Important Information:

Meets: Mondays and Wednesdays, 10-11:15am, in Math & Psychology Room 012
Professor: Dr. Carolyn Seaman
Office: ITE 404B
Phone: 410-455-3937
Email: cseaman@umbc.edu
Office hours: Tuesdays 10-12:30 and Wednesdays 2-4pm, and by appointment
Required text: Systems Analysis and Design by Kendall & Kendall, 9th edition, Pearson/Prentice Hall

Course Description

This course provides an overview of the Systems Development Life Cycle. Emphasis on current system documentation through the use of both classical and structured tools/techniques for describing process flows, data flows, data structures, file designs, input and output designs, and program specifications. We will discuss the information gathering and reporting activities and the transition from analysis to design. Other relevant topics covered include problem definition, feasibility analysis, and researching alternative solutions.

Blackboard site

A Blackboard site will be maintained for the course throughout the semester. The site will contain all **announcements** pertinent to the course, as well as all class materials, handouts, and assignments. You will also use the Blackboard site to submit most assignments. **Each student is responsible for checking the site regularly, and for being aware of any information posted there.** In particular, it is advised that you check the Blackboard site on the day before each class in order to download any handouts you will need during class, and any information about preparing for class.

Office Hours

Every student is strongly encouraged to make use of office hours. I am willing to go over anything you are having problems with, or to discuss any issues having to do with the course or the program. My official office hours are listed above, but I am also available by appointment, which means that you should call or email me before stopping by my office to make sure that I will be in if it's outside of the stated office hours. Please feel free to discuss things with me via email and phone as well. I check both numerous times each day and will respond promptly. I cannot guarantee that I will check my messages on the weekend, but I often do.

Grading

The University's Undergraduate Catalogue states that, "A, indicates superior achievement; B, good performance; C, adequate performance; D, minimal performance; F, failure". There is specifically no mention of any numerical scores associated with these letter grades. Consequently, there are no pre-defined numerical boundaries that determine final letter grades. These boundaries can only be defined at the end of the semester after all scores have been earned. At that point, numerical boundaries for final letter grades can be defined (usually using a "curve"). This means that it is not appropriate to assume that a

given numerical score corresponds to a particular letter grade. It is also important to understand that final letter grades reflect academic achievement and not effort.

While I am more than happy to correct mistakes in the computation of grades and grade recording errors, in all other situations final letter grades are not negotiable.

Your final course grade will be based on scores received on two exams, quizzes, in-class exercises and a systems proposal assignment, as follows:

- Exams – Midterm (20%) and Final (10%)
  There will be two exams, one occurring near the middle of the semester and one during the finals period (see the Schedule, below). Both will be in-class and closed-book. See Policies, below, for my rules about missing exams.

- Quizzes – 10%
  There will be a minimum of 5 quizzes during the course of the semester (probably more). The quizzes will be in-class, closed-book, and unannounced. Each quiz will be given at the beginning of the class session, and the topic of the quiz will be limited to what was covered in the assigned reading for that day. The objective of the quizzes is to motivate students to attend class, be prepared for class, and keep up with the assigned reading. I will drop each student's lowest quiz grade in calculating the final grade for the semester. See Policies, below, for my rules about missing quizzes.

- In-class exercises – 40%
  There will be 9 in-class exercises over the course of the semester (see the Schedule, below). Each exercise will involve the creation of some systems analysis artifact, related to a semester-long example case study. Students will work together in teams of 3 or 4 to create an artifact, review and critique another team's artifact, revise their artifact based on feedback, and present another team's artifact to the rest of the class (if time permits). I will drop each student's lowest exercise grade in calculating the final grade for the semester.

- Systems Proposal assignment – 20%
  You will be developing a systems proposal to address a problem of your choice for a client organization of your choice, along with a team of 3-4 other students in the class. More details about the systems proposal assignment will be provided later in the semester.

Policies

1. *Missing exams*
   In general, if you miss the exam, you will receive a grade of 0 for the exam. If you know that you will have to miss the exam in advance, come talk to me about it. **If** I am given sufficient notice, and I agree that your absence cannot be avoided, then I can arrange a makeup exam. If you miss an exam due to an unforeseen emergency, then we can arrange a makeup exam **if** I agree that your absence was due to a bona fide emergency and you can document that emergency to my satisfaction. In all cases, you should be warned that makeup exams are generally more difficult and more prone to errors and misunderstandings than the original exam, simply because I do not have the time to devote to writing a makeup exam as carefully as I do other exams.

