404 Introduction to Spanish Linguistics (4 Credits)**

Prerequisites: SPAN 401, SPAN 402, and SPAN 403. This course provides a detailed overview of the structure of Spanish and areas of inquiry within linguistics: phonetics, phonology, morphology, syntax, semantics and applied fields. (Formerly 3580:404)

**SPAN:405 Spanish Linguistics: Phonology (4 Credits)**

Prerequisite: SPAN 401, SPAN 402, and SPAN 403. Descriptive study of Spanish phonetics and morphology, comparison of Spanish and English sounds, historical aspects, regional accents and sociolinguistic variation. Conducted in Spanish. (Formerly 3580:405)

**SPAN:406 Spanish Linguistics: Syntax (4 Credits)**

Prerequisite: SPAN 401, SPAN 402, and SPAN 403. Descriptive study of Spanish syntax; introduction to theories of grammar; overview of Spanish semantics and pragmatics. Conducted in Spanish. (Formerly 3580:406)

**SPAN:407 Survey of Hispanic Literature: Spain (4 Credits)**

Prerequisites: SPAN 340 and two of the group [SPAN 401, SPAN 402, SPAN 403]. Study of the most representative works and literary movements in Spain from the Middle Ages to the present. Conducted in Spanish. (Formerly 3580:407)

**SPAN:408 Survey of Hispanic Literature: Spanish-America (4 Credits)**

Prerequisites: SPAN 340 and two of the group [SPAN 401, SPAN 402, SPAN 403]. Study of the most representative works and literary movements in Spanish-America from the Discovery to the present. Conducted in Spanish. (Formerly 3580:408)

**SPAN:409 Cultural Manifestations in Medieval & Renaissance Spain (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Comparative study of representative artistic and literary works of the Medieval and Renaissance periods. Conducted in Spanish. (Formerly 3580:409)

**SPAN:410 Spanish Applied Linguistics (4 Credits)**

Prerequisites: SPAN 401, SPAN 402, and SPAN 403. This course discusses current theories of second language acquisition and their implications for the learning of problematic Spanish structures. (Formerly 3580:410)

**SPAN:411 Spain During the Baroque Period (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. A comparative study of the different cultural manifestations during the 17th century in Spain. Conducted in Spanish. (Formerly 3580:411)

**SPAN:412 Cervantes: Don Quijote (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Reading and analysis of Don Quijote as the first modern novel in the historical context of Renaissance and Baroque esthetics. Conducted in Spanish. (Formerly 3580:412)

**SPAN:413 Don Juan Myth in Spanish Culture (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Study of the evolution of the Don Juan myth from its origins to its latest versions in the 20th century. (Formerly 3580:413)

**SPAN:414 Cultural Politics in the River Plate (4 Credits)**

Prerequisite: [SPAN 407 or SPAN 408] or permission of instructor. This course will examine the military dictatorships of the seventies and eighties in Argentina and Uruguay by looking at how these regimes affected culture. (Formerly 3580:414)

**SPAN:416 Representing Reality in 19th Century Spain (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. A comparative study of the major literary and artistic movements in Spain from Realism to Modernism. Conducted in Spanish. (Formerly 3580:416)

**SPAN:417 Spanish/Spanish American Study Abroad Experience (3-6 Credits)**

Credit for student's course work at an accredited university in Spain or Latin America. (Formerly 3580:417)

**SPAN:418 20th Century Spain: The Avant-Garde in Literature & Art (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. A comparative study of the major literary and artistic movements in Spain which illustrate the primary cultural changes of the century. Conducted in Spanish (Formerly 3580:418)

**SPAN:419 Spanish Civil War & its Cultural Impact (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Study the impact of the Civil War on Spanish culture. (Formerly 3580:419)

**SPAN:422 Special Topics in Specialized Language Skills, Culture, Literature (1-4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. (May be repeated) Development of specialized language skills or reading of significant works of literature or culture not studied in other courses. (Formerly 3580:422)

**SPAN:425 20th Century Spanish-American Novel (4 Credits)**

Prerequisite: [SPAN 407 or SPAN 408] or permission of instructor. Reading and discussion of representative contemporary Latin American novels. Conducted in Spanish. (Formerly 3580:425)

**SPAN:427 Latino Cultures in the USA (4 Credits)**

Prerequisite: [SPAN 407 or SPAN 408] or permission of instructor. Inquiry into the Latino experience of displacement and marginality through the analysis of cultural manifestations in the U.S.A. Conducted in Spanish. (Formerly 3580:427)

**SPAN:430 Women in 20th Century Hispanic Literature (4 Credits)**

Prerequisite: SPAN 407 or SPAN 408. Reading and analysis of selected works from the 20th Century that depict women in Hispanic countries. Methodologies of feminist criticism will be studied. Conducted in Spanish. (Formerly 3580:430)

**SPAN:431 Hispanic Culture: Spain (4 Credits)**

Prerequisite: Two of the group [SPAN 401, SPAN 402, SPAN 403]. Study of society, customs, history, art, music, etc. of Spain, from a Hispanic perspective. Conducted in Spanish. (Formerly 3580:431)



**SPAN:432 Hispanic Culture: Spanish America (4 Credits)**

Prerequisite: Two from the group [SPAN 401, SPAN 402, SPAN 403]. Overview and historical survey of Spanish American civilization and culture. Taken as 532, does not count toward the M.A. in Spanish. Conducted in Spanish. (Formerly 3580:432)

**SPAN:497 Individual Reading in Spanish (1-3 Credits)**

Prerequisite: SPAN 407 or SPAN 408 and departmental permission. (Formerly 3580:497)

## Special Educational Programs (EDSP)

**EDSP:492 Workshop in Reading (1-3 Credits)**

Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units. (Formerly 5800:492)

**EDSP:493 Workshop on Exceptional Children (1-3 Credits)**

Individual work under staff guidance on curriculum problems; utilization of community resources; planning of curriculum units. (Formerly 5800:493)

**EDSP:494 International School Study (3-6 Credits)**

On-the-scene study of education in foreign countries, usually by concentrating on the study of schools in one restricted geographical area. (Formerly 5800:494)

## Speech-Language Pathology and Audiology (SLPA)

**SLPA:101 American Sign Language I (3 Credits)**

Introduction to American Sign Language: vocabulary building, beginning development of fingerspelling skills, receptive/expressive conversational skills. (Formerly 7700:101)

**SLPA:102 American Sign Language II (3 Credits)**

Prerequisite: SLPA 101 or equivalent. Continued development of skills in American Sign Language: vocabulary building, further development of fingerspelling skills, receptive/expressive conversational skills. (Formerly 7700:102)

**SLPA:110 Introduction to Disorders of Communications (3 Credits)**

Overview of various types of speech disorders; their incidence, etiology and characteristics. Basic concepts and principles underlying speech pathology. (Formerly 7700:110)

**SLPA:201 American Sign Language III (3 Credits)**

Prerequisite: SLPA 102 or equivalent. Continued development of skills in American Sign Language: vocabulary building, fingerspelling skills, receptive/expressive conversational skills, and linguistic features of ASL. (Formerly 7700:201)

**SLPA:202 American Sign Language IV (3 Credits)**

Prerequisite: SLPA 201. Further fluency development of expressive/receptive communication, fingerspelling, and linguistic features of ASL. (Formerly 7700:202)

