Course Syllabus
MIS 6308/ACCT 6340

School of Management
The University of Texas at Dallas

Course Information

Course

Course Number/Section	MIS 6308.0I1
Course Title	Systems Analysis and Project Management
Term and Dates	Fall 2016

Professor Contact Information

Professor	Srinivasan Raghunathan
Office Phone	972-883-4377
Email Address	sraghu@utdallas.edu
Office Location	SOM 3.425
Other Information	The quickest and easiest way to contact me is through email. If it is a topic that needs to be addressed over the phone you can call during my office hours or email me to set up a time to call/meet.

Course Pre-requisite
MIS 6326

Course Description
This class focuses on analysis and design of business information systems using object oriented methods. The objective of the course is to provide you with the concepts related to systems development and management activities and the tools required in these activities. The class will be conducted using a variety of methods including lectures, exercises, cases, and online discussions. Since this is a graduate course, I expect a great deal of participation from you in the form of discussions and active participation in a major project.

Student Learning Objectives/Outcomes
1. Understand object oriented analysis and design methods.
2. Be able to model an information system using Unified Modeling Language (UML) diagrams
3. Be able to analyze an existing system and identify the causes of an information related problem, and design a new system to mitigate these problems
4. Understand the unique issues of managing information systems development projects

Required Textbooks and Materials
Required Text
"Systems Analysis and Design in a Changing World" by John Satzinger, Robert Jackson, and Stephen Burd, Cengage Learning, Seventh Edition. ISBN-13: 9781305117204

(Sixth edition of this book will also be fine; however, chapter sequences are different in the two editions. The sixth edition chapter numbers are indicated in italics in the course schedule)

Recommended Software: Visual Paradigm, which can be downloaded from www.visual-paradigm.com. The community edition of this software can be freely downloaded for unlimited educational use. For parts of the course related to BPMN, you need at least Visual Paradigm Modeler Edition. You can get a 30-day free trial or you can buy it on a subscription basis.

Textbooks and some other bookstore materials can be ordered online Off-Campus Books or the UTD Bookstore. They are also available in stock at both bookstores.

Top

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirement must be met to enable a successful learning experience. Please review the important technical requirements and the web browser configuration information.

Top

Course Access and Navigation

This course was developed using a web course tool called eLearning. It is to be delivered entirely online. Students will use their UTD NetID account to login to the course at: http://eLearning.utdallas.edu. Please see the course access and navigation information.

To get started with an eLearning course, please see the Getting Started: Student eLearning Orientation.

If you have any problems with your UTD account or with the UTD eLearning server, you may send an email to: assist@utdallas.edu or call the UTD Computer Helpdesk at: **972-883-2911**. If you encounter any technical difficulties within the course site, please send an email to gmbasupport@utdallas.edu.

Top

Communications

This eLearning course has built-in communication tools which will be used for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. Please see more details about communication tool information.

Interaction with Instructor: I will communicate with students mainly using the Announcements and Discussions tools and eLearning email. Students may send personal concerns or questions to me using the course Email tool. I will reply to student emails or Discussion board messages within 3 working days under normal circumstances. I generally check my email daily during the week. However, please remember that I am human like the rest of you, with family obligations

and outside commitments. So, if I do not respond immediately to your email, please do not worry. I will get in touch with you as soon as I am able to. I take weekends off, so do not expect a response until Monday.

The other form of regular interaction will be through the discussion board. I will post one or more questions every week pertaining to the readings for that week. You will need to participate in the discussion function in order to get credit for participation.

Top

Student Assessments

Grading Information

Weights

Assignment 1	20	6.6%
Assignment 2	20	6.6%
Assignment 3	20	6.6%
Assignment 4	20	6.6%
Proctored Exam	100	34%
Project	100	33%
Participation	20	6.6%
Total	300	100%

Grading criteria

Scaled Score	Letter Equivalent
90-100	A
87-89	A-
84-86	B+
80-83	B
77-79	B-
74-76	C+
70-73	C
Less than 70	F

Accessing Grades

Students can check their grades by clicking “My Grades” under Course Tools after the grade for each assessment task is released.

