



Department of Theoretical and Applied Mathematics

Requirements for the 5-yr BS/MS Degree with a Major in Applied Mathematics



STUDENT NAME: _____

STUDENT ID#: _____

Undergraduate Level Course Requirements

At least 40 credit hours in the department including:

3450:221	Analytic Geometry-Calculus I	4.0 _____
3450:222	Analytic Geometry-Calculus II	4.0 _____
3450:223	Analytic Geometry-Calculus III	4.0 _____
3450:312	Linear Algebra	3.0 _____
3450:335	Introduction to Ordinary Differential Equations	3.0 _____
*3460:209	Introduction to Computer Science	4.0 _____
3450:421	Advanced Calculus I	3.0 _____
3450:522	Advanced Calculus II ***	3.0 _____
3450:427	Applied Numerical Methods I	3.0 _____
3450:428	Applied Numerical Methods II	3.0 _____
3450:436	Mathematical Models	3.0 _____
3450:539	Advanced Engineering Mathematics II ***	3.0 _____
3470:461	Applied Statistics I	4.0 _____

Undergraduate Electives

Fifteen hours of 300/400 level electives of which at least six-credits are at the 300/400 level in some approved applied area such as Chemistry, Computer Science, Physics, Economics, Engineering, etc.

_____ 3.0 _____
 _____ 3.0 _____

**Other electives (Some of these courses are possibly graduate level courses to be applied toward the elective requirement of the bachelor's degree.):

_____ 3.0 _____
 _____ 3.0 _____
 _____ 3.0 _____

Foreign Language: _____ 101 _____ 102 _____
 _____ 201 _____ 202 _____

Sign Language: _____ 222 _____

Foreign Language has four specific courses and Sign Language has five specific courses. Both options total 14 credits for the language requirement.

General Education Requirements: www.uakron.edu/academics_majors/ub/general-education

March 15, 2018-blue

NOTES:

1. The courses 3450:100, 140, 135, 145, 149, and 401 do not meet major requirements.
2. The student is required to take 40 hours of 300/400 level courses not including general education courses and workshops.
3. The student must achieve an overall GPA of 2.0 for all courses taken and a 2.0 GPA for courses in the major in order to graduate.
4. This program of study and the general education evaluation are effective for 5 years from date of signature. If there is a change in a major or a transfer to another college, a new program of study must be drawn up. A minimum of 120 earned, approved semester credit hours are needed for graduation.

***This course will count towards the requirement of 40 credits of 300/400 level courses.**

****Subject to approval by the Dean, up to six credits of courses prerequisite to those taken At the 300/400 level will count towards the 40-hour requirement in Note 2. These approved courses count as 300/400 level electives.**

Graduate Level Course Requirements

3450:621	Real Analysis	3.0 _____
3450:627	Advanced Numerical Analysis I	3.0 _____
3450:633	Methods of Applied Mathematics I	3.0 _____
3450:692	Seminar in Mathematics	3.0 _____
3450:699	Masters Thesis	3.0 _____

Group 1. At least one course from this list must be taken:
 3450:625 Analytic Function Theory 3.0 _____
 3450:628 Advanced Numerical Analysis II 3.0 _____
 3450:632 Advanced Partial Differential Equations 3.0 _____

Group 2. At least two courses from this list must be taken:
 3450:634 Methods of Applied Mathematics II 3.0 _____
 3450:635 Optimization 3.0 _____
 3450:730 Advanced Numerical Solution of Partial Differential Equations 3.0 _____

Courses marked with * are to be applied to the requirements of both the bachelor's and master's degree.**

 Advisor's Signature Date

 Student's Signature Date

 Department Chair's Signature Date

COMMENTS _____

 Copies to: Dean
 Student

The University of Akron

General Education Requirement

- | | |
|---|---|
| <p>1. English Composition (7 credits)</p> <p>3300:111 _____ __cr.____</p> <p>3300:112 _____ __cr.____</p> | <p>6. Social Sciences (6 credits)
(Courses selected from two different sets)</p> <p>Economics _____ __cr.____</p> <p>Geography _____ __cr.____</p> <p>US Govt/Politics _____ __cr.____</p> <p>Psychology _____ __cr.____</p> <p>Sociology/Anthropology _____ __cr.____</p> <p>United States History _____ __cr.____</p> <p>Social Science/Technology _____ __cr.____
/Society</p> |
| <p>2. Mathematics (3 credits)</p> <p>3450: _____ __cr.____
or
3470: _____ __cr.____</p> | <p>7. Humanities (10 credits – 3 courses)</p> <p>3400:210 _____ __cr.____
and
2 courses selected from two different departments</p> <p>Fine Arts _____ __cr.____
or
Philosophy/Classics _____ __cr.____
or
Literature _____ __cr.____
or
3400:211 _____ __cr.____</p> |
| <p>3. Natural Science (8 credits)
(Minimum of 2 courses, one of which has a lab component,
selected from two different departments)</p> <p>Biology _____ __cr.____
or
Chemistry _____ __cr.____
or
Geology _____ __cr.____
or
Physics _____ __cr.____</p> | <p>8. Area Studies and Diversity (4 credits – 2 courses)</p> <p>_____ __cr.____</p> <p>_____ __cr.____</p> |
| <p>4. Oral Communication (3 credits)</p> <p>7600:105 _____ __cr.____
or
7600:106 _____ __cr.____</p> | <p>5. Physical Education/Wellness (1 credit)</p> <p>5540: _____ __cr.____</p> <p>5540: _____ __cr.____</p> |