**SLPA:210 Introduction to Clinical Phonetics (4 Credits)**

Introduction to International Phonetic Alphabet. Transcription of normal speech. Overview of articulatory and acoustic phonetics. Introduction to distinctive features. (Formerly 7700:210)

**SLPA:215 Introduction to Hearing and Speech Science (4 Credits)**

Introductory course covering the human hearing system and acoustics of hearing as well as principles involved in the production, transmission, and reception of the speech signal. (Formerly 7700:215)

**SLPA:222 Survey of Deaf Culture in America (2 Credits)**

The deaf experience in America including historical, educational, legal, social, and occupational developments. (Formerly 7700:222)

**SLPA:230 Language Science & Acquisition (4 Credits)**

An introduction to language science and the study of the language acquisition process. The characteristics and explanations of language development will be presented. (Formerly 7700:230)

**SLPA:245 First Responders to the Deaf Community (4 Credits)**

Prerequisites: Completion of SLPA 201 with C or better. This course is required for the HSHS Manual Communication Certificate. It will emphasize ASL skills practical to first responders' needs. (Formerly 7700:245)

**SLPA:295 Direct Experiences in the Hospital (3 Credits)**

Prerequisite: Permission of advisor. Individual learning experiences for students with patients, their families and the hospital personnel in various hospital settings under the direction of hospital and University staff. (Formerly 7700:295)

**SLPA:321 Articulatory & Phonologic Disorders (4 Credits)**

Prerequisites: SLPA 110, SLPA 210, and admission into the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Study of disorders of articulation/phonology, including normal phonological developments, and assessment and remediation of phonological disorders. (Formerly 7700:321)

**SLPA:330 Language Disorders (4 Credits)**

Prerequisites: SLPA 230 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Etiology, identification, evaluation, intervention, remediation of symbolic, cognitive, interpersonal language disorders of children. Disorders viewed as correlates or sequelae of central nervous system dysfunction or emotional disturbance. (Formerly 7700:330)

**SLPA:335 Principles of Audiology (4 Credits)**

Prerequisites: SLPA 215 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Introduction to basic audiometric tests, principles of speech audiometry, masking, and impedance audiometry, "test battery" approach. (Formerly 7700:335)

**SLPA:345 Audiologic Treatment (4 Credits)**

Prerequisites: SLPA 335 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Introduction to philosophy and methods of aural rehabilitation for children and adults. Includes methods of speech reading, auditory training, speech conservation, hearing aid use and combined visual and auditory approaches. (Formerly 7700:345)

**SLPA:365 Anatomy & Physiology of Speech & Hearing (3 Credits)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, BIOL 203 and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Study of the anatomy and physiology of organs directly and indirectly responsible for production of speech and perception of acoustical signals. (Formerly 7700:365)

**SLPA:366 Anatomy & Physiology Laboratory (1 Credit)**

Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203 or instructor permission, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Corequisite: SLPA 365. Laboratory to accompany lecture, includes hands-on experience with a variety of laboratory materials, primarily models and virtual dissection. (Formerly 7700:366)

**SLPA:401 Professional Practice and Communications in Child Life (1 Credit)**

Provide knowledge in the area of child life professional practice. Exploration of the tenets of the child life profession and identify essential professional concepts and attributes. (Formerly 7700:401)

**SLPA:403 Professional Practice and Communications in Child Life (3 Credits)**

Provide the knowledge of child life professional practice, standards of clinical practice, competencies and ethics. Skills related to therapeutic communication with patients, families and staff will be explored and practiced. (Formerly 7700:403)

**SLPA:422 Organic Disorders of Communication (4 Credits)**

Prerequisites: SLPA 230, SLPA 365, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Surveys communication disorders that accompany acquired neurological impairments and neurodevelopmental syndromes. Introduces neurological models, classification systems, diagnostic and treatment procedures. (Formerly 7700:422)

**SLPA:430 Aspects of Normal Language Development (3 Credits)**

(Not open to speech-language pathology and audiology majors) Introduction to acquisition and development of comprehension and production of language phonologically, semantically and syntactically. Relates language acquisition to perceptual development of child and looks at function of language in individual, family and school. (Formerly 7700:430)

**SLPA:445 Multicultural Considerations for Audiologists & Speech-Language Pathologists (3 Credits)**

Prerequisites: SLPA 210, SLPA 321, SLPA 330, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language and Audiology. This course introduces the multicultural considerations faced by audiologists and speech-language pathologists providing services to families and individuals with communication disorders. (Formerly 7700:445)

**SLPA:446 Observation and Clinical Techniques (4 Credits)**

Prerequisites: SLPA 110, SLPA 210, SLPA 215, SLPA 230, and admission to the Bachelor of Arts or Bachelor of Arts Tagged degree in Speech-Language Pathology and Audiology. Introduction to concepts and processes of clinical practice in speech-language pathology and audiology. Includes clinical observation and case study. (Formerly 7700:446)

**SLPA:452 Child, Illness and Loss (3 Credits)**

Prerequisite: Senior standing. This course examines the phenomena of illness, loss and bereavement in modern society with a special emphasis on children and families. (Formerly 7700:452)

**SLPA:453 Facilitating Support Groups (3 Credits)**

Prerequisite: Senior standing. Theories, strategies and skills needed to facilitate support groups for children and for adults are studied using a variety of approaches including participation in a support group. (Formerly 7700:453)

**SLPA:454 Child in the Hospital (6 Credits)**

Prerequisite: CHFD 265, comparable course or permission of instructor. Seminar dealing with special needs and problems of hospitalized/ill child and family. Literature related to effects, separation, illness and stress. Examination of strategies for coping. (Formerly 7700:454)

**SLPA:455 Practicum Experience in Child-Life Program (3 Credits)**

Prerequisite: SLPA 454. Field experience in a child-life program and classroom activities including critical analysis of a currently functioning program and program administration. (Formerly 7700:455)

**SLPA:480 Seminar in Speech-Language Pathology and/or Audiology (2 Credits)**

Prerequisite: Senior standing. Provides a vehicle for detailed study and discussion of various communicative disorders. (Formerly 7700:480)

**SLPA:481 Special Projects: Speech-Language Pathology & Audiology (1-3 Credits)**

(May be repeated for a total of four credits) Prerequisite: Permission of instructor. Individual or group projects related to any of the problems of communicative disorders. (Formerly 7700:481)

**SLPA:484 Hospital Settings, Children and Families (5 Credits)**

Prerequisite: CHFD 265, comparable course or permission of instructor. Focuses on hospital as a major social institution; introduces procedures and functions of the hospital; roles played by various hospital personnel plus cursory knowledge of medical terminology, common childhood diseases, illnesses and injuries. (Formerly 7700:484)

**SLPA:485 Teaching & Learning Strategies in Speech-Language Pathology (2 Credits)**

Current practice related to clinical intervention designed for individuals with developmental disabilities. Explores the use of the natural environment and the computer as intervention tools. (Formerly 7700:485)

**SLPA:494 Internship: Guided Experiences in Child Life Program (8 Credits)**

Prerequisite: SLPA 455. Field experience in a child-life program at an approved pediatric facility under the supervision of Child Life Specialists. (Formerly 7700:494)

