CS 451
Software Engineering

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Course Information

- **Lecturer:** Yuanfang Cai
  - Office: UC 104
  - Email: yfcai@cs.drexel.edu
    - Subject line must start with “CS451:”
  - Class website:
  - Office hour: by appointment

- **Teaching Assistant:** TBD
  - Office Hour: CLC UC 147
  - Email:
Course Objectives

- Prepare you to be a real software engineer
- Prepare for your senior design project
- Concretely:
  - Understanding how industrial strength software gets built, software processes and process models.
  - Understanding and being able to apply project management concepts, such as Brook's law.
  - Being able to solicit, analyze, and document software requirements using standard format.
  - Understanding the role of prototyping in the software process.
  - Being able to use static and dynamic modeling techniques to analyze and model software design.
  - Understanding basic testing concepts and being able to use basic testing techniques.
Prerequisites

- Being able to program
- Understand UML modeling techniques
- Understand software design concepts, such as design patterns and information hiding
- Being able to work in groups
Course Information

- **Textbooks:**
  - "The Mythical Man Month" by F. Brooks.

- **Required Reading**
  - "Software Aging" by David Parnas.
  - "The Mythical Man Month" by Frederick P. Brooks.
Course Information

- Participation /Quiz (10 %)
  - Class Exercise, Reading Homework #1 and #2
- Midterm (20%)
- Group Homework (50%)
  - Homework #1: Software Requirement Spec (SRS) (20%)
  - Homework #2: Acceptance Test Plan (5%)
  - Homework #3: Design Doc(10%)
  - Homework #4: Implementation (15%)
- Project management: -10%
- Final Exam (20%)
- Group Peer Review: -10%
- Missing homework will lead to incompleteness
- Missing exams will lead to a Fail grade
Term Project

- Project Groups. *Find your peer group!*
  - 4 - 6 people/group
  - Start forming your groups, NOW!!!
  - Send me your group members by the end of today.

- Project Topic Selection
  - Any program of your choice
  - A project that can be *coded* in 2 weeks
  - Cannot be too trivial
  - With user interaction

- Project Topic Discussion
  - Next Tuesday
  - Each group presents:
    - What you are going to do.
    - The roles of each member
    - Project Schedule
Homework 1

- Form into groups:
  - Due Wednesday (Jan 9th) at noon.

- Read the following papers
  - (1) No Silver Bullet; (2) Mythical Man Month
  - In-class Quiz on these papers next Tuesday (Jan 15th)