

# ISM 4113: SYSTEMS ANALYSIS & DESIGN

## COURSE SYLLABUS

### GENERAL INFORMATION:

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**Class Times:** Tuesday & Thursday 9:35 AM – 11:30 PM

**Class Location:** HVNR 240

**Professor:** Dr. Aditi Mukherjee

**Office; Phone:** STZ 360, 39-20648

**Email:** aditimukherjee@ufl.edu

**The subject line should contain ISM4113, otherwise the email may end up in my junk email and you may not get a response in a timely manner.**

**Office Hours:** Monday, Wednesday 9:30 – 11 AM

**If you wish to come to my office during office hours, you do not need to make an appointment.**

**Course Website:** All information and materials pertaining to this course will be made available through the course website on the Canvas system (<https://lss.at.ufl.edu/>). Please note that this is an eco-friendly class that is nearly paperless. With the exception of the in class tests, all graded materials will be submitted electronically using the course website on Canvas. Additional information regarding the submission policies for this class is provided below.

**Recommended Text:** *Systems Analysis and Design: An Object Oriented Approach with UML 5<sup>th</sup> Edition*  
Alan Dennis, Barbara Haley Wixom, David Tegarden, Wiley Publishers  
ISBN: 978-1-119-03026-3

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### COURSE GOALS:

The major goal of this course is to learn the basics of systems analysis and design. Modern businesses need information systems to support their business processes. Whether one opts for custom application development, or off-the-shelf information systems, it is important to understand the particular needs of a business to deliver a solution tailored to its requirements. The specification of a business' information needs is a non-trivial and complex task, and is hardly an exact science. Fortunately, several tools exist that can guide the modern systems analyst in this job. This course introduces the systems analysis and design process, and the various tools that have been traditionally used to come up with the specification of the information needs of a business (or a business division) that drives the development of the particular information system(s). To reinforce the concepts, the students will form small teams and analyze and design a business information system of their choice.

**GRADE COMPOSITION:**

Your grade for the course will be determined according to the following scheme:

- Homework Assignment                    10 %
- Project    30 %
- Exam I    30 %
- Exam II    30 %

The class grades will be assigned using the University of Florida's grading scale described in the table below. For more information, please refer to the [University of Florida Grading Policy](#).

| Score    | Grade | Score   | Grade | Score   | Grade | Score   | Grade | Score  | Grade |
|----------|-------|---------|-------|---------|-------|---------|-------|--------|-------|
| [93-100] | A     | [85-88] | B+    | [74-76] | C+    | [64-66] | D+    | [0-56] | E     |
| [89-92]  | A-    | [80-84] | B     | [70-73] | C     | [60-63] | D     |        |       |
|          |       | [77-79] | B-    | [67-69] | C-    | [57-59] | D-    |        |       |

**A. Homework Assignment**

In order to demonstrate your understanding of the various processes and tools discussed in class, you will be required to complete an individual project. This individual project has five deliverables and must be individual work only. Please read the instructions and requirements for each deliverable very carefully. Please feel free to discuss the project with me prior to the submission date. I will be available in my office hours to answer your questions regarding this project. The due date will be strictly enforced, and no late, faxed, emailed or photocopied submissions are acceptable. The details and the deadlines for each deliverable are available in the Individual Project Instruction Sheets.

**B. Project**

An important aspect of the course is to complete a project, where you will be asked to work in groups of up to five students. The project will comprise of multiple deliverables which must be completed by the group during class and submitted online. At the end of the module, the groups will revise and consolidate all the deliverables into a final comprehensive report. The details of the project requirements and expectations will be made available as the course progresses. For students who are unable to attend all classes to complete this project in a group setting, an alternative project option will be provided on the course website.

**C. Exams**

There are two exams for this course. Exam I will be held in-class mid-module and Exam II will be held during the finals week of Module 3. Both exams will be closed book unless otherwise announced. No laptop, palmtop, or hand-held computing devices will be allowed. Exam II will not be comprehensive, and further details of the time and location will be provided later.

**CLASS POLICIES:****A. Class Attendance, Participation and Discipline**

**A1. Attendance:** Class sessions will provide useful information – both for learning the topics covered in the course and for working on the project. The text and other reading materials alone are not likely to be sufficient for one to do well in the course. Attendance is not compulsory during regular classes. However, if you miss a class, you will be responsible for all materials discussed during class and assigned in the class readings for that class. There will be no make-up class assignments, exercises, quizzes or exams.

**A2. Participation:** Student participation in class discussions is crucial because it introduces alternative viewpoints and helps clarify concepts for the class as a whole. I expect highest level of participation during the entire module. You should complete the assigned readings before coming to class.