**SLPA:496 Senior Honors Project: Speech-Language Pathology & Audiology (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisites: enrollment in the Honors Program, senior standing and major in speech-language pathology and audiology. (Formerly 7700:496)

## Sport Studies/Sport Science (SPRT)

**SPRT:100 Introduction to Sport Studies (3 Credits)**

Introduction to sport studies explores the history, philosophy, and principles of today's sport industry within a practical, career-oriented framework. (Formerly 5550:100)

**SPRT:160 Introduction to Coaching (3 Credits)**

An introduction to the coaching profession. Discussion of the important technical and tactical elements of coaching athletes. (Formerly 5550:160)

**SPRT:206 Coaching Basketball (3 Credits)**

An introduction to coaching basketball. Discussion of the important technical and tactical elements of coaching basketball. (Formerly 5550:206)

**SPRT:207 Coaching Track and Field (3 Credits)**

An introduction to coaching track and field. Discussion of the important technical, tactical and psychological elements of coaching track and field. (Formerly 5550:207)

**SPRT:208 Coaching Football (3 Credits)**

An introduction to coaching football. Discussion of the important technical and tactical elements of coaching football. (Formerly 5550:208)

**SPRT:209 Coaching Baseball (3 Credits)**

An introduction to coaching baseball. Discussion of the important offensive, defensive, and technical and tactical elements of coaching baseball. (Formerly 5550:209)

**SPRT:362 Sport History (3 Credits)**

This course is designed to introduce students to sport in American History. The people, organizations and institutions that shaped the development of sport are examined. (Formerly 5550:362)

**SPRT:364 Sport Ethics (3 Credits)**

The focus of this course is the ethical behavior of sport participants and sport administrators studied within the context of the sport environment. (Formerly 5550:364)

**SPRT:366 Sport Communication (3 Credits)**

The focus of this course is on the important knowledge that administrators should have related to the field of sport communication. (Formerly 5550:366)

**SPRT:368 Sport Facility Management (3 Credits)**

This course has been designed to identify the systems approach for the effective management of the maintenance and operation of sport and recreation facilities. (Formerly 5550:368)

**SPRT:370 Financial Aspects of Sport (3 Credits)**

The focus of this course is related to the important knowledge that administrators should have related to the field of the financial aspects of sport. (Formerly 5550:370)

**SPRT:375 Sport Performance Principles (3 Credits)**

An introduction to important elements related to the physical aspects of sport performance. Discussion of the important physical elements of coaching athletes. (Formerly 5550:375)

**SPRT:395 Field Experience (1-6 Credits)**

Practical experience in an area related to physical education under supervision of faculty member. Student works with current physical education programs or exercise science settings. May be repeated for a maximum of 12 credits. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:395)

**SPRT:409 Sport Behavior (3 Credits)**

The focus of this course is the behavior of athletes and sport participants studied within the context of play, games, and sport. (Formerly 5550:409)

**SPRT:410 Introduction to Sport Sociology (3 Credits)**

Provides information to students about the sociological aspects of sport. (Formerly 5550:410)

**SPRT:420 Fundamentals of Management Strategies in Sport (3 Credits)**

This course seeks to explore, acquire, and discuss knowledge within the theoretical and applied management practices of sport, fitness, and instructional programs. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:420)

**SPRT:422 Sport Planning/Promotion (3 Credits)**

Analysis of marketing/promotions from a sport manager's perspective. Emphasis on marketing strategy, tactics and development in sport delivery systems. (Formerly 5550:422)

**SPRT:424 Sports Leadership (3 Credits)**

Introduces students to current issues related to leadership, management, and supervision. Examines current sport leadership research and governance structure of amateur and professional sport organizations. (Formerly 5550:424)

**SPRT:453 Principles of Coaching (3 Credits)**

Prerequisite: Admission to the Sport Science and Wellness Program. Basics for becoming a successful coach. Discussion of principles applying to most sports, players and coaches. Ten clinical hours required. Students must be in the Sport Science and Wellness Program to take 300/400 level courses. (Formerly 5550:453)

**SPRT:462 Legal Aspects of Physical Activity (2 Credits)**

Overview legal and ethical elements of greatest concern to specialists in sport and physical activity. Cases used to illustrate specific points. Topics vary. (Formerly 5550:462)

## Statistics (STAT)

**STAT:250 Statistics for Everyday Life (4 Credits)**

Prerequisite: placement test. Conceptual approach to the basic ideas and reasoning of statistics. Topics include descriptive statistics, probability (uncertainty), statistical inference (estimation and hypothesis testing). Computer applications laboratory. (Formerly 3470:250)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**STAT:260 Basic Statistics (3 Credits)**

Prerequisite: placement test. Applied approach to data description and statistical inference (hypothesis testing, estimation). Analysis of ratios, rates, and proportions. Computer applications. Laboratory. (Formerly 3470:260)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**STAT:261 Introductory Statistics I (2 Credits)**

Prerequisite: placement test. Descriptive statistics, tabular and graphical data displays; probability, probability distributions. Introduction to statistical inference (hypothesis testing, estimation); one-sample parametric and nonparametric methods. Computer applications. (Formerly 3470:261)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**STAT:262 Introductory Statistics II (2 Credits)**

Prerequisite: STAT 261 or equivalent. Parametric and nonparametric methods of statistical inference for paired data and two-sample problems; one-way ANOVA, simple linear regression and correlation. Computer applications. (Formerly 3470:262)

**Ohio Transfer 36:** Yes

**Gen Ed:** - Mathematics, Statistic, Logic

**STAT:289 Selected Topics in Statistics (1-3 Credits)**

Prerequisite: Permission. Selected topics of interest in statistics. (Formerly 3470:289)

**STAT:360 Statistical Investigations (3 Credits)**

Prerequisites: STAT 250 or STAT 260 or STAT 262. This course provides practical statistical methods beyond the introductory course. The topics include design of experiments, data analysis, multiple regression and modern software use. (Formerly 3470:360)

**STAT:401 Probability and Statistics for Engineers (2 Credits)**

Prerequisite: MATH 221. Introduction to probability, statistics, random variables, data descriptions, statistical inference, confidence intervals, hypothesis testing, design of experiments, and applications of statistics to engineering. (Formerly 3470:401)

**STAT:450 Probability (3 Credits)**

Prerequisite: MATH 221. Introduction to probability, random variables and probability distributions, expected value, sums of random variables, Markov processes. (Formerly 3470:450)

**STAT:451 Theoretical Statistics I (3 Credits)**

Prerequisite: MATH 223. Sequential (part 1 of 2). Appropriate background is three semesters of calculus or equivalent. Elementary combinatorial probability theory, probability distributions (discrete and continuous), expectation and variance, bivariate and multivariate distributions, distributions of functions of random variables. (Formerly 3470:451)

**STAT:452 Theoretical Statistics II (3 Credits)**

Prerequisite: STAT 451. Sequential (2nd of 2 parts). Sampling distributions, point estimation and properties of point estimators, sufficiency, Rao-Blackwell method and MVUE, methods of obtaining point estimators, interval estimation, hypothesis testing, Neyman-Pearson theory of optimal tests (Formerly 3470:452)