Course Policies

The assignments are due by the date given on the syllabus. There are no make-ups or extra credit opportunities and I will not accept late work. If you know in advance that there will be a

conflict, please inform me and we will try to work something out. I will not consider a change after the date.

Class Participation
Students are required to login regularly to the online class site. The instructor will use the tracking feature in eLearning to monitor student activity. Students are also required to participate in all class activities such as discussion board activities, chat or conference sessions and group projects.

Virtual Classroom Citizenship
The same guidelines that apply to traditional classes should be observed in the virtual classroom environment. Please use proper netiquette when interacting with class members and the professor.

Assignments

Assignments:
You will be assigned four assignments during the semester. Each assignment will be worth 6.6% of the total points each and will count for 26.4% of your grade. You can think of these as take home exams, since they will be looking for both knowledge of the key ideas and the ability to integrate them.

Project:
A very important part of this course is the semester long project. A team will have a maximum of 5 members. The objective of this project is to analyze a real-life business system, identify problems and improvements, and recommend and design a new system to address the problems/improvements. The project synthesizes all tools and techniques you will be learning throughout the course. The exact nature of the project and requirements will be posted on eLearning at the beginning of the semester.

The project will be due on the last day of classes of the semester. The project will be worth 33% of your grade. The contribution of each person in a group will be evaluated and graded.

Participation:
You will be expected to participate regularly in online discussions. A great deal of learning takes place when you share your experiences with others. I will post questions and comments to the discussion board which you can respond to. Participation is worth 6.6% of your grade.

Guidelines for participation in the discussion:

1) Both responses to discussion postings by students and for responses to questions submitted by professor will be considered in evaluating participation.

2) When a question is posted, the first few replies can answer the question directly, posts after should generally respond to the answers given by other students to mimic an in class discussion. Look at this as a conversation with one another rather than trying to impress me with the “right” answer.

3) Both quality and quantity of responses will be evaluated. So, posts such as “I agree” or “sounds good to me” do not count towards participation (although you can certainly use these to advance the conversation. In order to count as participation your post has to be well thought our and pertain to the topic for the week. You should reference some of the concepts we are currently examining in class, not just offer vague assessments such as “there was a problem motivation”. You can also refer back to previous weeks’ material if relevant. Integration of

concepts is key since none of the issues operate completely independent of one another. For example, conflict is often caused by miscommunication, so you might refer to both in a discussion even if the question is about conflict.

4) Keep discussion on topic and factual in nature. No flaming allowed. Opinions are fine as long as they are supported by facts. For example, stating that you think that a specific course of action is correct because of x, y, z is acceptable. Stating that the previous poster is an idiot is not.

5) Grammar and spelling are not graded in the discussion section, so don't feel that you have to spend hours editing your response. However, please use full words, not acronyms and abbreviations – not everyone is familiar with the text message language.

6) Limit your response to 250 words – any more than that and readers lose the point (and interest).

7) In order to receive full participation points you must post on the average 1-2 value-added comments to all discussion questions. These comments should be received in a timely manner, and before the last day of classes. Posting comments to several earlier discussions toward the end of the semester will not be viewed positively.

Online Assignments

You can access assignments by clicking the Assessments link on the course menu or see the quiz/exam icon on the designated page.

Assignment submission instructions

You will submit your assignments (in the required file format with a simple file name and a file extension) by using the Assignments tool on the course site. Please see the Assignments link on the course menu or see the icon on the designated page. You can click each assignment name link and follow the on-screen instructions to upload and submit your file(s). Please refer to the Help menu for more information on using this tool. **Please note**: each assignment link will be deactivated after the assignment due time. After your submission is graded, you may click each assignment's "Graded" tab to check the results and feedback.

