

<b>The University of Akron</b> <b>G. W. Daverio School of Accountancy</b>		
<b>6200:250</b>	<b>◆</b> <b>◆</b>	<b>Spreadsheet Modeling &amp; Decision Analysis</b> <b>Course Syllabus</b>
	<b>Fall 2021</b>	



### **Class Meeting Times and Locations**

6200:250:001 TTh 9:15-10:30AM CBA 101

6200:250:002 TTh 10:45-12:00PM CBA 101

6200:250:010 TTH 2:00-3:15PM Polsky 550M

Note: This class meets in a computer lab regularly. Lectures are not recorded. Each case study will feature discussion and demonstration led by the instructor. Due to classroom resource constraints, students should plan attend only the section for which they have registered.

### **Instructor Information**

Professor: Mark Welfley, MBA  
Office Phone: CBA 261 / (330) 972-6901  
E-mail Address: mmw20@uakron.edu  
Office Hours: TTh: 3:15-4:00PM,, by appointment

### **CBA Learning Goals and Expectations**

Each student who graduates from the College of Business Administration will:

- Master integrated business knowledge
- Analyze data using quantitative techniques
- Be informed decision makers
- Develop leadership and collaboration competencies
- Use writing and oral communication skills to persuade and to mobilize action
- Demonstrate a global perspective and cross-cultural awareness
- Recognize and understand how to address ethical concerns

### **Mission of the Daverio School of Accountancy**

The George W. Daverio School of Accountancy at The University of Akron provides students with the educational background to become competent and responsible accounting professionals. With a rich history of (i) accounting education that serves both traditional and non-traditional students and (ii) close relationships with the professional community in Northern Ohio, we emphasize undergraduate and master's-level education with an applied focus. The School offers a Bachelor of Science degree in Accountancy, a Master of Science in Accountancy, and a Master of Taxation.

The School stresses a learning environment that places primary importance on student success through effective teaching, complemented by faculty scholarship, interaction with the professional community, and service. Success in accomplishing our mission is evidenced by graduates who will:

1. Demonstrate knowledge, understanding, and ability to apply core accounting fundamentals in such areas as financial reporting, cost management, auditing, tax, and systems.
2. Have effective written and oral communication skills as applied to business and accounting.
3. Demonstrate ability to contribute to problem-solving and decision-making through professional research, analysis of complex data, integration of information from multiple sources, use of information technology, and creative thinking.
4. Understand professional responsibilities and methods for identifying and addressing ethical dilemmas in business and accounting.
5. Work effectively in teams and in diverse settings that include individuals with varying educational background, experience, gender, age, race, or national origin.

To be responsive to the professional community that we serve, we endeavor to graduate well educated students who are prepared to contribute in an increasingly complex and diverse economy. To achieve this end, we seek to attract and retain high quality faculty and staff, and emphasize scholarship that contributes to practice and to teaching.

## Course Description and Objectives

Prerequisite: Computer proficiency. In-depth study of spreadsheet applications and databases to support decision-making and problem-solving in business and accounting.

**Objective:** This course provides students with knowledge and skills to apply electronic spreadsheets and databases to support decision-making and problem-solving in business and accounting. Instructors make extensive use of MS Excel. MS Access is used for working with large datasets. The course is built around various business and accounting decision problems. Emphasis is on the application of information technology rather than the detailed aspects of the decision problem. It is assumed that students have some familiarity with electronic spreadsheets; thus instructors will not be discussing typing, basic arithmetic operations (addition, subtraction, division, etc.), text versus numbers, basic formulae, and other simple aspects of an electronic spreadsheet that students should know.

- After completing this course, students will:
- Have extensive knowledge and skills to apply electronic spreadsheets in business decision-making and problem-solving.
- Understand and be able to apply in business and accounting selected intermediate and advanced features of electronic spreadsheets.
- Have the ability and skills to work with large data sets and integrate data from different tables and sources.
- Understand fundamental risks associated with using spreadsheets and be able to take basic precautions to address them.

- Understand the need for relational databases and use selected features of a relationship database to enhance the capabilities of your spreadsheet even more.

## Required Text and Supplies

### Required Material:

- University of Akron student microcomputer account for operating system, application software, e-mail, and Internet access.