**STAT:461 Applied Statistics (4 Credits)**

Prerequisite: MATH 221. Applications of statistical theory to natural and physical sciences and engineering, including probability distributions, interval estimation, hypotheses testing (parametric and nonparametric), and simple linear regression and correlation. (Formerly 3470:461)

**STAT:462 Applied Regression and ANOVA (4 Credits)**

Prerequisite: STAT 262 or STAT 461. Applications of the techniques of regression and multifactor analysis of variance. (Formerly 3470:462)

**STAT:465 Design of Sample Surveys (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Design and analysis of frequently used sample survey techniques. (Formerly 3470:465)

**STAT:466 Applied Nonparametric Statistical Methods (3 Credits)**

Prerequisites: [STAT 261 and STAT 262] or STAT 461. This course introduces the basic tasks of inferential statistics (estimation, hypothesis testing, regression, analysis of variance) in situations where the usual assumption of the data following a parametric distribution cannot be justified or verified. Topics include the one-sample location problem, the two-sample location problem, the two-sample dispersion problem, the case with 3 or more populations – one-way layout, the case with 3 or more populations – two-way layout, binary data and success probabilities, regression and correlation. (Formerly 3470:466)

**STAT:469 Reliability Models (3 Credits)**

Prerequisite: STAT 461. Selected topics in reliability modeling including parametric and nonparametric models, competing modes of failure, censored data and accelerated life models. (Formerly 3470:469)

**STAT:470 Biostatistics and Epidemiology (3 Credits)**

Prerequisite: STAT 261 and STAT 262 or STAT 461, or equivalent. Biostatistics and Epidemiological methods for biological and medical studies, including ANOVA, analysis of repeated measures, disease-related measures, log-linear models, and clinical trials. (Formerly 3470:470)

**STAT:471 Introduction to Actuarial Science (3 Credits)**

Prerequisite: MATH 221 or equivalent. Pre/Corequisite: MATH 222 or equivalent. Interest theory and financial mathematics used in actuarial science. Topics include value of money, annuities, loans, bonds, cash flows and immunization, interest rate swaps. (Formerly 3470:471)

**STAT:472 Actuarial Models (3 Credits)**

Prerequisite: STAT 451. Study of severity, frequency and aggregate models used in actuarial applications. Calibration and evaluation. credibility procedures, fundamental principles of pricing in short-term insurance coverage. (Formerly 3470:472)

**STAT:473 Survival Analysis (3 Credits)**

Prerequisite: STAT 262 or STAT 461. Basic concepts in survival analysis, censoring and data truncation, estimation of survival models, nonparametric hazard and survival function estimation, comparing survival times between groups. (Formerly 3470:473)

**STAT:475 Foundations of Statistical Quality Control (3 Credits)**

Prerequisite: STAT 461 or equivalent. Course provides a solid foundation in the theory and applications of statistical techniques widely used in industry. (Formerly 3470:475)

**STAT:476 Bayesian Statistics (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Basic concepts in Bayesian theory, sampling methods, MCMC, and hierarchical modeling. Computer applications of Bayesian statistics to natural; and physical; sciences and engineering. (Formerly 3470:476)

**STAT:477 Time Series Analysis (3 Credits)**

Prerequisite: STAT 262, STAT 450, STAT 451, or STAT 461. Stationarity. ARIMA modeling with seasonality. Parameter estimation, model diagnostics and forecasting. Regression with autocorrelated errors. Cointegration and multivariate ARMA models. Heteroscedasticity and long-memory models (Formerly 3470:477)

**STAT:480 Statistical Data Management (3 Credits)**

Prerequisite: STAT 262 or STAT 461. Students learn data organization and structures, design of statistical data bases, statistical software analysis, importing and exporting data between software, and missing data analysis. (Formerly 3470:480)

**STAT:483 Advanced Statistical Computing (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Topics include data management, random number generation, resampling methods, numerical optimization, Markov Chain Monte Carlo, smoothing methods, data mining: clustering and classification. (Formerly 3470:483)

**STAT:484 Introduction to Machine Learning (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Methodologies for statistical learning, including generalized logistic regression, ridge regression, neural networks, support vector machines, principal components analysis, and K-means and hierarchical clustering (Formerly 3470:484)

**STAT:485 Applied Analytics-Decision Trees (3 Credits)**

Prerequisite: STAT 262 or STAT 461. Selected topics in predictive modeling using CHAID, Classification and Regression Trees, Logistic Regression and Neural Networks (Formerly 3470:485)

**STAT:486 Spatial-temporal Statistics (3 Credits)**

Prerequisite: STAT 262 or STAT 461 or equivalent. Basic concepts of geostatistics, point pattern, area unit. Spatial-temporal modeling in high dimensional data. Computer applications to natural and physical sciences and engineering. (Formerly 3470:486)

**STAT:489 Topics in Statistics (1-3 Credits)**

(May be repeated for a total of six credits) Prerequisite: Permission. Selected topics in advanced statistics, including quality control, reliability, sampling techniques, decision theory, advanced inference, stochastic processes and others. (Formerly 3470:489)

**STAT:491 Workshop in Statistics (1-3 Credits)**

(May be repeated with change of topic) Group studies of special topics in statistics. May not be used to meet undergraduate or graduate major requirements in mathematics and statistics. May be used for elective credit only. (Formerly 3470:491)

**STAT:494 High-Dimensional High-Throughput Data Analysis (3 Credits)**

Prerequisites: STAT 462 and STAT 480, or permission or instructor. This course provides exposure to a variety of advanced statistical methods (beyond the ones taught in our undergraduate curriculum) for handling the challenges of high-dimensional high-throughput data, along with their software implementation and applications. Topics include multiple hypothesis testing and multiplicity adjustment, curse of dimensionality, sparsity, high-dimensional data visualization, dimension reduction methods, model selection and estimator selection, machine learning methods, and aggregation of estimators and classifiers. (Formerly 3470:494)

**STAT:495 Statistical Consulting (1-3 Credits)**

Prerequisite: STAT 462 or STAT 480 or permission. Students will learn about various aspects of statistical consulting and will work on current projects of the Center for Statistical Consulting. May be repeated for a total of 4 credits. (Formerly 3470:495)

**STAT:496 Advanced Statistical Methods for Modern Data Analysis (3 Credits)**

Prerequisites: STAT 462 and STAT 480, or permission of instructor. This course provides exposure to a variety of advanced statistical methods (beyond the ones taught in our undergraduate curriculum) for handling the challenges of modern-day data analysis, along with their software implementation and applications. Topics include distribution-free statistical methods, modern regression methods (robust, penalized, nonparametric), generalized linear models, random effects models, generalized linear mixed models, generalized additive models, some machine learning methods, some data mining methods, and an introduction to biostatistics. (Formerly 3470:496)

**STAT:497 Individual Reading: Statistics (1-2 Credits)**

(May be repeated for a total of four credits) Prerequisites: senior standing and permission. Directed studies in statistics designed as introduction to research problems under guidance of selected faculty member. (Formerly 3470:497)

**STAT:498 Senior Honors Project (2-3 Credits)**

Prerequisite: STAT 489 (honors) and senior in the Honors Program. Directed study for a senior student in the University Honors Program who has completed STAT 489 (honors). An introduction to research problems in Statistics under the guidance of selected faculty. (Formerly 3470:498)

