



Lab sessions are arranged on Tuesday from 5:45pm – 7:00pm after the lecture sessions. The objective is to provide students with hand-on instructions and exercises on the development of DSS applications using Microsoft Excel and Visual Basic programming language, which is required by the course project.

Lecture slides will be posted on blackboard by Friday in prior week to give students sufficient time to prepare the class. It is very important to read the assigned chapters before attending class.

## Course Grading

Evaluation of student performance will be based on the following items with the corresponding weights:

Items	Percentage	Percentage Breakdown
Exams	60%	
Exam #1		20%
Exam #2		20%
Exam #3		20%
Course Project	30%	
Project proposal/DSS model		5%
Final project presentation		10%
Final project report		15%
Lab Assignments	10%	
Total	100%	

It is important to understand that the grade reflects academic achievement and not effort.

### 1. Exams:

There will be three exams to supplement and reinforce your learning. All three exams will be taken during normal class meeting times (4:30pm – 5:45pm). The exams are NOT cumulative. Exam questions may consist of true/false, multiple-choice, and essay questions. If you miss an exam, you will receive a zero grade. However, if there is an unavoidable conflict in advance, please communicate to the instructor. Proof of evidence is needed in this case. Make-up exams will not be allowed without prior permission.

### 2. Course Project:

Students will work in self-selected groups of 2~3 members to complete a team project using VBA and Excel. The goal is to design and implement a small-scale decision support system to support a real life decision making situation.

**Deliverables:** There will be several deliverables for the project. All deliverables should look professional (i.e., well written, free of typos, and logically organized) and should be typed using **12 point Times New Roman font, one inch margins, and 1.5 line spacing**. Below is the timeline.

- March 11 (**Project Proposal**): Each team should submit **TWO** different candidate proposals for the DSS project, consisting of the following information.

- A cover page with tentative project title and the list of group members.
- A brief description for each proposed topic. You are expected to explain why this topic is important and is worthwhile to be investigated. What are the expected system input and output of your DSS.
- You may specify your preference between the two proposals. The instructor will review both proposals and suggest the more suitable one for the course project.
- **Deliverable:** One cover page and two pages description of each topic.
- April 15 (**DSS Models**): Develop your preliminary DSS model(s) using Microsoft Excel.
  - All DSS have at least a decision model. Such models may be mathematical models such as linear programming models, expected utility models, or heuristic models that will be discussed in class. These models may also be based on qualitative judgment and can be coded as rules. For example, "If average GPA is greater than 3.0 then enroll the student into IS425".
  - To ensure that the model is working correctly, you may create a preliminary database in excel. Your model must be able to pull data from this database and run the model to suggest a solution. Alternatively, you might want to create a model that prompts the user for some inputs and makes suggestions based on the inputs.
  - **Deliverable:** 1) A 3-4 pages description of the decision models that represents the problem and data; 2) Printouts of the worksheet areas and cell contents and other supporting documents.
- May 6: (**Final Project Presentation**): Each group will have approximately 20 minutes to present their DSS to the rest of the class. The presentation will be a part of the project grade. It is expected that the material is well organized and presented. The goal of the presentation is to share your work and reflect the knowledge you acquired concerning decision-making and DSS development.
  - It is expected that you will use effective visual aids in your presentation. A notebook computer and data projector will be provided to support PowerPoint presentations. Slides should distill the most important aspects in your report. Allocate roles among team members evenly. All team members must contribute to and participate in the presentation.
  - It is important that you meet the 20 minutes timing target (not measurably over or under). You are expected to have about 15 minutes for your presentation, followed by about 5 minutes of questions and answers from the audience.
  - **Evaluation:** Every student who attends the presentation is required to submit a peer evaluation sheet for OTHER project teams for their presentation quality. Each student has equal vote for the team project presentation evaluation. An evaluation form will be distributed in class on the presentation day. The evaluation should be returned to the instructor immediately after the presentation.
- May 20 (**Final Project Report**): You will be completing all the work done in this project and will be putting together a report.

- **Deliverable:** 1) A complete and workable DSS built in Excel and VBA; 2) A system documentation that provides the problem definition, the system model, the design, implementation and evaluation. This also includes the technical background of the system such as the hardware and software platform and any supporting documents that build the foundation of the system; 2) An easy-to-read user manual that supports the user to navigate and maneuver through the system. This also includes any technical troubleshooting guidelines.
- **Evaluation:** Every team member is required to submit a peer evaluation sheet for YOUR project team to the instructor by May 20. The Peer Evaluation sheet is confidential and can only be reviewed by the instructor. You will evaluate all team members' contribution to the project, including yourself. The average score from an individual's team members will be used to calculate the individual's weight. An individual's grade will be the team project's score weighted by the individual's peer weight.

