

ENSF 613

Software Requirement Analysis and Process Management

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- **Office Hours:**
 - Every Monday and Wed from 2:15 to 3:15 PM
 - Or, by appointment

What this course is about?

- This course focuses on principles of software development as an engineering product, process, project management (NOT a “Programming Course”). Summary of the course objectives:
 - Understanding software as an engineering product
 - An overview of software development process and lifecycle
 - Getting familiar with the basic operation of software project management
 - Understanding principles of knowledge elicitation and applying several elicitation techniques
 - Understanding and using different requirements analysis and modeling techniques
 - Developing functional requirements analysis artifacts
 - Developing object-oriented requirements analysis artifacts
 - Developing data-oriented requirements analysis artifacts
 - Introduction to software non functional requirements
 - Understanding software requirements specification (SRS) document
 - Understanding different development process models
 - Introduction to basic elements of software project management: Planning, feasibility and risk analysis, etc.

Pedagogic Approach

- We will use an Active Teaching & Learning approach:
 - Mondays most of the time in ST 129
 - Lectures
 - Class Exercises
 - Presentations
 - Wednesdays most of the time in ENC 201
 - Group Assignments
 - Term projects

Course Evaluation

- Final grades will be evaluated based on:
 - Assignments and Quizzes 10%
 - Two Term Projects 40% (20% each)
 - Midterm Test 20%
 - Final Test 30%
- 5% bonus mark will be awarded to the 3 or 4 top projects (second term project).
 - These groups will present and discuss the details of their project to the class.

Term Projects and Assignments

- Assignments Objective:
 - Practicing and learning software engineering tools, methods, and techniques.
- Term projects:
 - Two term projects:
 - First project allows you to practice methodologies that focuses on process and data.
 - Second project allows you to practice application of UML to analyze and model system's requirements.
 - Possible Projects:
 - Tenant/Landlord Property Rental App
 - Hotel Reservation App
 - Online Shopping App
 - GPS App
 - Smart Temperature App
 - Smart Sprinkler Controller System

Textbook

- There is no required textbook for this course. However the following textbooks are recommended references:
 - An Introduction to Requirements Engineering; Ian K. Bray, Addison Wesley.
 - Requirements Engineering (from system goals to UML models to software specification); Axel Van Lamsweerde, Wiley.
 - Software Engineering A Practitioner's Approach, Roger S. Pressman, Addison Wesley