

University of Michigan-Dearborn Syllabus



ITM 382, Advanced Computer Applications, 3 credits

Professor Edward Williams

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Office Hours: 4:30pm-5:30pm Mondays and Thursdays, and by appointment

Course Meeting Times and Format(s): 6:00pm – 8:45pm Thursdays, 191 FCS

Course Description:

This is an advanced course in computer applications, decision modeling, and business problem-solving. Topics will include Visual Basic for Applications (VBA), pivot tables, user interfaces, and application manipulation techniques for both spreadsheet and database applications. Complex formulae will be introduced to enable students to create sophisticated models for solving nested and complex business problems.

Program Goals:

The BBA Program Goals and Objectives may be found at umdearborn.edu/cob/bba-goals-and-objectives.

This course contributes extensively toward several of these learning objectives, as follows:

- a. It will expand your knowledge of information systems and their capabilities (objective #1).
- b. It will improve your communication skills, particularly orally (your homework presentation and project presentation) (objective #2).
- c. It will improve your interpersonal and teamwork skills because you will be working in teams on homework assignments and the project (objective #3).
- d. It will hone your ability to use and critically evaluate electronic information (portions of objective #4).
- e. It will increase both your ability and your skill set for solving business quantitative problems (objective #7).

Dearborn Discovery Core Goals:

The Dearborn Discovery Core Goals may be found at <http://umdearborn.edu/696973>.

Course Objectives:

- Become an advanced user (often called a power user) of Microsoft Excel®.
- Understand the processes for creating and modifying workbooks and worksheets.
- Be able to utilize appropriate formulae and functions to manipulate, organize, and present data.
- Be able to solve business problems through the functionality of Microsoft Excel®.
- Be able to analyze business decisions through the functionality of Microsoft Excel®.
- Be able to present output appropriately as lists, tables, and charts.

Required Materials and/or Technology:

1. *Microsoft® Office Excel® 2013 Inside Out* by Mark Dodge and Craig Stinson, ISBN-10: 0735669058, ISBN-13: 978-0735669055
2. Handouts/files posted on the course website.
3. *VBA for Modelers: Developing Decision Support Systems with Microsoft® Office Excel®, 4th edition*, S. Christian Albright, South-Western, ISBN 978-1-133-19089-9

Course Structure:

The course consists of five major components:

1. Readings and Demonstrations. The book for this course is meant to be more of a reference or a primer than a full-blown textbook. This means that it is that much more important to have read the necessary chapters (as indicated on the Course Schedule) before class. Rarely will I walk through or complete the examples from the book. I will be demonstrating the concepts with new examples, explanations, and material. If you are not ready to learn from my demonstrations of the concepts, you will be lost and you will end up having to read the material and learn it on your own. I don't recommend this approach!
2. Homework. There will be five homework assignments throughout the course (as indicated on the explanation of grade determination). The main purpose of the homework assignments is to provide you with practice of the concepts covered in class. Homework can be a great tool for learning. The homework assignments are to be done in self-selected teams (preferred team size 3 or 4). Teams should be formed by the end of the second class session. When a team is formed, one team member shall email me the list of team members; I will then define the team in Canvas for convenience of assignment submission. As you can see from their point value, the homework assignments count for $\frac{1}{4}$ of your entire grade.
3. Project. Each team will be responsible for completing a comprehensive project. This project is due near the end of the semester, before the second examination. The project should incorporate most of the concepts that have been covered in the course, but it is up to you, jointly with your chosen client, to figure out how to do so.

Each team will create a team project, to be based on your own needs (e.g., the workplace of one or more team members, the personal or family business of one or more team members, etc.). The project deliverables are:

On September 18:

a one-page MS Word® document describing your project plan
This document will not be graded.

On December 3:

the Excel® workbook containing your project, plus a
PowerPoint® presentation thereof

Each team will present its work orally to your classmates and me using the Excel® workbook and the PowerPoint® file. You will also upload both files to Canvas as assignment deliverables.

This is neither an easy nor a simple project. It is deliberately (with the objective of eventual workplace acclimatization) very open-ended, and without specific rubric. Conceptually, your client (the business on behalf of which you develop your work) will implicitly specify the rubric. You should begin thinking about this project promptly. As we go through the course content, continue to think about your project and incorporate what you've learned into the project. You will not be able to start this project late in this semester and complete it by the deadline for a satisfactory grade. Grammatical and spelling correctness within both of these deliverables is highly important, and I will grade them accordingly.

