# MIS3506 – Digital Design and Innovation Spring 2017

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Section 1 (Lavin)	Alter Hall 603	T/R 2:00-3:20	
Section 2 (Sclarow)	Alter Hall 603	T/R 3:30-4:50	

Course Site: http://community.mis.temple.edu/mis3506digitaldesignspring2017

# **Prerequisites**

Grade of C or better in MIS2101.

#### **Course Objectives**

In this course you will learn how to analyze business problems from a design perspective and how to develop innovative solutions. We will use a semester project for a real client as the vehicle for "learning by doing." Assuming the role of Business Analyst, you will learn various techniques including stakeholder analysis, business rules analysis, and data and process modeling. You will learn to apply different techniques to elicit requirements which will define the problem and what a solution should look like. Finally, you will work in teams to analyze an actual problem, prototype a solution using *Justinmind* software and present your proposed solution to the client.

# **Textbooks and Supplies**

Required:	Carkenord, Barbara A., <u>Seven Steps to Mastering Business Analysis</u> , J. Ross Publishing, 2009, ISBN 978-1-60427-007-5.
	Ellen Gottesdiener, The Software Requirements Memory Jogger, 2005, ISBN1-57681-060-7

#### **Evaluation**

Item	Percentage	
Exam 1	25%	
Exam 2	25%	
Exam 3	25%	
Final Team Project	25%	

Grading Scale				
94-100	Α	73-76	O	
90-93	A-	70-72	C-	
87-89	B+	67-69	D+	
83-86	В	63-66	D	
80-82	B-	60-62	D-	
77-79	C+	Below 60	F	

#### **Exams**

There will be three hourly examinations throughout the semester. These exams will cover both the assigned readings and the application of the techniques presented in class in the form of a case study with questions. The exams will be multiple choice. Missed exams can only be made up in the case of documented and verifiable extreme emergency situations. Each exam will be graded on a 0-100% scale and together they will account for 75% of your final grade.

Please note that the slides and/or class discussions may not include everything that is covered by the textbooks. If a certain topic is not covered in the class it does not mean that you are not responsible for it. You will be responsible for everything in the relevant chapters in the textbooks and the readings, unless I specify otherwise

#### **Scope Document**

We will be working on a single case throughout the semester. Your will need to write a scope document that described the context in which our client finds itself, a cogent description of its problem, and a series of carefully worded client objectives. Your scope document must be turned in at the start of class **on paper.** Your team will review each other's scope documents and write a team scope which will be turned in.

#### **Team Project**

We will introduce a case study early in the semester. Your team will analyze the situation the case presents using the tools and techniques we introduce throughout the semester. You will then, as a team, construct a prototype of your proposed solution using *Justinmind* and you will present your solution to the client.

We will evaluate the following when reviewing your team's project. For each of the criteria we will decide whether your efforts exceed expectations, meet them or fail to meet them.

Scope (How well did you define a real problem that the client cares about?	20%
Prototype (How well did you use JIM to specify a viable solution to your client's problem?	20%
Innovation (How creative or original is your solution to the customer's problem?)	10%
Presentation (How well did you sell your ideas to the client?)	20%
Use Cases/Scenarios (How well does your persona demonstrate how your prototype will solve the client's problem)	10%
Data (How well have you used the data features of JIM to specify the data that will be needed for your solution?)	10%
Business Rules (How well have you articulated the business rules that would govern your client's use of your solution)	10%

Your team's project will receive a numeric grade of up to 100 points. Your individual project grades will be assigned based on peer and instructor evaluation and may vary +/- 10 points.

#### **Project Team Peer Review Sessions**

For three consecutive weeks during the second half of the semester you will review your team's prototype and project work with another team. The quality of this weekly peer review will impact the quality of your team's final submission so you will want to take these sessions seriously.

#### **Class Discussions**

Come to class prepared to work. This is an applied course, meaning that you will be learning skills and using them in class. For a typical class, we will discuss the readings that are due, learn one or more new skills, practice them and then critique each other's work. You must be willing to give and receive honest, constructive criticism to do well in this class.