**A3. Discipline:** I expect you to maintain the decorum of the class at all times. As with any other group activity, please be acutely aware that your actions in class may have negative externalities that can collectively affect the performance of the entire group. Please keep the following in mind:

- Students are expected to attend all classes and arrive in class on time and stay till the end of the class. If a student must be late or must leave a class early, he or she should make prior arrangements with the instructor. If you cannot be on time or must leave the classroom for any reason, please do not bother coming/returning.
- Students should refrain from using the computer during class time for activities that are not directly related to the topic being discussed in class. These activities include, but are not limited to, instant messaging, web surfing, game playing, social networking, watching sports etc.
- Students are expected to respect the rights of their classmates and should never exhibit any behavior that is disruptive to the learning experience of anyone. For example, cell phones should not be allowed to ring, and calls should not be made or taken, inside the classroom. You will be asked to switch off your phones during quizzes and exams conducted in the classroom.

**B. Grade Related Issues**

**B1. Make Up Exams:** THERE WILL BE NO MAKEUP EXAMS or ASSIGNMENTS. Conflicts for the exams must be resolved before the exam dates. The instructor should be informed in writing at least two weeks prior to the exam date. Last minute requests will not be entertained. The only reasons for not being able to take the exam at its designated time is due to a [University of Florida sanctioned excuse](#). Proper documentation must be provided within one week of the absence clearly indicating: (a) name of the student and (b) the dates & reason for absence.

**B2. Late Submissions:** No late submissions will be accepted under any circumstances. All deadlines will be provided to you on the first day of class. Please be mindful of these dates and schedule your activities accordingly. You must familiarize yourself with the submission tool in Canvas before the first assignment.

**B3. "Re-grade" Requests:** Please note that any request to re-grade any component of your submissions (assignment, quiz, exam or project) has to be made within the week you receive the grade. Given the size of the class, and the speed with which the course progresses, any request beyond this deadline cannot be considered. The only exception to this rule is a documented emergency.

**C. Group Selection and Management**

I expect all members of the group to contribute equally to the group activities and its output. By joining a group, you are making a commitment to contribute your time and skills towards completing the group project. If you are unable to make such commitments, you may discuss the possibility of completing the group project as an individual assignment.

Any problems with group dynamics need to be resolved as soon as possible. Complaints regarding unfair treatment by fellow group members at the end of the course will NOT be entertained.

**D. Teaching Policies**

An updated list of UF teaching policies regarding academic honesty, student illness, religious holidays, accommodating students with disabilities and others are available at this website (<http://www.registrar.ufl.edu/staff/policies.html>). Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

One point worth emphasizing: plagiarism in any form is completely unacceptable and will not be tolerated. Students found receiving and/or giving any assistance will be automatically awarded a 0 grade for the assignment, homework, project or exam, depending on the severity of the event which will be assessed by the instructor.

**E. Communication**

I will be available at my office during the office hours. I will also be available to talk to you at other times by appointment. To schedule an appointment at any other time than my regular office hours, please send me e-mail at [aditimukherjee@ufl.edu](mailto:aditimukherjee@ufl.edu), **BUT NOT THROUGH THE E-LEARNING/CANVAS E-MAIL SYSTEM**. Most of my communication that is meant for the entire class will be through the e-learning platform (other than occasional emails to the mailing list, which will come into your Gatorlink mailbox), so do log in to the system regularly. The subject line should contain 'ISM4113', otherwise the email may end up in my junk email and you may not get a response in a timely manner.

Further, make sure that you are not over quota with your Gatorlink mailbox, since in such cases you will not be aware of the latest emails pertaining to this class.

**F. Honors Policy**

You are expected to follow the University of Florida's Academic Honesty and Conduct Codes when working on assessments, quizzes, assignments, projects, tests, and exams. One point worth emphasizing: plagiarism in any form is completely unacceptable and will not be tolerated. We will be following the ISOM Department policy regarding cheating:

"For any academic class activity, students must follow the University of Florida Student Honor Code. Any violation of the honor code will automatically result in a grade of E (Fail) for this course and further sanctions that may include a suspension or expulsion from the University through the Dean of Students Office. All incidents will be reported to Student Conduct and Conflict Resolution at the University of Florida."

You are expected to read the complete policy at

<http://www.registrar.ufl.edu/catalog/policies/students.html#honesty>

**CLASS SCHEDULE**

The following is a tentative course schedule. For the complete and updated course schedule, including project and assignment deadlines, please review the class website on Canvas.

| <b>Class</b> | <b>Topic</b>  |
|--------------|---|
| 1            | Course Introduction                                 |
| 2            | Why do we need Systems Analysis & Design            |
| 3            | Project Management                                  |
| 4            | Requirements Determination<br>Software Architecture |
| 5            | No Class - Labor Day                                |
| 6            | Process Modeling (DFD 1)                            |
| 7            | Process Modeling (DFD 2)                            |
| <b>8</b>     | <b>Exam I</b>                                       |
| 9            | Object Oriented Concepts                            |
| 10           | Use Case  |
| 11           | Class Diagram                                       |
| 12           | Data Modeling                                       |
| 13           | Testing & Maintenance                               |
| 14           | Final Exam Review                                   |
| <b>15</b>    | <b>Exam II</b>                                      |