



Course ITSS 4330 Systems Analysis and Design
Instructor Prithi Narasimhan
Term Spring 2016

Course Information

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| Course Number/ Section | ITSS 4330.001 |
| Course Title | Systems Analysis and Design |
| Term | Spring 2016 |
| Days and Times | Mondays and Wednesdays, 10:00 AM to 11:15 AM Except Martin Luther King Day and Spring Break (Monday, 18 th January; Monday, March 14 th to Saturday, March 19 th) |
| Exam Dates | Exam 1: 22nd February and 24 th February Exam 2: 25 th April and 27 th April |
| Location | JSOM 2.106 |

Instructor Contact Information

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| Instructor | Prithi Narasimhan |
| Office Phone | (972) 883-5007 |
| Email Address | Please use e-learning to contact me (Course Messages) |
| Office Location | JSOM 3.811 |
| Office Hours | By appointment. Mondays – 12:30 to 1:30 PM and 5:30 to 6:30 PM Tuesdays – 1:15 to 2:15 PM and 4:00 to 5:00 PM Wednesdays – 11:30 to 1:00 PM Thursdays – 1:15 to 2:15 PM |

Teaching Assistant Contact Information

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| Teaching Assistant | To Be Announced. |
| Office Hours | To Be Announced. |
| Office Location | To Be Announced. |
| Email Address | To Be Announced. |

Prerequisites

ITSS 3312: Object-Oriented Programming and (MATH 1326 or MATH 2414 or MATH 2419)
and (MATH 2333 or OPRE 3333 or MATH 2418 or MATH 2415 or CS 2305)

Corequisite: ITSS 4300: Database Fundamentals

Course Description

To provide the student with an in-depth knowledge of object oriented systems analysis and design procedures. Software project management techniques will be covered. At the end of the course, the student will be able to analyze business situations and design computer based information systems using object-oriented methodologies. (3 semester hours)

This is a Communication-Enhanced Course (CEC). CECs are courses in which you will strengthen your writing and speaking skills while you deepen your understanding of key material in your major. Both studies and employers tell us that your ability to write clearly and speak well about topics in your field will strongly increase your chances of professional success. CECs will help you to develop as a professional communicator and demonstrate your abilities both to your instructor and to potential employers. JSOM undergraduates will take 2 CECs before they graduate. You are encouraged to seek help with your speaking and writing at the Business Communication Center (<http://bcc.utdallas.edu>).

Learning Outcomes

Students will:

1. Understand object oriented analysis and design methods.
2. Model an information system using Unified Modeling Language (UML) diagrams.
3. 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 Texts & Materials

Systems Analysis and Design with UML Version 2.0 by Dennis, Wixom, and Tegarden, Wiley Fourth Edition.

Textbooks can be ordered online through Off-Campus Books or the UTD Bookstore. They are also available in stock at both bookstores.

Rational Software Modeler Software or Visual Paradigm, which can be downloaded from ibm.com for a trial period.

You can use other software like Visio, if you are more comfortable using that software. Visio is available in the labs.

Course Schedule/ Topics

This is a **tentative** class schedule; changes to the schedule will be posted in eLearning. There are 15 meetings in this course including the two exams. The following gives a tentative outline and sequence of the topics to be covered or the activities to take place (exams or assignments) in these meetings. Assignments are due at the beginning of class; for example, an assignment due in Class 2 should be submitted through elearning before the start of Class 2. Agenda, topics and homework for each meeting will be posted before the class or shortly after the class.

| Date | Week | Topics | Assignment/ Project Due | References |
|------------------------------|---|--|--|-------------------|
| Monday, January 11, 2016 | 1 | Introduction to the Course The Systems Analyst and Information Systems Development | | Chapter 1 |
| Wednesday, January 13, 2016 | | | | |
| Monday, January 18, 2016 | Martin Luther King Day **** No Class **** | | | |
| Wednesday, January 20, 2016 | 2 | Project Selection and Management | | Slides |
| Monday, January 25, 2016 | 3 | Project Management in Information Technology Project Management Process Groups and Knowledge Area | | Chapter 2, Slides |
| Wednesday, January 27, 2016 | | | Group Project Module 1 Individual Assignment 1 | |
| Monday, February 1, 2016 | 4 | Basic Concepts in Object Orientation Requirements Definition | | Chapter 3, slides |
| Wednesday, February 3, 2016 | | | Individual Assignment 2 | |
| Monday, February 8, 2016 | 5 | Functional Modeling Structural Modeling | | Chapter 4 and 5 |
| Wednesday, February 10, 2016 | | | | |
| Monday, February 15, 2016 | 6 | Behavioral Modeling | | Chapter 6 |
| Wednesday, February 17, 2016 | | | Individual Assignment 3 | |
| Monday, February 22, 2016 | 7 | EXAM 1 - Part 1 | | |
| Wednesday, February 24, 2016 | | EXAM 1 - Part 2 | | |
| Monday, February 29, 2016 | 8 | Project Scope and Time Management | | Slides |
| Wednesday, March 2, 2016 | | | | |
| Monday, March 7, 2016 | 9 | Moving into Design Class and Method Design Stakeholder management | | Chapter 7,8 |
| Wednesday, March 9, 2016 | | | Individual Assignment 4 | |
| Monday, March 14, | | Spring Break **** No Class **** | | |