Proctored Final Exam Information

This course requires a proctored final examination. Local students can take their exams on-campus at the UTD Testing Center (no fee charge). Please see the UTD Testing Center Website for more information. Please be sure to view and follow the Test Center Policies. You will go to UTD Testing Center (MC 1.304) during the Exam Time Window for UTD Testing Center (12/9 – 12/10). You will need to reserve your time slot for taking the exam using the online reservation system found at the testing center website. You will need to sign in with your Comet Card (or a photo ID and UTD ID number if you don't have a Comet Card) to take the exam. If you cannot take the exam at the UTD Testing Center, then you take the exam with an outside testing service by following the procedure below.

Students who find UTD geographically inconvenient may use a testing service of their choice at a convenient location to have the exam proctored. All exams must be completed within the exam time window for external testing center: (12/9 – 12/10). All students must inform the instructor, as well as the UTD eLearning Team (proctoredexam@utdallas.edu) of their testing location. A proctored exam form must be completed and sent back to the eLearning Team before (8/8). Please go to the Proctored Exam Information page to access and complete the Online Proctored Exam Form and find all the detailed information and procedures on arranging

a proctored exam. Please note students are responsible for any fee charge of their testing services. All completed exams must be received by (12/12) to allow timely grade reporting to the UTD Registrar.
Top

Academic Calendar

WEEK/ DATES	TOPIC/LECTURE	READING	ASSESSMENT / ACTIVITY	DISCUSSION QUESTIONS
1 Aug. 22-28	Course Access and Introduction	Syllabus	• Intro. Video • Formation of groups and meeting (virtual) with team members	1. What is your academic and professional background? 2. What motivated you to take this course? 3. What do you expect to learn from this course?
	Module 1 – Introduction to Systems Concepts and Object Orientation Unit 1: Overview and Basic Systems Concepts	Read Chapter 1: From Beginning to End: An Overview of Systems Analysis and Design And Online Chapter A: Role of Systems Analyst *(Edition 6: Chapter 1 and Online Chapter A)*	Lecture	
2 Aug. 29 – Sep. 4	Unit 2: Approaches to Systems Development	Read Chapter 10: Approaches to Systems Development	• Lecture	The SDLC used to be the favored methodology to develop information systems. It is slowly being replaced by agile development. a) What is the

				reason for the shift? b) Does the appropriate or preferred methodology depend on the type of system (viz., TPS, MIS, DSS, ES) being developed?
3 Sep. 5 -11	Unit 3: Object Concepts	Class slides for Unit 3 (the material is distributed in various chapters such as Chapter 4 and Chapter 12) *(Edition 6: Chapter 8, and parts of Chapter 4 and Chapter 10.)*	• Lecture	How do object concepts such as encapsulation, aggregation, and polymorphism support systems concepts?
4 Sep. 12 – 18	Module 2 – Systems Analysis Unit 4: System Proposal and Collecting Data about the Current System Unit 4a: Introduction to Gas Buddy Case	Read Chapter 2: Investigating System Requirements And Gas Buddy Case *(Edition 6: Chapter 2)*	• Lecture	1.Why is it important to have an initial problem statement before the detailed analysis begins? 2. In information systems, we distinguish between functional problems and performance problems. Give some examples of the two types. Why is such a distinction important?

5 Sep. 19-25	Unit 5: Process Modeling Unit 5a: Process Modeling for the current Gas Buddy System	Read Introduction to BPMN – reading material and Chapter 3: Identifying User Stories and Use Cases *(Edition 6: Chapter 3)*	• Lecture • BPMN Models, Use case diagrams and use case descriptions for the Gas Buddy case	1. The distinction between <<include>> and <<extend>> relationship is critical in use case modeling. Provide an example that illustrates the difference between these two. 2. Use case descriptions look similar to pseudo code. Compare and contrast the two.
6 Sep. 26- Oct. 2	Unit 6: Data Modeling Unit 6a: Data Modeling for the current Gas Buddy System	Read Chapter 4:Domain Modeling *(Edition 6: Chapter 4)*	• Lecture • Use Case documentation and Class diagram for the Gas Buddy case • Assignment 1 Due on Sep. 28	The BPMN, and UML models for Gas Buddy has a number of errors and limitations such as inconsistency between the different models. Identify at least one error. You cannot repeat what other have already identified.
7 Oct. 3 - 9	Unit 7: Dynamic Modeling Unit 7a: Sequence Diagram for the calculate trip cost use case	Read Chapter 5: Use Case Modeling *(Edition 6: Chapter 5)*	• Lecture • Sequence diagram for Gas Buddy case	The sequence diagrams help us complete the class/object model for the system. Illustrate using an example, which could be the Gas