4. Project Presentation. On December 3, each team will present its project to the class, as indicated above. You will have approximately 15-20 minutes for your presentation. During the presentation, you should walk us through the application. You should show us its basic functionality and you should discuss any unique or particularly special ways that you accomplished your goals.

5. Examinations, as scheduled below.

Assignment and Grading Distribution:

Homework (5 Total @ 5% each)	25%
End-of-Semester Project	30%
Project Presentation	10%
Participation (discussions, questions, comments, etc.)	5%
First examination (October 15)	15%
Second examination (December 10)	15%

Grading Scale:

94%- 100%	A	80%- 83%	B-	67%-69%	D+
90%- 93%	A-	77%-79%	C+	64%-66%	D
87%- 89%	B+	74%-76%	C	60%-63%	D
84%- 86%	B	70%-73%	C-		

Grade Grievance:

A student may grieve a final course grade or a grade on an examination, project, thesis or any other graded material required for graduation. This grievance process is intended to provide the student the protection against evaluations which are prejudicial, arbitrary, or capricious.

Examples of grading problems which can be grieved are:

- a. Clerical error
- b. Prejudicial evaluation
- c. Inconsistent or inequitably applied standards of evaluation

There is a presumption that the grades assigned are correct and therefore the student has the burden of proof in the grievance process (i.e. s/he must establish clerical error; capricious or prejudicial evaluation; or inconsistent or inequitably applied standards of evaluation). To start this process, the student should contact the Department Chair or Program Director before the end of the fifth week of classes in the first full term following the term in which the disputed grade was issued.

Tentative Course Outline:

Date	Activity and Content
Week 1	Excel® Functions and their Usage
Week 2	Data Validation
Week 3	Spreadsheet Formatting Techniques
Week 4	Optimization – Goal Seek and Excel® Solver
Week 5	Pivot Tables and Charts
Week 6	Test #1
Week 7	Excel® custom functions and macros
Week 8	Introduction to VBA [Visual Basic for Applications]
Weeks 9-10	VBA, continued
Week 11	Project preparation period
Week 12	Thanksgiving Recess
Week 13	Project presentations
Week 14	Test #2

University Attendance Policy:

A student is expected to attend every class and laboratory for which he or she has registered. Each instructor may make known to the student his or her policy with respect to absences in the course. It is the student's responsibility to be aware of this policy. The instructor makes the final decision to excuse or not to excuse an absence. An instructor is entitled to give a failing grade (E) for excessive absences or an Unofficial Drop (UE) for a student who stops attending class at some point during the semester.

Academic Integrity Policy:

The University of Michigan-Dearborn values academic honesty and integrity. Each student has a responsibility to understand, accept, and comply with the University's standards of academic conduct as set forth by the Code of Academic Conduct (<http://umdearborn.edu/697817/>), as well as policies established by each college. Cheating, collusion, misconduct, fabrication, and plagiarism are considered serious offenses and violations can result in penalties up to and including expulsion from the University.

Disability Statement:

The University will make reasonable accommodations for persons with documented disabilities. Students need to register with Disability Resource Services (DRS) every semester they are enrolled. DRS is located in Counseling & Support Services, 2157 UC (http://www.umd.umich.edu/cs_disability/). To be assured of having services when they are needed, students should register no later than the end of the add/drop deadline of each term. If you have a disability that necessitates an accommodation or adjustment to the academic requirements stated in this syllabus, you must register with DRS as described above and notify your professor.

Safety:

All students are strongly encouraged to register in the campus Emergency Alert System, for communications during an emergency. The following link includes information on registering as well as safety and emergency procedures information: <http://umemergencyalert.umd.umich.edu/> Finally, all students are also encouraged to program 911 and UM-Dearborn's Public Safety phone number (313) 593-5333 into personal cell phones. In case of emergency, first dial 911 and then if the situation allows call UM-Dearborn Public Safety.