2. *Missing quizzes*
   If you miss a quiz, you can make it up with a 50% penalty. That is, you will only get credit for half of whatever score you get on the quiz. The quiz must be made up as soon as possible after the class on which it was originally given, ideally the same day or at least before the next class. If too much time passes after the quiz was given in class before you request a make-up, I will not allow you to take the make-up and you will get a 0 for the quiz. If you arrive late to class, and a quiz is already in progress

when you arrive, you can begin the quiz when you arrive, but must turn it in at the same time as the rest of the class.

3. *Missing in-class exercises*
   Because of the nature of the in-class exercises, they cannot be made up if you miss class that day. Each exercise is worth 5 points, and you can make up 2 points of that if you turn in a first draft of the assignment before the next class session.

4. *Coming late to class*
   There is no specific penalty for coming late to class, except the potential to miss quizzes. However, nothing said or done in the first part of the class will be repeated for latecomers. If a student's late arrival to class is disruptive in any way, that student will be asked to leave the classroom.

5. *Academic Dishonesty*
   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, fabricating, plagiarism, and helping others to commit these acts are all forms of academic dishonesty and they are wrong. Academic misconduct could result in disciplinary action that may range from a grade of 0 on the relevant assignment or failure of the entire course, to suspension or dismissal from the program.

   In particular, for this course:
   - No cheating will be tolerated on the exam or on quizzes. Cheating includes gaining specific information about the quiz before taking it (e.g. in the case of a make-up), as well as consulting unauthorized materials during the quiz or exam.
   - Plagiarism (misrepresenting as your own work any part of the work performed by another person, including Internet sources) applies to the systems proposal assignment in that the team must actually work with a real (not fabricated) customer organization and must not fabricate any information that should come from that organization. Also, no part of any assignment completed for any other course or any other semester may be used as part of the assignment for this course this semester.
   - Plagiarism also applies to the in-class exercises. All work submitted for these assignments must be created, during the class period in which the exercise takes place, by the students submitting the work.
   - Academic dishonesty also includes interfering with another student's work or aiding another student to commit academic dishonesty.

Tentative schedule (as of 1/25/2017)
Below is a tentative schedule of lecture topics, exercises, exams, due dates, and other activities. I will
avoid changes if at all possible, but if I have to make a change I will let you know well in advance. The
latest updated schedule will always be on Blackboard, so you can check there to be sure.

Date	Topic	Activity	Reading	Due Today
Monday, January 30, 2017	Course introduction	Syllabus quiz		
Wednesday, February 01, 2017	Introduction to Systems Analysis	Lecture	Chapters 1-2	
Monday, February 06, 2017	Project definition and management	Lecture	Chapter 3	
Wednesday, February 08, 2017	Problem statements	Exercise	Case study materials	
Monday, February 13, 2017	Requirements gathering	Lecture	Chapters 4-5	
Wednesday, February 15, 2017	Requirements gathering	Exercise	Case study materials	
Monday, February 20, 2017	Agile approaches	Lecture	Chapter 6	
Wednesday, February 22, 2017	Forming teams	Exercise		
Monday, February 27, 2017	Diagrams	Lecture	Chapters 7, 9, and 10	
Wednesday, March 01, 2017	Data Flow Diagrams	Exercise	Case study materials	
Monday, March 06, 2017	Data Dictionary	Lecture	Chapter 8	
Wednesday, March 08, 2017	Midterm review			Systems Proposal proposal
Monday, March 13, 2017		Midterm Exam		
Wednesday, March 15, 2017	Feasibility analysis	Go over midterm		
Monday, March 20, 2017	Spring Break			
Wednesday, March 22, 2017	Spring Break			
Monday, March 27, 2017	Economic feasibility	Lecture	Review chapter 3	
Wednesday, March 29, 2017	Economic feasibility	Exercise	Case study materials	
Monday, April 03, 2017	Other types of Feasibility	Lecture	Review chapter 3	
Wednesday, April 05, 2017	Other types of Feasibility	Exercise	Case study materials	
Monday, April 10, 2017	Generating alternatives	Lecture		
Wednesday, April 12, 2017	Generating alternatives	Exercise	Case study materials	
Monday, April 17, 2017	Comparison criteria	Lecture		
Wednesday, April 19, 2017	Comparison criteria	Exercise	Case study materials	
Monday, April 24, 2017	Making a recommendation	Lecture		
Wednesday, April 26, 2017	A little bit about design	Lecture	Chapters 11-15 (skim)	
Monday, May 01, 2017	Creativity in design	Exercise		Systems Proposal first draft
Wednesday, May 03, 2017	Desk Set (movie)	Exercise		
Monday, May 08, 2017	The rest of the story…	Lecture	Chapter 16	
Wednesday, May 10, 2017	Maintenance	Exercise		
Monday, May 15, 2017	Final review			Systems Proposal final version
Monday, May 22, 2017, at 10:30am, in MP 012			**Final Exam**	