## Supply Chain and Operations Management (SCM)

**SCM:330 Principles of Supply Chain and Operations Management (3 Credits)**

Prerequisite: Completion of 32 credit hours. An overview of the terminology, fundamental concepts and scope of responsibility encountered in the fields of supply chain and operations management. (Formerly 6500:330)

**SCM:333 Supply Chain and Operations Analysis (3 Credits)**

Prerequisites: MGMT 304 and SCM 330. Application of quantitative models in the analysis and design of systems in the supply chain and in manufacturing and service operations environments. (Formerly 6500:333)

**SCM:334 Service Operations Management (3 Credits)**

Prerequisite: SCM 330. An overview of the fundamental terminology, principles, concepts and problem solving methods encountered in the contemporary field of service operations management. (Formerly 6500:334)

**SCM:390 Supply Chain Modeling and Decision Making (3 Credits)**

Prerequisites: ACCT 250, MGMT 304, and SCM 330. Spreadsheet based, example-driven approach to develop models and methodologies for supply chain analysis and decision making. (Formerly 6500:390)

**SCM:421 Operations Research (3 Credits)**

Prerequisites: Must be admitted to a major in a four-year degree granting college and SCM 330. Examines the use of operations research techniques in managerial decision-making processes; constrained linear optimization, non-linear optimization, network analysis, queuing theory, simulation. (Formerly 6500:421)

**SCM:433 Supply Chain Logistics Planning (3 Credits)**

Prerequisites: Admission to a major in a 4-year degree granting college and SCM 330. Emphasizes the importance of planning in the development of the domestic and global supply chain logistics system that includes transportation, inventory, warehousing and procurement. (Formerly 6500:433)

**SCM:434 Production Planning & Control (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level standing, and SCM 333. Coverage of materials management, production planning, scheduling and control. Integrates material from previous courses, provides overall framework including use of computer and quantitative methods. (Formerly 6500:434)

**SCM:435 Quality Management & Control (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, upper level standing, and SCM 330. Emphasis on statistical techniques essential to controlling product quality for both measurement and attribute data. Includes control chart methods and acceptance sampling plans. (Formerly 6500:435)

**SCM:475 Supply Chain Operations Strategy (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college, MGMT 302, ISM 310, SCM 333, and SCM 390. Pre/Corequisites: SCM 433 and SCM 476. Capstone course integrating supply chain concepts to solve real world supply chain problems primarily using a case study approach. (Formerly 6500:475)

**SCM:476 Supply Chain Sourcing (3 Credits)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college and SCM 330. Introduces the student to fundamental sourcing concepts as well as the scope of responsibility and critical roles of the sourcing function within the principal organization in a supply chain network. (Formerly 6500:476)

**SCM:479 Operations Simulation (1 Credit)**

Prerequisites: Must be admitted to a major in a 4-year degree granting college and SCM 333. Simulation of operations management practices through computerized or experiential exercises. (Formerly 6500:479)

**SCM:486 Internship in Supply Chain/Ops (3 Credits)**

Prerequisite: Permission of department chair or designated faculty member. On the job experiences with public or private sector organizations. (Formerly 6500:486)

## Surveying and Mapping (SURV)

**SURV:100 Introduction to Geomatics (2 Credits)**

An introductory course into the field of surveying and mapping technology. Integrated topics include: types of surveys, cartography, and geographic information systems. (Formerly 2980:100)

**SURV:101 Basic Surveying (3 Credits)**

Corequisite: MATH 153 or MATH 154 or MATH 255 or MATH 356 or MATH 145 or MATH 149 or MATH 221 or MATH 222 or MATH 335. Care and use of basic surveying field instruments and the basic computations and adjustments necessary to post process the field survey measurements. Field Practice. (Formerly 2980:101)

**SURV:102 Topographic Surveying (2 Credits)**

Prerequisites: SURV 101 and MATH 153. Computations and adjustments of field survey measurements using both conventional and computer methods. Development of maps and plans stressed. Field Practice. (Formerly 2980:102)

**SURV:105 Introduction to Geographic & Land Information Systems (3 Credits)**

Introduction to the principles and concepts of Geographic and Land Information Systems used in surveying and mapping applications. Laboratory. (Formerly 2985:101)

**SURV:123 Surveying Field Practice (2 Credits)**

Prerequisite: SURV 102 or equivalent. Practical experience in use of surveying equipment and methods of surveying. Provides students with responsibility for making decisions and planning and directing complete project. (Formerly 2980:123)

**SURV:155 Computer Applications in Surveying (3 Credits)**

Use of current surveying software to solve typical problems/projects in surveying technology. (Formerly 2980:155)

**SURV:170 Surveying Drafting (3 Credits)**

Corequisite: MATH 152 or permission. Drafting procedures, techniques, and tools required for the various phases of survey office work. Projects include topographic maps, plan and profile drawings, and cross-section drawings. Laboratory. (Formerly 2980:170)

**SURV:201 Intermediate Geographic and Land Information Systems (3 Credits)**

Prerequisite: SURV 105. Continued instruction in the hands-on technical applications of Geographic and Land Information Systems. Laboratory. (Formerly 2985:201)

**SURV:205 Building Geodatabases (3 Credits)**

Prerequisite: SURV 105. Introduction and application of spatial geodatabases. The student will create, use, and manage geodatabases. Geodatabases are used for storing spatial and attribute data. Laboratory. (Formerly 2985:205)

**SURV:222 Construction Surveying (3 Credits)**

Prerequisite: SURV 101. Methods and procedures for establishing line and grade for construction. Circular and parabolic curves. Cross-sectioning methods and earthwork. Communication and plan reading. (Formerly 2980:222)

**SURV:223 Geospatial Technologies (3 Credits)**

Introduction to current and emerging geospatial technologies, such as Geographic Information Systems, remote sensing and global positioning systems, and exploring mapping data sources. Laboratory required. (Formerly 2980:223)

**SURV:225 Advanced Surveying (3 Credits)**

Prerequisite: SURV 101. Introduction to flood maps, ALTA surveys, and geodesy. Advanced topics in control surveys, state plane coordinates, and bearings from celestial observation. (Formerly 2980:225)

**SURV:228 Boundary Surveying (3 Credits)**

Prerequisite: SURV 101 or equivalent. Analysis of evidence and procedures for boundary location; establishing and/or locating points for boundary and mortgage location surveys; plat preparation. Ohio survey minimum standards. (Formerly 2980:228)

**SURV:251 CST Seminar (1 Credit)**

Prerequisite: SURV 222. Prepares students for the National Society of Professional Surveyors Certified Surveying Technician (CST) Level I Examination. Examination is given at the end of the review sessions. (Formerly 2980:251)

**SURV:310 Survey Computations & Adjustments (2 Credits)**

Prerequisite: SURV 225. Concepts relating to measurement error, probability, and reliability. Computation and adjustment of horizontal and vertical networks. (Formerly 2980:310)

**SURV:315 Boundary Control & Legal Principles (3 Credits)**

Prerequisite: SURV 228. Historical development of boundaries, rectangular system of public land surveys, systems to describe property, surveyor's responsibility to understand and properly apply legal principles to boundary. (Formerly 2980:315)

**SURV:325 Safety for Surveyors (1 Credit)**

To provide safety and first aid training required for surveying. (Formerly 2980:325)