				Buddy case or any other, how sequence diagrams help us complete the class diagrams developed in the data modeling stage.
8 Oct. 10 – 16	Unit 8: Analysis of Gas Buddy UML Models Unit 8a: Models for the To-be Gas Buddy System		• Lecture • Assign. 2 due on Oct. 12	Now that we have the model of the current Gas Buddy system, we can analyze it against the problems we identified in unit 3. Study the UML model carefully, and answer the following. 1. What could be other potential reasons for each of the problems we identified. 2. What changes should we make to the processes to solve these problems? 3. What changes should we make to the UML models to incorporate

				the solutions?
9 Oct. 17 - 23	Module 3: Systems Design Unit 9: Systems Design and User Interface Design	Read Chapter 6: Foundations of Systems Design Read Chapter 8: Designing the User Interface And *(Edition 6: Chapters 6, 7)*	• Lecture	
10 Oct. 24 - 30	Unit 10: Database Design	Chapter 9: Designing the Database *(Edition 6: Chapters 7 and 12)*	• Lecture	
11 Oct. 31- Nov. 6	Unit 11: Software Design	Read Chapter 12: Object-Oriented Design: Fundamentals And Chapter 13: Use Case Realizations *(Edition 6: Chapters 10 and 11)*	• Lecture • Assignment 3 due on Nov. 2	1. Post at least one question regarding cohesion and coupling in software design. 2. Identify a method in the Gas Buddy system using the sequence diagram given in the Gas Buddy system documentation. For this method, determine the

				signature and the logic.
12 Nov. 7-13	Unit 12: Systems Architecture	Read Chapter 7: Defining the System Architecture	• Lecture	
13 Nov. 14-20	Unit 13: Testing and Implementation	Read Chapter 14: Deploying the new system And Class notes *(Edition 6: Chapter 13)*	• Lecture	What data will you use to test the sample program given in unit 13 if you use (i) statement coverage, (ii) branch coverage, (iiii) path coverage
14 Nov. 21-27	Module 4 – Information Systems Project Management Unit 14: Project Management	Read Chapter 11: Project Planning and Project Management And Online Chapter C *(Edition 6: Chapter 9)*	• Lecture	
15 Nov. 28-Dec. 4	Unit 15: IS Project Management	Class Notes	Assignment 4 due on Nov. 30	Research cost estimation methods used in the software industry. Post a method not discussed in the lecture.
16 Dec. 5 – 11			• Proctored Exam during Dec.	

			9-10 • Project Report Due on Dec. 7	

Top

Scholastic Honesty

The University has policies and discipline procedures regarding scholastic dishonesty. Detailed information is available on the Scholastic Dishonesty web page. All students are expected to maintain a high level of responsibility with respect to academic honesty. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

Top

Course Evaluation

As required by UTD academic regulations, every student must complete an evaluation for each enrolled course at the end of the semester. An online instructional assessment form will be made available for your confidential use. Please look for the course evaluation link on the course Homepage towards the end of the course.

Top

University Policies

Student Conduct & Discipline

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, *A to Z Guide*, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391).

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the

Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

Email Use

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

Withdrawal from Class

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

Student Grievance Procedures

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

Incomplete Grade Policy

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.

Disability Services

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is:
The University of Texas at Dallas, SU 22
PO Box 830688
Richardson, Texas 75083-0688
(972) 883-2098 (voice or TTY)

Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals

requiring special accommodation should contact the professor after class or during office hours.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.

If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

Off-Campus Instruction and Course Activities

Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at the website address given below. Additional information is available from the office of the school dean. (http://www.utdallas.edu/Business Affairs/Travel_Risk_Activities.htm)

These descriptions and timelines are subject to change at the discretion of the Professor.

Top