



Information Systems Department

Course Syllabus

IS394 - Requirements Engineering

Catalog Description:

This course is essential comprehensive coverage of the fundamentals of requirements engineering. Requirements engineering deals with the variety of prerequisites that must be met by a software system within an organization in order for that system to produce stellar results. This course presents a disciplined approach to the engineering of high-quality requirements. It serves as a helpful introduction to the fundamental concepts and principles of requirements engineering, and offers a comprehensive review of the aim, scope, and role of requirements engineering as well as best practices and flaws to avoid. The course also focuses on the state-of-the-art techniques for domain analysis, requirements elicitation, risk analysis, and conflict management. The course covers various forms of reasoning about models for requirements quality assurance, discusses the transitions from requirements to software specifications to software architecture. In addition, case studies are included that complement the many examples provided in the course in order to show how the described methods and techniques are applied in practical situations

Credit Hours:

3 Credit hours: 3 Lectures per week 0 Labs. per week 0 Recitation per week

Prerequisites:

IS200

Course Learning Outcomes:

1. Define the context of system engineering.
2. Describe the significance of requirement engineering.
3. Describe methods for requirement elicitation.
4. Evaluate alternative requirements options.
5. Write requirements documentation and modeling.
6. Analyze traceability matrix using requirement management tools
7. Function effectively on teams to accomplish a common goal
8. Present a topic in a compelling manner.



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Major Topics:

- Introduction to System Development Life Cycle
- Introduction to requirements engineering
- Requirements elicitation
- Requirements evaluation
- Requirement documentation and specification
- Requirements quality assurance
- Requirements evolution and traceability
- Requirements Management Tools
- Project Discussions

Text Books:

Requirements Engineering: From System Goals to UML Models to Software Specifications 1st Edition by Axel van Lamsweerde (Author) Publisher: Wiley; 1 edition (February 9, 2009) ISBN-10: 0470012706 ISBN-13: 978-0470012703



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Grading:

- The grading scale for this course is:
 - 95 - 100 A+ Passing
 - 90 - 94 A Passing
 - 85 - 89 B+ Passing
 - 80 - 84 B Passing
 - 75 - 79 C+ Passing
 - 70 - 74 C Passing
 - 65 - 69 D+ Passing
 - 60 - 64 D Passing
 - 0 - 59 F Failing
- Final grades will be determined based on the following components:
 - . 60% Semester Work
 - . 40% Final Exam
- Students may not do any additional work for extra credit nor resubmit any graded activity to raise a final grade.
- Late submissions will not be accepted for any graded activity for any reason.
- Students have one week to request the re-grading of any semester work.

Attendance Policy: Students should attend 80% of the overall course hours taught in the semester as per the University regulations.

If a student fails to achieve this portion, he/she shall not be allowed to appear in the final exam and shall be awarded "DN" grade and repeat the course.

Cheating and Plagiarism Policy:

The instructor will use several manual and automated means to detect cheating and/or plagiarism in any work submitted by students for this course.

When a student is suspected of cheating or plagiarism, the instructor raises the issue to the disciplinary committee.



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Communications: Registered students will be given access to a section of the Learning Management System (LMS) for this course. LMS will be used as the primary mechanism to disseminate course information, including announcements, lecture slides, assignments, and grades.

Communication with the instructor on issues relating to the individual student should be conducted using CIS email, via telephone, or in person.