#### **Extra Credit**

There are 3 prototyping opportunities to earn extra credit points during the semester. Students are required to produce a prototype in Justinmind for each of the following class exercises:

- Sales Order Prototype
- Night Owl Data Prototype
- Gas Company Prototype

Students who submit prototypes that are complete AND well done will earn 1 point on their FINAL grade for each. (Maximum of 3 points total including the opportunities listed below)

### **Schedule** (Keep in mind that all dates are tentative)

This syllabus may be changed with prior notice based upon the pace and needs of the class and other unforeseen circumstances. Any change or other information about the class will be announced during the class and on the class calendar on the MIS community site.

Reading: A reference to the relevant material in your textbook. Unless I explicitly specify certain sections in a chapter to be excluded from readings, you will be responsible for the chapters in their entirety. For each week/topic the relevant chapters are listed in the tables below.

#### **MIS Majors**

A grade of a 'C or better' is required for all MIS courses in order to move onto the next course in sequence. MIS students are ONLY permitted to repeat a course one time. Any MIS student repeating a course should seek the guidance of the Senior Program Specialist or their Fox School UG advisor. MIS majors WILL NOT be permitted to register for a course a third time. Each time a student registers for a course and earns a grade, including a "W" when withdrawing from a course, will count towards this limit.

### **Attendance Policy**

While attendance will not be taken, you are expected to attend each and every class. I expect you to arrive on time to class. If you miss a class it is your responsibility to catch up, get notes from your classmates, check the class blog, find out the homework, team assignments, readings, etc. - Class Capture will not be provided.

#### Appropriate Use of Technology in the Classroom

Please don't take calls or texts during class. If you have an urgent, personal situation and may be receiving an important phone call during class, please notify me at the beginning of class, sit near the door, and step out of the classroom if you need to take a call.

The use of laptop computers in the classroom is permitted for taking notes, sharing homework, and working on our activities. Laptop use for any other purpose is prohibited. This distracts the students sitting around you. If I find that you are using a laptop for something other than taking notes, you will be asked to put your laptop away and you will no longer be permitted to use a laptop in the classroom.

### **MIS Community Blog**

We will not be using a Blackboard web site for this course. Instead we will be using a blog on the MIS Community site. The syllabus, weekly topics, your grades and all course related communications will be on this blog.

#### **Academic Integrity**

Plagiarism and academic dishonesty can take many forms. The most obvious is copying from another student's exam, but the following are also forms of this:

- Copying material directly from the Internet (or another source) without a proper citation crediting the author
- Turning in an assignment from a previous semester as if it were your own
- Having someone else complete your lab assignment and submitting it as if it were your own
- Signing someone else's name to an attendance sign-in sheet
- Use of assignments completed in one class as any part of a project assigned in another class
- Sharing/copying homework assignments.
- Use of unauthorized notes during an examination
- In cases of cheating, both parties will be held **equally responsible**, i.e. both the student who shares the work and the student who copies the work.

Of course, behavior like this will not be tolerated in this class. Penalties for such actions are given at my discretion, and can range from a failing grade for the individual assignment, to a failing grade for the entire course.

# **Academic Honesty**

Temple University believes strongly in academic honesty and integrity. Plagiarism and academic cheating are, therefore, prohibited. Essential to intellectual growth is the development of independent thought and a respect for the thoughts of others. The prohibition against plagiarism and cheating is intended to foster this independence and respect.

Plagiarism is the unacknowledged use of another person's labor, another person's ideas, another person's words, another person's assistance. Normally, all work done for courses -- papers, examinations, homework exercises, laboratory reports, oral presentations -- is expected to be the individual effort of the student presenting the work. Any assistance must be reported to the instructor. If the work has entailed consulting other resources -- journals, books, or other media -- these resources must be cited in a manner appropriate to the course. It is the instructor's responsibility to indicate the appropriate manner of citation. Everything used from other sources -- suggestions for organization of ideas, ideas themselves, or actual language -- must be cited. Failure to cite borrowed material constitutes plagiarism. Undocumented use of materials from the World Wide Web is plagiarism.