### Optional Material:

- USB Flash Drive for coursework
- Exploring Microsoft Office Excel 2019 Comprehensive - by Maryanne Potsy
- Virtual Machines. You may remote in to use a University of Akron “virtual” computer using the following procedure:
  - Type in [labs.uakron.edu](https://labs.uakron.edu)
  - Click on the VMware Horizon HTML Access
  - Type your university of akron email address and password
  - Click on Statistics 2019-2020 button
  - You will be taken to a desktop with Access and Excel.
  - If you are going to use the above approach, please try before class starts. You will still need to webex into our class...then use this remote access to get to a University computer.

## Course Format / Expectations

**Course Format / Effort Expectations:** The course is designed to implement the CBA’s “Problem Solving-Based Learning” initiative. It will consist of a combination of lectures, computer-based learning tools and a significant focus on using the tools to solve “real world” problems. These methods are complementary and not substitutes: students must work with all resources to master the material; thus, to perform well in this course, students must attend class regularly, work on their own outside of class, organize and schedule their work, and complete assignments accurately and on time. Students are responsible for reading the material and attempting the exercises prior to each lecture and should budget sufficient time outside of class to meet this responsibility.

**Computing Skills Required:** Students must exhibit basic microcomputer and keyboard proficiency skills to succeed in this course; it is the student’s responsibility to attain this proficiency before enrolling.

**Suitable -- Professional Development:** Participation in professional development activities is an important part of student development. Students must not only learn the technical side of software for decision making, but also develop the soft skills to be successful. Therefore, professional development is a course component. Student’s must earn 30 professional development points. To earn points students must utilize the Suitable app. Specific instructions regarding the Suitable app are provided below. Only activities loaded in our course badge qualify for these points. **To count for credit in this course, the student must earn the points in the Suitable app by 11:59pm Friday, December 3rd.**

Instructions for accessing the Suitable app:

Mobile access

Step 1: Search “Suitable” in your app store and download the Suitable app

Step 2: Use your UserID@zip.s.akron.edu email to log-in

Step 3: Press continue and log-in using your UANet ID and password.

Step 4: You must give Suitable app access to your camera to scan event codes

### Ethics in this Course

Ethics are incorporated into the course through class discussion and written question asked in case studies. One class period is devoted entirely to a hands-on exercise placing students in a position to make an ethical choice with consequences. This class concludes with a debriefing.

### Academic Honesty and Student Conduct

It is every student’s responsibility to understand and follow all policies set forth by the University of Akron, the College of Business Administration, and the School of Accountancy related to student conduct. If you are in doubt, do not assume anything. Read the syllabus carefully, check the web sites below, and/or talk to your instructor. **Ignorance of these policies is NOT a defense for violations.**

<https://www.uakron.edu/soc/documents/policies/Academic%20Dishonesty.pdf>

<https://www.uakron.edu/oaa/faculty-affairs/What-students-need-to-know>

Examples of academic dishonesty include, but are not limited to:

- Copying another student’s working papers, printed output, or electronic files for a case study, quiz, or final examination.
- Allowing another student to copy your working papers, printed output, or electronic files for a case study, quiz, or final examination.
- Allowing another student to complete your working papers, printed output, or electronic files for a case study, quiz, or final examination.
- Completing another student’s working papers, printed output, or electronic files for a case study, quiz, or final examination.

If a student is caught in academic dishonesty (i.e., cheating) in this course, the instructor will impose a variety of sanctions. Examples of sanctions include the following:

- 0 points for the case study/quiz/final examination involved.
- A penalty of 70 points deducted from the total number of points available for the course.
- Grade F for the course.
- Refer the student to the School of Accountancy, College of Business Administration, and University administration for disciplinary hearing.
- Any combination of the sanctions above.

### Course Grading

Successful learning in this course is demonstrated by frequent “hands-on” application of the concepts and techniques discussed during the lecture. Several methods are used to evaluate learning:

- **Quizzes:** Three in-class computer-based evaluations. The quizzes will be based on content covered in all course activities (*i.e.*, readings from the text, outside reading materials, discussion questions, lab activities, and course case studies). Quizzes must be taken in class and worth 30 points each.
- **Case Studies:** 11 exercises implementing several related topics. Case study 1 is a skill assessment.
- **Attendance:** Attendance will be taken each day at the beginning and end of each lecture. For each absence, 2 points will be deducted from the final point tally. You will not receive credit for attending class if attend the online class on the day your are expected to be on campus in class.
- **Professional Development:** You must participate in 30 points worth of Suitable activities.
- **Final Exam:** There is a final exam for this course worth 100 points.