**SURV:330 Applied Photogrammetry (3 Credits)**

An introduction to metrical and quantitative photogrammetry using both hard- and soft-copy systems. Laboratory. (Formerly 2980:330)

**SURV:335 The Business of Surveying (2 Credits)**

A course focused on the business aspects of surveying, including development of business plan components for a company offering professional surveying and mapping services. (Formerly 2980:335)

**SURV:340 Cadastral Surveying (2 Credits)**

Prerequisites: SURV 101. A study of the official surveys of the United States. Cadastral surveys establish or recreate boundaries and /or tracts of land. (Formerly 2980:340)

**SURV:350 Mapping with Drones (3 Credits)**

An introduction to Unmanned Aircraft Systems (UAS) and its associated applications as it relates to land surveying and mapping. (Formerly 2980:350)

**SURV:410 LiDAR and Laser Scanning (2 Credits)**

Prerequisite: SURV 105. Introduction to LiDAR (aerial and terrestrial) scanning as it applies to surveying and mapping. The course will discuss the collection and dissemination methods of the data. (Formerly 2980:410)

**SURV:415 Legal Aspects of Surveying (3 Credits)**

Prerequisite: SURV 315. A study of statute and common law related to land surveying. Evidence and the surveyor's role in the judicial process. Interpreting and writing land descriptions. (Formerly 2980:415)

**SURV:420 Route Surveying (3 Credits)**

Prerequisite: SURV 225. Surveying for long but narrow strips of land such as highways, railroads, and pipe lines. Course includes all requisite calculations and drawings. (Formerly 2980:420)

**SURV:421 Subdivision Design (3 Credits)**

Prerequisites: SURV 155, SURV 222, and SURV 315. Site analysis, land use controls, and plotting procedures. Laboratory includes preparation of various types of projects leading to a complete subdivision. (Formerly 2980:421)

**SURV:422 Global Positioning System Surveying (3 Credits)**

Prerequisites: SURV 225 and SURV 105 or permission. Introduction to the Global Positioning System (GPS). Course includes the planning, data collection, and processing of GPS data. (Formerly 2980:422)

**SURV:425 Land Navigation (3 Credits)**

Interpretation and use of topographic maps. Study of basic map elements with emphasis on identification of features and coordinate systems. Map use for land navigation. (Formerly 2980:425)

**SURV:426 History of Surveying To 1785 (2 Credits)**

A history of land surveying. Emphasis on the development of survey procedures through history. Part I (to 1785) covers the ancient world to the colonial period. (Formerly 2980:426)

**SURV:427 Ohio Lands (2 Credits)**

Study of the history of the original Ohio Land Subdivisions (Formerly 2980:427)

**SURV:428 History of Surveying Since 1785 (2 Credits)**

A history of land surveying. Emphasis on the development of survey procedures through history. Part II (Since 1785) covers the history of the United States to date. (Formerly 2980:428)

**SURV:430 Surveying Project (3 Credits)**

Prerequisite: Senior standing and placement of advisor. Provides opportunity to research and develop a specific surveying project within chosen area of surveying. Oral, written and graphical presentation of completed project(s). (Formerly 2980:430)

**Gen Ed:** - Capstone

**SURV:431 Senior Seminar (2 Credits)**

Prerequisite: Senior or greater standing. Students demonstrate knowledge and skills acquired as surveying majors through assessment testing and review of professional licensure laws. Preparation for national exams. (Formerly 2980:431)

**SURV:445 Applications in GIS using GPS (3 Credits)**

Prerequisite: SURV 105. Advanced instruction in GIS applications using GPS as well as other surveying and mapping methods. Laboratory. (Formerly 2980:445)

**SURV:450 Topics in Professional Practice (2 Credits)**

Prerequisite: Junior or greater standing. Topics in applicational areas of surveying from the point of view of the practitioner and the consumer of land-related data. (Formerly 2980:450)

**SURV:489 Special Topics in Surveying (1-3 Credits)**

Prerequisite: Permission. Special lecture/laboratory courses offered once or only occasionally in areas where no formal course exists. (May be repeated for a maximum of six credits.) (Formerly 2980:489)

**SURV:490 Workshop in Surveying (1-3 Credits)**

Prerequisite: Permission. Group study of special topics in surveying. May not be used to meet undergraduate major requirements in surveying. May be used for elective credit only. (May be repeated for a maximum of six credits.) (Formerly 2980:490)

**SURV:495 Internship: Surveying and Mapping (3 Credits)**

Prerequisites: 64 hours in program and permission. Supervised work experience in surveying and mapping to increase student understanding of surveying and mapping technology. (Formerly 2980:495)

**SURV:497 Surveying Honors Project (3 Credits)**

Prerequisite: Senior standing in the honors program. Provides opportunities to research and develop a specific surveying project within chosen area of surveying. Oral, written, and geographical presentation of completed projects. (Formerly 2980:497)

**SURV:498 Independent Study (1-3 Credits)**

Prerequisite: Permission or instructor. Directed study in a special field of interest chosen by student in consultation with instructor. (May be repeated for a total of six credits). (Formerly 2980:498)

## Technical Education (EDTE)

**EDTE:400 Adult Learning (3 Credits)**

Describes characteristics of the adult learner and examines issues, factors, and strategies pertinent to successful facilitation of learning in a variety of training environments. (Formerly 5400:400)

**EDTE:401 Learning with Technology (3 Credits)**

Application of learning technologies to situations encountered by academic and professional learners. Addresses foundational concepts of computer literacy, ethics, security, collaboration, and learning design. (Formerly 5400:401)

**EDTE:413 Instructional Design Profession (3 Credits)**

Examination of the Instructional Design profession, its history, trends, issues and impact on Instruction Design's future. Research on best practice in the field are explored. (Formerly 5400:413)

**EDTE:415 Talent Development and Training (3 Credits)**

Prerequisites: EDTE 401 or permission from instructor. Examine the training function within talent development from a global perspective. Explore best practices for today's workforce. Identify emerging trends and training solutions. (Formerly 5400:415)

**EDTE:420 eLearning by Design (3 Credits)**

Experiences in using, developing and evaluating learning technologies and media used for instructional design and training. (Formerly 5400:420)

**EDTE:430 Program Planning (3 Credits)**

Process of program planning and evaluation for instructional design and training for a variety of adult learning organizations. (Formerly 5400:430)

**EDTE:435 Systematic Instructional Design in Postsecondary Education (3 Credits)**

Prerequisites or corequisites: EDTE 401, EDTE 420, EDTE 430, admission to program, or permission of instructor. Examination of instructional design models with particular emphasis of the ADDIE model. Study of applications to Instructional Design Technology. (Formerly 5400:435)

**EDTE:475 Instructional Delivery (3 Credits)**

Prerequisite: Permission of department. Implementation of instructional design principals in the proposal, design, development, implementation, assessment and evaluation (ADDIE) of eLearning and other delivery of training courses. (Formerly 5400:475)

**EDTE:480 Globally Diverse Workforce (3 Credits)**

Study of cultural pluralism and disability in the workplace and the best practices, as related to training in adult learning organizations. (Formerly 5400:480)

**EDTE:481 Special Topics: Technical Education (1-4 Credits)**

See department for course description. (Formerly 5400:481)