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| 2016 | | | | |
| Wednesday, March 16, 2016 | | | | |
| Monday, March 21, 2016 | | Data Management Layer Design | | |
| Wednesday, March 23, 2016 | 10 | Human Computer Interaction Layer – Design | Individual Assignment 5 Group Project 2 | Chapter 9, 10 |
| Monday, March 28, 2016 | | | | |
| Wednesday, March 30, 2016 | 11 | Software Quality Assurance Quality Management | Group Project 2 | Slides |
| Monday, April 4, 2016 | | | | |
| Wednesday, April 6, 2016 | 12 | Physical Architecture Design Project HR, Communication Management | Individual Assignment 6 | Chapter 11, slides |
| Monday, April 11, 2016 | | | | |
| Wednesday, April 13, 2016 | 13 | Project Risk Management Project Cost Management | | |
| Monday, April 18, 2016 | | | Group Project 3 | |
| Wednesday, April 20, 2016 | 14 | Project Presentations | | |
| Monday, April 25, 2016 | 15 | EXAM 2 – Part 1 | | |
| Wednesday, April 27, 2016 | | EXAM 2 – Part 2 | | |

Assignment Guidelines

- All reading is to be completed before class on the date posted.
- All assignments must be submitted at the beginning of class. Late assignments are NOT accepted. There will be a penalty of 20% for each day the submission is late for up to 3 days. Late submissions will not be accepted after 3 days from the due date.
- Written assignments must adhere to the APA style guide of formatting, citing, and referencing.
- Descriptions of assignments will be posted as they are assigned.
- The exams will consist of multiple choice, fill-in-the-blank, and short essay questions. Exam II is not comprehensive. Make-up exams will not be given unless there is a compelling situation.
- No extra credit assignments are available.

- General grading criteria can be found in eLearning. Assignment specific grading criteria will be included with the assignment instructions.
- **All assignments will be submitted via eLearning. I do *not* accept assignments via email. If you submit an incorrect assignment or need to resubmit your assignment in eLearning you will be allowed to resubmit as long as it is before the due date. Send me an email prior to the due date and I will clear your submission. Upon doing so, you will be able to resubmit.**

Grading

This course will feature a mix of activities and written and verbal assignments that may be in class or on campus. Homework will include readings from the text, assignments, and activities that usually require the student to complete some type of task. The instructor will provide detailed instructions as well as the grading criteria for each assignment. Please consult the course schedule for deadlines.

Grading Scheme

| Grade Component | Percentage |
|---------------------|------------|
| Assignments | 35% |
| Exams | 30% |
| Group Project | 30% |
| Class Participation | 5% |
| Total | 100% |

Scoring

| Final % Total | Letter Grade |
|----------------------|--------------|
| ≥ 93 | A+ |
| ≥ 90 and < 93 | A |
| ≥ 86 and < 90 | A- |
| ≥ 82 and < 86 | B+ |
| ≥ 78 and < 82 | B |
| ≥ 74 and < 78 | B- |
| ≥ 70 and < 74 | C+ |
| ≥ 66 and < 70 | C |
| ≥ 62 and < 66 | C- |
| ≥ 58 and < 62 | D+ |
| ≥ 54 and < 58 | D |
| < 54 | F |

Course & Instructor Policies

eLearning will be used for class content (e.g., class slides and assignment descriptions) and the recording of grades. Slides will be posted in before class is held. Class announcements (e.g., change in assignment

dates) will be sent to the student email on record in eLearning. It is the students' responsibility to regularly check their email accounts.

Instructor Response Policy: The instructor will respond to all student inquiries (emails, voice messages, etc.) within 48 hours (excluding holidays and weekends).

Attendance Policy/ Class Participation: Positive contributions to the class in terms of insightful comments or discussion (not just any relevant comment) in class at the appropriate times will be rewarded. Disruptive activities (using mobile phones in class, unnecessary talking with each other while the class is in progress, walking out of class abruptly while the class is in progress, walking into class late multiple times etc.) will be penalized. Barring these clearly positive and negative contributions to the class, one can expect to obtain 8 out of the 10 points meant for class participation. Attendance, by itself, is not directly given credit.

Late Work: All assignments are due at the beginning of class (not during and not after), on the specified date. I do not accept late assignments unless prior arrangements have been made with the instructor. A penalty of 20% per day (including weekends) will be assessed on late assignments for the first 5 days. After 5 days from the due date, late submissions will not be accepted.

Academic Integrity: The University is committed to academic excellence and expects academic honesty from all members of the University community and believes that it is essential for academic excellence and integrity. Academic honesty includes adherence to guidelines established by the instructor in a particular course for both individual and group work. It prohibits representing the work of others to be one's own (plagiarism); receiving unauthorized aid on an assignment (cheating); and using similar papers or other work products to fulfill the obligations of different classes without the instructor's permission. Penalties for academic dishonesty may include a grade of "F" on the work in question or for the course. In addition, any student engaged in academic dishonesty will be subject to disciplinary action. Please refer to the General Policies website (see below) for detailed information pertaining to academic dishonesty, including procedures for determining disciplinary action.

WORKING TOGETHER on Individual Assignments: This course will have a considerable amount of computing work for application assignments. Each student, is expected to do their own work on the "individual" assignments. Copying another student's work (computer files) or having another person do your work is scholastic dishonesty and will be dealt with accordingly.

Makeup Exams: I do not give make-up exams unless a student presents convincing proof of conditions that prevent him/her from taking the exam at the scheduled time.

Lap-tops: The use of lap-tops will not be permitted during the class or during the exams, unless there is a group project that needs to be presented in the class or during in class activities.

General Policies & Procedures

For information regarding general University policies and procedures, please go to <http://go.utdallas.edu/syllabus-policies>. These policies include the following:

- Technical Support

- Field Trip Policies, Off-Campus Instruction and Course Activities
- Student Conduct and Discipline
- Academic Integrity
- Copyright Notice
- Email Use
- Withdrawal from Class
- Student Grievance Procedures
- Incomplete Grade Policy
- Disability Services
- Religious Holy Days
- Avoiding Plagiarism