Point allocation for these components of the course:

<b>Course Component</b>	<b>Points</b>
Scheduled Quizzes (3 @ 30 points each)	90
Case Studies (11 @ 30 points each)	330
Final (1 @ 100 points)	100
Attendance	30
Professional Development -- Suitable	30
<b>Total Points</b>	<b>580</b>

All case studies and the final examination must be submitted electronically via Brightspace. They are due by 10:00 pm on their scheduled due date. Late case studies will not be accepted; students with obligations that conflict with due dates are urged to plan in advance and budget sufficient time to complete their work on time. Similarly, make-up quizzes are not offered except in cases of conflicts with university-sanctioned activities, such as documented travel on university business.

Maximum percentage grading scale based on total points for the course (based on the University of Akron guidelines and rounded to nearest whole point):

Grade	Percentage	Grade	Percentage
A	92 to 100	C	72 to 77.9
A-	90 to 91.9	C-	70 to 71.9
B+	88 to 89.9	D+	68 to 69.9
B	82 to 87.9	D	62 to 67.9
B-	80 to 81.9	D-	60 to 61.9
C+	78 to 79.9	F	Below 60 %

### Student Responsibilities

A student's investment in higher education represents a significant commitment of time, resources and energy. Learning is not a passive activity – while the faculty at the CBA are committed to creating an effective learning environment, students should understand and honor their responsibilities to learning in order to achieve the most valuable outcomes. These responsibilities include:

- **Attendance:** Students should expect to attend every class. While emergencies are sometimes unavoidable, students will not be able to maximize the learning value of their investment without attending class. In addition, point penalties are assessed for missing class.
- **Professional Ethics:** Ethical professional conduct is an essential element for success in business and management. Students are expected to conduct themselves with professionalism at all times. Examples of professional conduct include arriving to class on time or early, listening and participating in discussions, and not disrupting others.
- **Do Not Use Cell Phones, Pagers, MP3 Players Instant Messaging, E-Mail or Web Browsing During Class.** Students are asked to refrain from using the aforementioned technologies during lecture. In addition to reducing the student's attention and compromising their learning, these technologies can create a significant distraction for other members of the class. Students observed ignoring this policy will be asked to stop.
- **Preparation:** In order to maximize their learning, potential, students are expected to read textbook material and relevant case studies before class in order to discuss them effectively.
- **Meet Deadlines:** Students are expected to turn in their work on time; late submissions are not accepted.
- **Effective Management of Personal Technology:** The availability of resources such as the Internet, student personal computers, lab hardware, e-mail, and other tools necessary to complete case studies may be unavailable without warning due to circumstances beyond the student's or instructor's control. Students are advised to take appropriate precautions (such as allowing

sufficient time to complete case studies, making regular backups of work files) to ensure that they can successfully meet their responsibilities in the course.

- **Mask Policy:** To protect the health and safety of the community, students, faculty, staff and visitors must wear face coverings that cover their mouth, nose, and chin while on campus in all hallways, public spaces, classrooms and other common areas of campus buildings, and when in offices or other work spaces or outdoor settings (when 6-foot social distancing cannot be maintained). Students needing accommodations may contact the Office of Accessibility.

Faculty have the right to deny a student entry into the room if the student is not wearing a face covering. Students not wearing a face covering will be reminded to do so and offered a clean face covering, if one is available. If the student does not comply, the faculty member will ask the student to leave the space, and if available, join the class remotely. As a last resort, campus police will be called. The faculty member will submit a student conduct referral form to the Office of Student Conduct. The Office of Student Conduct will address the student's non-compliance with the faculty member's request to wear a face covering or leave the classroom. Student's that fail to follow this policy will be subject to progressive discipline that may result in the student's removal from the in-person course

### Other Administrative Matters

**Photo ID during Exams:** During examinations, students may be asked to display their University of Akron photo ID by placing then on their desks.

**Withdrawals:** A student who chooses to withdraw from this course must comply with university procedures and complete the process by the university deadline; otherwise the student will receive a score that reflects his/her accumulated points.

**Students with Disabilities:** Students who believe that they require special accommodations as a result of a disability are urged to contact the Office of Accessibility (330-972-7928) to make appropriate arrangements.

**Taking an Incomplete for the Class:** If you need to take an incomplete for the class, please notify your instructor. It is your responsibility to know the University policy.