### General Suggestions to the Course Project

- **Group and Individual Contribution:** Remember that you will be working in groups and peer evaluation will be used at the end of the semester to evaluate individual performance. Therefore, results of peer evaluations will have an impact on individual grades. If there are group issues that arise, please address them as early as possible. I do not take group incompatibility as an excuse for poor performance at the end of the semester.
- **Organizing the Project:** It is very important that you plan your progress on the course project well in advance. Since there will be several opportunities for feedback as the project progresses, it is expected that any suggestions and improvements identified by the instructor will be considered seriously and be incorporated into the next phase of the project development. It is the group's responsibility to discuss with the instructor about problems you encountered in the project.
- **Quality of Work:** All of your deliverables should be neatly typed and logically organized. In addition, quality will also be judged based on the following criteria:
  - Alignment with business problem: Does your system meet the decision support needs identified in your proposal?
  - Effectiveness: Does the system deliver indented analysis, give reliable recommendations, and present accurate results?
  - User friendliness: Is your system easy to learn and easy to use?
  - Robustness: Is your system robust enough to handle errors in use?

### 3. Lab Assignments

There will be 3 or 4 lab assignments throughout the semester. All assignments will be given to the students at the end of different lab sessions.

All assignments (including projects deliverables) submitted within 24 hours after a scheduled deadline will be assessed with 30% late penalty. After 24 hours, no deliverables will be accepted and the corresponding grade for that deliverable will be zero.

## Course Policy

**Communication:** The instructor will communicate with students using the student's official UMBC email address.

**Classroom Expectation:** To show courtesy to your classmates and the instructor, it is important that you come to class on time. Please notify the instructor for any anticipated absence due to religious holidays, or UMBC official extracurricular activity ahead of time.

**Audio/Visual Recording Policy:** Electronic recording of lectures is prohibited unless receiving prior approval from the instructor. Approval will be granted only for self-study purposes.

**Laptop Policy:** If you use a laptop in class, I expect you to put it in proper use - no email, IM, or games. If you break this rule, you can no longer bring your laptop to class.

## Academic Integrity

The university defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Since dishonesty harms the individual, all students, and the integrity of the university, policies on scholastic dishonesty will be strictly enforced. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory [or for graduate courses, the Graduate School website].

By teaching this course, I have agreed to observe all the faculty responsibilities described in the corresponding document. By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Scholastic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on an exam or other assignment, and submission of essentially the same written assignment for two different courses without the permission of faculty members. Any dishonesty that comes to my attention will result in an F in the course.

## Course Schedule

Below is a tentative schedule of lecture topics, readings, assignments, and other course related activities. The schedule will be adapted to our dynamic learning process in this course. Any changes will be posted on the blackboard. Please check the announcements on a regular basis.

Week	Date	Topics	Readings (Turban & Albright)	Assignments
1	1/29	Course overview	Course syllabus	
2	2/5	<b>Lecture:</b> Introduction to DSS <b>Lab:</b> Introduction to VBA in Excel (I)	T1, T2 A1, A2, A3, A4	
3	2/12	<b>Lecture:</b> DSS concepts, methodologies, and technologies <b>Lab:</b> Introduction to VBA in	T2, T3 A5, A6	

		Excel (II)		
4	2/19	<b>Lecture:</b> Decision models (I) <b>Lab:</b> Control logic, objects, and arrays	T4 A7, A8, A9	
5	2/26	<b>Lecture:</b> Decision models (II) <b>Lab:</b> Subroutines	T4 A10	
6	3/4	<b>Exam 1</b> <b>Lab:</b> User forms	A11	
7	3/11	<b>Lecture:</b> Decision models (III) <b>Lab:</b> Error handling	T4 A12	Project proposal due
8	3/18	Spring Break, No Class		
9	3/25	<b>Lecture:</b> Business intelligence (BI) and data warehousing <b>Lab:</b> Solver and other add-ins	T5, T6 A17	
10	4/1	<b>Lecture:</b> Data mining concepts and techniques <b>Lab:</b> Applications	T7 A18, A20, A21	
11	4/8	<b>Exam 2</b> <b>Lab:</b> Applications	A28, A34	
12	4/15	<b>Lecture:</b> Web-based DSS <b>Lab:</b> Work on project	T10, T14	DSS model due
13	4/22	<b>Lecture:</b> System development and acquisition <b>Lab:</b> Work on project	T15	
14	4/29	<b>Lecture:</b> Integration, impacts, and future of DSS <b>Lab:</b> Work on project	T16	
15	5/6	Project presentation		Project presentation
16	5/13	<b>Exam 3</b> Lab: optional		
17	5/20			Final project report due