**EDTE:490 Workshop: Technical Education (1-3 Credits)**

Individual work under staff guidance on curriculum problems, utilization of community resources, planning of curriculum units. Delivered in a totally on-line format and face to face format with web enhancements. (Formerly 5400:490)

**EDTE:495 Postsecondary Education Practicum (3 Credits)**

Prerequisites: EDTE 400, EDTE 401, EDTE 405, EDTE 415, EDTE 420, EDTE 430, EDTE 435, and admission to the Postsecondary Technical Education program with a "C" or better in each EDTE course and a 2.5 or better overall GPA in EDTE courses, and an overall GPA of 2.5 or better. Directed instruction under the supervision of directing instructor and university supervisor, and development of instructional portfolio. (Formerly 5400:495)

**EDTE:497 Independent Study: Technical Education (1-3 Credits)**

Area of study determined by student's need. (Formerly 5400:497)

## Theatre (THEA)

**THEA:100 Experiencing Theatre (3 Credits)**

Experience the theatre as a live, dynamic art form through an exposure to and participation in University productions. (Formerly 7800:100)

**Gen Ed:** - Arts

**THEA:103 Theatre Orientation (0 Credits)**

Orientation to the information and strategies necessary to aid new theatre students in their understanding of the field of theatre. (Formerly 7800:103)

**THEA:108 Introduction to the Visual Arts of World Theatre (3 Credits)**

Introduction to the theories and styles of scenic, costume, and lighting design from around the world, including the application of these principles to various media. (Formerly 7800:108)

**THEA:145 Ensemble Theatre Lab (3 Credits)**

An introduction to the techniques of collaborative creation and physical theatre especially space awareness, movement training, and storytelling. (Formerly 7800:145)

**THEA:151 Vocal Dynamics (3 Credits)**

This course is concerned with the various techniques and principles of vocal production in their practical application providing a structure to discover your vocal potential. (Formerly 7800:151)

**THEA:172 Acting I (3 Credits)**

Introductory fundamentals of acting through the investigation of the body as an instrument for the stage, improvisation and basic scene study. (Formerly 7800:172)

**THEA:264 Playscript & Performance Analysis (3 Credits)**

An introduction to various methods of how to read and analyze a play script for theatre production, utilizing theories and tools from Aristotle to today. (Formerly 7800:264)

**Gen Ed:** - Arts

**THEA:265 Basic Stagecraft (3 Credits)**

Basic stagecraft including equipment, construction and handling of two-dimensional scenery and theatrical hardware. Laboratory required. (Formerly 7800:265)

**THEA:274 Digital Technology for Theatre (3 Credits)**

Hands-on exploration of theories and methods used in electronic development of promotional and creative materials. Activities include still and motion image capture, editing and distribution. (Formerly 7800:274)

**THEA:301 Introduction to Theatre Through Film (3 Credits)**

Prerequisite: HIST 210 or HIST 221. A study of the Theatre with emphasis on its cultural and social influences on our society. Does not meet the Humanities requirement for Theatre majors. (Formerly 7800:301)

**THEA:306 Costume Design for the Performing Arts and Media (3 Credits)**

Prerequisites: THEA 108. Costume design and construction techniques, organization and maintenance of wardrobe for stage performance and other types of production. Lab required. (Formerly 7800:306)

**THEA:335 History of Theatre and Dramatic Literature: Origins through 18th Century (3 Credits)**

The history and theory of dramatic literature and theatre practices from their origins through the 18th Century, including select non-western theatre traditions. (Formerly 7800:335)

**Gen Ed:** - Global Diversity

**THEA:336 Scenic Design for Performing Arts & Media (3 Credits)**

Prerequisites: THEA 108. The theory, principles, and practice of scene design for the theatre and other media. Lab required. (Formerly 7800:336)

**THEA:351 Advanced Ensemble Theatre Lab (3 Credits)**

Prerequisites: THEA 145. Advanced training in the techniques and principles of collaborative creation and physical theatre leading toward performance of a devised solo and/or group performance. (Formerly 7800:351)

**THEA:355 Lighting Design and Technology (3 Credits)**

Prerequisites: THEA 108 The art and technique of lighting design for the stage and other media: light plotting, color theory, and special effects. Lab required. (Formerly 7800:355)

**THEA:370 Directing I (3 Credits)**

Prerequisites: THEA 100, THEA 172, and THEA 264. Emphasizes fundamentals of play directing, including responsibilities of director, stage nomenclature, play selection, analysis, and rehearsal techniques. (Formerly 7800:370)

**THEA:373 Acting II (3 Credits)**

Prerequisite: THEA 172. Continuation of THEA 172. Further emphasis on the psychology of the actor and development of performing techniques through scene study. (Formerly 7800:373)

**THEA:374 Acting III (3 Credits)**

Prerequisite: THEA 373. Further in-depth actor training with emphasis on the language and interpretation of classic plays including Shakespeare. (Formerly 7800:374)

**THEA:403 Special Topics: Theatre Arts (1-3 Credits)**

Prerequisite: Permission. Traditional and nontraditional topics in theatre arts. (May be repeated, only 3 credits may apply to Theatre major and on 9 credits toward B.A degree). (Formerly 7800:403)

**THEA:433 Theatre Organization & Production Management (3 Credits)**

Study of successful methods of theatre organization and production stage management of professional and non-professional performing arts operations. (Formerly 7800:433)

**THEA:435 History of Theatre and Dramatic Literature: 1800 to Present (3 Credits)**

The history and theory of dramatic literature and theatre practices from the nineteenth century through the present, including select non-western theatre traditions. (Formerly 7800:435)

**Gen Ed:** - Global Diversity

**THEA:436 Styles of Scenic Design for the Performing Arts and Media (3 Credits)**

Prerequisite: THEA 336. Theatrical and practical exploration of the styles and periods of production design and designers for stage and media. Lab required. (Formerly 7800:436)



**THEA:455 Creating Performance (3 Credits)**

(May be repeated for a total of six credits.) This course introduces devising processes, improvisation, ensemble work, and physical theatre techniques appropriate to the preparation of practical performance projects from sources other than a conventional play. (Formerly 7800:455)

**THEA:461 Directing II (3 Credits)**

Prerequisite: THEA 370. Emphasizes fundamentals of play directing, including responsibilities of director, stage nomenclature, play selection, analysis, and rehearsal techniques. (Formerly 7800:461)

**THEA:467 Multi-Cultural Theatre (3 Credits)**

A detailed examination of contemporary performances, performance texts, and theoretical writings that reference the history and experience of diverse communities of America and the world. (Formerly 7800:467)

**Gen Ed:** - Domestic Diversity

**THEA:471 Senior Seminar (1 Credit)**

Prerequisites: THEA 274, upper class standing, and permission from the theatre advisor. A forum to develop professional skills to make the transition to a theatre career: artistic, academic, business and professional. (Formerly 7800:471)

**THEA:476 Theatre and Community Action (3 Credits)**

This course will explore civic engagement strategies and situations linking theatre and community in which students tackle community issues and concerns utilizing various performative techniques. (Formerly 7800:476)

**THEA:480 Independent Study: Theatre (1-3 Credits)**

Practice, study, and/or research in selected elements of theatre arts and production including preparation and presentation of creative and technological projects. (Formerly 7800:480)

