CS 3332
Software Engineering

Project Guideline

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Project ideas

- The project must solve a real world problem (reduced to fit within the given timeframe). You can get an idea from the following list of potential projects. The list of course is not exhaustive and is merely meant to give you a starting point:Computer game
  - Application software
  - Computer games
  - Cafeteria management software
  - Multiple choice question bank and test.
  - Appointment books
  - Reservation systems (car rentals, hotel rooms, travel agencies...)
  - Notebooks
  - A Class Library with a small demonstration program.
  - Simulation of the auto beverage vending machine
  - ….

Implementation Language

- The implementation of the project is expected to be the Java language. This choice is **mandatory**. You can use any kind of existing code/libraries etc in order to connect your implementation with other components i.e databases, networks etc.

Project Milestones

- **Lectures 1-2:** The names of the group members and The project topic .
- **Lecture 3:** Complete the introduction on your project.
- **Lecture 5-6:** Description of the system and list of the use cases that your system will implement. These can be written informally, they need not to be written in UML notation.
  - Feasibility study
  - Requirements description
- **Lecture 7-8:** Specification document
- Lecture 9: Design Document
- Lecture 11-13: Compilable Code, Test Plan
- **Lecture 14:** Presentation of Project
- Lecture 15: As-built version of Specification Document, Design Document, Test Plan and Source Code

The Texts

- Textbook:

  [SE-8] Ian Sommerville, *Software Engineering, 8th Edition*, Addison-Wesley, 2006.

  Pressman, Roger Software Engineering: A Practitioner's Approach 7th Edition. Mc GrawHill
  ISBN: 0073375977Copyright year: 2010

- Lecture notes:
  - Presentations by the instructor
  - Notes you take in the classroom
  - Additional material as indicated later by the instructor

.The Course

- Chapters covered 1,4,6,7,8,10,12,14,17,18, 22 and 23.
- Student is encouraged to read all of the chapters.
- It is particularly important that the student place a great deal of emphasis in understanding the different design models and the sections covering requirements analysis and system specification.

Initial WWW Pointers

- Ian Sommerville's web-page for the 8th edition of his Software Engineering book:
  http://www.cs.st-andrews.ac.uk/~ifs/Books/SE8/
- The Software Engineering Institute, at Carnegie Mellon University: www.sei.cmu.edu
- The Object Management Group web-site: www.omg.org
- More will be indicated later

Grading Scheme..

- Tentative (slight modifications are possible):
  - Class Participation 5%
  - Assignments and Project 40%
  - Midterm test 25%
  - Final exam (comprehensive) 30%

  ➢TOTAL 100%

- Poor class participation will impact significantly your grade, beyond 5%

Grading Scale

- A 90 - 100
- B 80 - 89
- C 70 – 79
- D 60 – 69
- F 59 and below

Tentative schedule

Week	*Topic*	*Reading Assignment*
1	Introduction to Software Engineering	Chapter1, 2.2.1 – 2.2.5
2	Software Processes	Chapter 4
3	Software Requirements	Chapter 6
4	Requirements Engineering	Chapter 7
5	Review and Test	Test Chapters 1, 4,6, 7
6	System Models	Chapter 8
7	Midterm	

Tentative schedule

8	Object Oriented Design 1	Chapter 14
9	Object Oriented Design 2	Chapter 14
10	Rapid Development	Chapter 17
11	Software Reuse - Patterns	Chapter 18
12	Testing, Validation, Verification	Chapter 22/23
13	Review and Test	Test Chapter 8, 10, 14, 17, 18, 22, 23
14	Project Presentations	
15	Finals Week	Final Exam

Troy University Resources