Additional Administrative Information:

Timeliness. If you expect full credit for any assignment, you will have to be prepared to turn it in at (or before) the beginning of the class period on the day it is due. Late work will not be accepted except in cases of severe and externally documented extenuating circumstances, and then only at my discretion. Examples of such circumstances are illness, bereavement, jury duty,

witness duty, and business travel. If you have obligations that conflict with assignment due dates, you should make arrangements with the instructor as soon as possible.

Score/Grade Appeals. It is important to recognize that a grade reflects another's judgment of your work. In this sense, all grading is subjective. Of course, any grade you receive is subject to appeal. However, score changes are at the discretion of the instructor and may be up or down based upon a complete review of the work in question. Changing a few points on an assignment rarely makes a difference in the final grade. Time is much better spent discussing and clarifying the content presented in the course.

Electronic Communication Devices in the Classroom. All electronic devices (cellular phones, pagers, etc.) should be turned off or set on "vibrate" prior to the beginning of each class session. Failure to do so will result in a disruption of the class. If such a device rings aloud during a class session, you might (I reserve discretion) lose one full letter grade from your final course grade. If you receive an emergency incoming call via *vibration*, please leave the classroom quietly and unobtrusively to answer it, and return to the classroom likewise. Please do your part to ensure that the class is not interrupted and that you do not lose any points in the course.

Email Accounts and Responsibilities. Each of you has received a UM-Dearborn email account. It is your responsibility to read any and all email messages sent to this account. I will be using your UM-D account for email communication regarding this course. This does not mean that you cannot have other email accounts - it means you are responsible for any information sent to your UM-D account. This could be accomplished by using this UM-D account on a regular basis (as some students do) or by forwarding all email sent to the UM-D account to another account of your choosing. This forwarding process is very simple.

To forward your email:

- Go to <http://directory.umd.umich.edu> and click the My Account button
- Enter your uniqueness and click the Continue button
- Enter your password and click the Continue button
- Click the Continue button again, if necessary
- Under the Mail section (on the left-hand side of the screen) click on Delivery Options
- Enter your other email address in the "Forward a copy of your messages to:" text box
- Click the Change button

The course Canvas website also contains an email function and an announcement. You are welcome to utilize this for communicating with each other and/or with me. You are responsible for all email sent by me to this internal, course account and to your UM-D account,

plus all announcements I make via Canvas.

Incomplete Grades Policy. A grade of Incomplete may be awarded to students who have a legitimate reason for needing additional time to complete a course. Legitimate reasons include emergencies or extenuating circumstances that prevent a student from completing the course requirements within the normal time frame, such as illness, accident, or bereavement. Students must initiate the request for an incomplete prior to the end of the semester. In no case will a grade of incomplete be awarded to someone seeking more time to master the course material in order to improve their grade (this prohibition is university policy, not mine).

Drop and Add. The final day to drop any College of Business course is specified each semester in the Schedule of Classes. This policy applies to all students enrolled in any College of Business course. Check the information contained in the Schedule of Classes or the Undergraduate Announcement for the detailed withdrawal policy if you have any questions.

You are expected to abide by all aspects of the Statement of Student Rights and Code of Conduct in this course. The two basic tenets of this Code are:

1. Students will behave honorably, ethically, and responsibly in all academic matters both inside the classroom and in outside work related to their courses.
2. Students who are aware of academic misconduct in any form will report the violation to the instructor or other school representative. Students who are aware of academic misconduct and who fail to report the violation are themselves guilty of academic misconduct.

It is assumed that you have a copy and have read and understand this code. Further, you are expected, especially as information systems professionals in training, to respect campus computer resources and to use them productively and wisely.

Travel Plans. Advance purchase of airline tickets, hotel reservations, etc. for holiday or leisure travel is an inadequate excuse to miss examinations or other course deliverables. Travel required for work (business troubleshooting, visiting a business branch or client, or attending a technical conference), when documented by a letter from your boss on corporate letterhead, will be considered an extenuating circumstance.

Campus Closure (Severe Weather) Information Line. 313-436-9157. In case of a University closure due to weather or other conditions, check your email for announcements and an updated course schedule.

This syllabus is largely based upon, and almost entirely the intellectual property of, Professor Lee Freeman, who recently designed and “pioneered” this course – in large measure by careful listening to corporate answers to the question “How can UM-Dearborn students be made more competitive in the jobs marketplace?”. His permission (and indeed, encouragement) to use and adapt it is gratefully acknowledged.