### Course Schedule and Course Work

Date	Tool Used	Detailed Topical Area	Course Work and Due Dates
8/24		Attendance/Brightspace/Syllabus/Mask Policy	
8/26	Excel	<b>Module 1: Introduction to Spreadsheet Modeling</b> • Formulas	
8/31	Excel	<b>Module 1: Introduction to Spreadsheet Modeling (continued)</b> • Formatting/Printing	
9/2	Excel	<b>Module 1: Introduction to Spreadsheet Modeling (continued)</b> • Functions/Linking/Named Ranges	Case Study 1

9/7	Excel	<b>Module 2: Applications in Marketing and Sales</b> Case Study 2: New Product Decision Making  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Relative/absolute cell references</li> <li>• Named ranges</li> <li>• Advanced formulas</li> <li>• LookUp Tables</li> <li>• Linking disparate workbooks</li> <li>• Dynamic linking</li> <li>• Updating links</li> <li>• Data Validation</li> </ul>	
9/9	Excel	Case Study 2: New Product Decision Making (continued)	
9/14	Excel	Case Study 2: New Product Decision Making (continued)	
9/16	Excel		Quiz 1
9/21	Excel	<b>Module 3: Applications in Economics and Data Analytics</b> Case Study 3: Data Analytics  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Defining, computing &amp; applying measures of central tendency/dispersion (mean, median, mode and standard deviation)</li> <li>• Populations vs. Samples</li> <li>• Conditional Formatting</li> <li>• Filtering</li> <li>• Sorting</li> <li>• Subtotals</li> <li>• Complex Pivot Tables</li> </ul>	Case Study 2
9/23	Excel	Case Study 3: Data Analytics (continued)	
9/28	Excel	Case Study 3: Data Analytics (continued)	
9/30	Excel	<b>Module 4: Applications in Supply Chain Management</b> Case Study 4: Warehousing and Distribution Decision Making  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Solver</li> <li>• Advanced formulas including EOQ</li> </ul>	Case Study 3



10/5	Excel	<b>Module 5: Applications in Finance and Stock Portfolio Investing</b> Case Study 5: Investment Portfolio Analysis  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Advanced formulae</li> <li>• Charting</li> <li>• Grouping data</li> <li>• Scenarios/What-if Analysis</li> <li>• Data Tables/Break Even Analysis</li> </ul>	Case Study 4
10/7	Excel	Case Study 5: Investment Portfolio Analysis (continued)	
10/12	Excel		Quiz 2
10/14	Excel	<b>Module 6: Applications in Individual Finance</b> Case Study 6: Loan Analysis  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Advanced Formulae</li> <li>• Functions including IF</li> <li>• Goal Seek</li> </ul>	Case Study 5
10/19	Excel	Case Study 6: Loan Analysis (continued)	
10/21	Excel	<b>Module 7: Applications in Corporate Accounting and Finance</b> Case Study 7: Depreciation and Bond Schedule Analysis  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Depreciation and IRR Functions</li> </ul>	Case Study 6
10/26	Access	Case Study 7: Depreciation and Bond Schedule Analysis (continued)	
10/28	Access	<b>Module 8: Applications in Auditing</b> Case Study 8: Income Tax Analysis  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Advanced Formulas</li> <li>• Lookup Tables</li> <li>• Data Tables</li> <li>• Goal Seek</li> <li>• Macros</li> </ul>	Case Study 7

11/2	Access	<b>Module 9: Applications in Human Resources</b> Case Study 9: Payroll Analysis  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Working with large datasets</li> <li>• Lookup Tables</li> <li>• Multiple worksheets linking</li> <li>• Advanced formulas</li> <li>• Pivot Tables and Pivot Charts</li> </ul>	Case Study 8
11/4		<b>Module 10: Applications in Marketing, Manufacturing and Data Analytics</b> Case Study 10: Conduct Benchmark Comparisons  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Linking disparate datasets</li> <li>• Lookup Tables</li> <li>• Advanced formulas</li> <li>• Pivot Tables and Pivot Charts</li> </ul>	Case Study 9
11/9	Access	Case Study 10: Conduct Benchmark Comparisons (continued)	
11/11	Access	<b>Module 11: Applications in Data Analytics using Queries in a Relational Database</b> Case Study 11: Database Analysis  <b>Techniques Covered:</b> <ul style="list-style-type: none"> <li>• Tables and Relational databases</li> <li>• Excel vs. a relational database</li> </ul>	Case Study 10
11/16	Access	Case Study 11: Database Analysis (continued)	
11/18	Access	Case Study 11: Database Analysis (continued)	
11/23			Quiz 3
11/25		No School -- Thanksgiving	
11/30	Access	Case Study 11: Database Analysis (continued)	
12/2	Excel	Extra Credit	Case Study 11
12/6-12/10		Final Exam Week	