Course Number: CIS 260
Course Title: Software Engineering
Number of Units: 4
Schedule: Three hours of lecture and one hour of discussion per week.
Prerequisite: CIS 101, 110

Catalog Description
Software life cycle processes including analysis, design, modifying and documenting large software systems. Topics include software development paradigms, system engineering, function-based analysis and design, and object-oriented analysis and design. Students will implement a working software system in a team environment.

Expanded Description
2. Management - Managing a RUP project
3. Planning
4. Metrics
5. Risks
6. Scheduling
7. Requirements Analysis
8. Modeling Notations - UML Class Diagrams
9. Analysis and Design - Object Oriented Analysis and Design
10. Architecture

Software
Rational Rose

Course Objectives and Role in Program
The objective of this course is to present Software Engineering as a systematic approach to the analysis, design, implementation and maintenance of software. Students will implement a working software system in a team environment. The knowledge of software engineering plays a significant role in almost all applications students develop for courses in the program.

Learning Outcomes
At the end of this course students will
- Identify and discuss the technical and engineering activities of producing a software product
- Select an appropriate design strategy and apply it to a particular software development project
- Describe issues, principles, methods and technology associated with software engineering theory and practices (e.g., planning, requirements engineering, design, coding, testing, quality assurance, and configuration management)
- Working as part of a team, use a software development process to develop a software product.
Method of Evaluation
Student learning will be evaluated on the basis of
- Completeness and quality of a term project developed in several stages
- Grade on midterm examination
- Grade on final examination
- Class participation.

The weight assigned to each element of evaluation will be determined by the instructor of the course on the first day of the class.

Required Textbook

Recommended Reference
"Software Engineering", by Ian Sommerville, Addison-Wesley, 2000

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