**THEA:490 Workshop in Theatre Arts (1-3 Credits)**

(May be repeated for a total of 6 credits) Prerequisite: advanced standing or permission. Group study or group projects investigating particular phases of theatre arts not covered by other courses in curriculum. (Formerly 7800:490)

**THEA:495 Honors Research Project in Theatre (1-3 Credits)**

Prerequisite: Approval of department preceptor. Creative project or research supervised by theatre preceptor. (Formerly 7800:495)

## Theatre Organizations (THEO)

**THEO:100 Production Laboratory-Design/Technology (1 Credit)**

Prerequisite: Permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre. \*Required of all theatre majors. Majors are required to enroll in at least one credit production lab every semester they are in residence. (Formerly 7810:100)

**THEO:110 Performance Laboratory (1 Credit)**

(May be repeated for a total of 12 credits) Prerequisites: Permission of instructor. Provides student with practical performance experience theatre productions. \*Required of all theatre majors. (Formerly 7810:110)

**THEO:200 Production Laboratory-Design/Technology (1 Credit)**

Prerequisite: Permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre. \*Required of all theatre majors. Majors are required to enroll in at least one credit production lab every semester they are in residence. (Formerly 7810:200)

**THEO:210 Performance Laboratory (1 Credit)**

(May be repeated for a total of 12 credits) Prerequisites: Permission of instructor. Provides student with practical performance experience in theatre productions. \*Required of all theatre majors. (Formerly 7810:210)

**THEO:300 Production Laboratory-Design/Technology (1 Credit)**

Prerequisite: Permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre. \*Required of all theatre majors. Majors are required to enroll in at least one credit production lab every semester they are in residence. (Formerly 7810:300)

**THEO:310 Performance Laboratory (1 Credit)**

(May be repeated for a total of 12 credits) Prerequisites: Permission of instructor. Provides student with practical performance experience in theatre productions. \*Required of all theatre majors. (Formerly 7810:310)

**THEO:400 Production Laboratory-Design/Technology (1 Credit)**

Prerequisite: Permission of instructor. (May be repeated for a total of 12 credits) Provides student with practical experience in technical aspects of theatre. \*Required of all theatre majors. Majors are required to enroll in at least one credit production lab every semester they are in residence. (Formerly 7810:400)

**THEO:410 Performance Laboratory (1 Credit)**

(May be repeated for a total of 12 credits) Prerequisite: Permission of instructor. Provides student with practical performance experience in theatre productions. \*Required of all theatre majors. (Formerly 7810:410)

## University Orientation/General Education Special Topics (GNST)

**GNST:99 Independent Education Abroad (0 Credits)**

Academic study at an unaffiliated institution outside the continental United States (Formerly 1100: 99)

**GNST:100 UA Education Abroad (0 Credits)**

Academic study at an affiliated institution outside the continental United States.(Formerly 1100:100)

**GNST:101 The Akron Experience: University 101 (2 Credits)**

Acquisition of the skills, techniques, information, and strategies necessary to aid new students in their transition from high school or work to the college environment. Delivered in face-to-face format and fully online format. (Formerly 1100:101)

**GNST:102 Tutor Training I (1 Credit)**

Prerequisite: Permission from coordinator of tutorial programs based on GPA, letter of recommendation, and interview. Corequisite: Tutoring practicum of 25 hours. Training of peer tutors in several academic areas with topics to meet requirements of the College Reading and Learning Association. (Formerly 1100:102)

**GNST:103 Tutor Training II (1 Credit)**

Prerequisite: GNST 102. Summative training of peer tutors emphasizing assertiveness training, leadership skills, administering and interpreting a learning styles inventory, and structuring a learning experience. (Formerly 1100:103)

**GNST:104 Tutor Training III (1 Credit)**

Prerequisite: GNST 102. Summative training of peer tutors emphasizing assertiveness training, leadership skills, administering and interpreting a learning styles inventory, and structuring a learning experience. (Formerly 1100:104)

**GNST:110 Information Tools for Academic Success (1 Credit)**

Information Tools for Academic Success will allow a student to bring a real world problem or academic assignment to class to use as the framework upon which to build a repertoire of information skills. This class is a project-oriented, process-based course in which the students will: Identify and articulate an information need as it relates to a problem or assignment; effectively and efficiently access appropriate information using a variety of resources; critically evaluate the information; incorporate the information into their existing knowledge base; use the information appropriately and effectively to accomplish an explicit purpose; understand the legal, social, and economic aspects of information ultimately accessing and using information in an ethical manner. (Formerly 1100:110)

**GNST:117 Career Planning (2 Credits)**

Learners develop the skills necessary to make effective educational and career decisions. Emphasis upon self-understanding, career exploration, career planning, and decision making. Delivered in face-to-face format and fully online format. (Formerly 1100:117)

**GNST:150 Resident Assistant Skills (2 Credits)**

This course is designated for Resident Assistants upon their hire to the Department of Residence Life and Housing. Leadership development and management skills are the core material. (Formerly 1100:150)

**GNST:191 Special Topic: General Education (1-4 Credits)**

Special Topics in General Education. (Formerly 1100:191)

**GNST:205 Leadership Principles and Practices (2 Credits)**

This course is about being a leader and about leadership. Students will learn leadership principles through case studies and self-assessment with a goal of developing effective leadership skills and abilities. Students complete the course better prepared to lead across a broad spectrum of responsibilities by possessing and communicating an organized perspective of leadership. (Formerly 1100:205)

## Women's Studies (WMST)

**WMST:100 Social & Cultural Diversity in the United States (3 Credits)**

See department for course description. (Formerly 3001:100)

**WMST:110 Multicultural Sensitivity Training (1 Credit)**

See department for course description. (Formerly 3001:110)

**WMST:200 Introduction to Women's Studies (3 Credits)**

Introduction to the interdisciplinary program in Women's Studies. Explores current scholarship in women's issues and experiences from perspectives of psychology, history, sociology, anthropology, and literary criticism. Feminist orientation and methodology. (Formerly 3001:200)

**Gen Ed:** - Domestic Diversity

**WMST:480 Feminist Theory (3 Credits)**

Prerequisite: WMST 200. A summary of feminist theory to familiarize students with the main currents in contemporary feminist theory and the origins and evolution of that thought. (Formerly 3001:480)

**WMST:485 Special Topics in Women's Studies (1-3 Credits)**

Special topics and current issues in Women's Studies. Covers content not currently addressed in other courses. Fosters a critical approach to knowledge about women. (May not be repeated) (Formerly 3001:485)

**WMST:489 Internship in Women's Studies (1-4 Credits)**

Prerequisites: WMST 200 and permission of Director of Women's Studies. This class provides supervised experience and on-the-job training in an organization, agency, corporation or group dealing with women's issues. (Formerly 3001:489)

**WMST:490 Women's Studies Lecture Series (1-3 Credits)**

Various topics focused on women. Themes and course materials vary each semester. Lecture and discussion. (Formerly 3001:490)

**WMST:493 Individual Studies on Women (1-3 Credits)**

Prerequisites: WMST 200 and permission of Director of Women's Studies. Directed study of selected topics related to women. Projects are chosen by student in consultation with instructor. (Formerly 3001:493)

**WMST:499 Seminar in Women's Studies (1 Credit)**

See department for course description. (Formerly 3001:499)

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