Academic cheating is, generally, the thwarting or breaking of the general rules of academic work or the specific rules of the individual courses. It includes falsifying data; submitting, without the instructor's approval, work in one course which was done for another; helping others to plagiarize or cheat from one's own or another's work; or actually doing the work of another person.

The penalty for academic dishonesty can vary from receiving a reprimand and a failing grade for a particular assignment, to a failing grade in the course, to suspension or expulsion from the University. The penalty varies with the nature of the offense, the individual instructor, the department, and the school or college.

Students who believe that they have been unfairly accused may appeal through the School or College's academic grievance procedure. See <u>Grievances</u> under Student Rights in this section.

Source: Temple University Undergraduate Bulletin, 2006-2007. Available online at: <a href="http://www.temple.edu/bulletin/Responsibilities\_rights/responsibilities/responsibilities.shtm#honesty">http://www.temple.edu/bulletin/Responsibilities\_rights/responsibilities/responsibilities.shtm#honesty</a>

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Wk	Date	Topic	Readings	Deliverables
1	1/17 1/19	Introduction to the class and the field of Business Analysis		
2	1/24 1/26	Understanding the nature of project work and the people who are involved	Seven Steps, Chapters 1&2 Warehouse Stakeholder Case	
	1/30	Last day to Drop/Add		
3	1/31 2/2	Scoping your project (Problem statement, Objectives, Assumptions & Constraints)  2/2 Interview #1 with Pound Cake 2PM, Alter 603	Seven Steps, Chapter 3 <a href="http://blog.strategyzer.com/posts/2015/11/8-tips-for-conducting-interviews-that-deliver-relevant-customer-insights">http://blog.strategyzer.com/posts/2015/11/8-tips-for-conducting-interviews-that-deliver-relevant-customer-insights</a> Dysfunctional Warehouse Case	10 Team Interview Questions
4	2/7 2/9	Researching your project and interviewing skills	Seven Steps, Chapter 4 "Elicit the Requirements" Jogger, 43-49	Individual scope document draft due (Th 2/9)
5	2/14 2/16	Understanding work processes and use cases  2/16 Interview #2 with Pound Cake 3:30 PM, Alter 603	Seven Steps, Chapter 6 "Process Maps" Jogger, pp. 122-126 The Sales Order Case	Team Scope Doc Due (Th 2/16)
6	2/21 2/23	2/21 Exam 1 Understanding the data your client needs	Seven Steps, Chapter 7 "Data Model" Jogger, pp. 183-189 The Night Owl Case	Sales Order Extra Credit Due (Th 2/23)
7	2/28 3/2	Understanding the rules that govern your client's business	"Business Rules" Jogger, 204-215 The Gas Deposit Case	Night Owl Data Extra Credit Due (Th 3/2)

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8	3/7 3/9	3/7 Interview #3 with Pound Cake 2:00 PM, Alter 603		Gas Company Extra Credit Due (Th 3/9)
	3/14 3/16	Spring Break		
	3/22	Last day to Withdraw		
9	3/21 3/23	Switching to the art of design and understanding prototyping as a specification  Create and document your use cases  Create a persona, a story (scenario) to	Moggridge on the Design Process  Brainstorming Doesn't Work: Try This Technique Instead  "Prototypes" Jogger, 77-81  "use Cases" Jogger, 150-175  Usibility.gov Personas	Team prototype and scenario
10	3/28	demonstrate your solution	<u>Usibility.gov Personas</u>	ream prototype and scenario
11	4/4 4/6	Create and document your data needs	Data Modeling 101, 3.1-3.6	Team prototype and data schema
12	4/11 4/13	Create and document the business rules that govern your prototype	What makes a good Business Rule?	Team prototype and business rules
13	4/18 4/20	Selling your ideas		Team prototype and presentation draft
14	4/25 4/27	Final Presentations		Final prototype and presentation
	TBD	Exam 3		Exam 3: (1 hour)