605.601 Foundations of Software Engineering
Fall 2020

Module 00: Introduction

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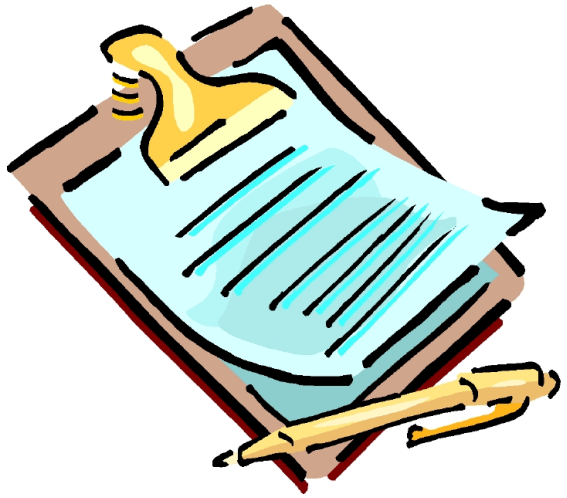
605.601 Foundations of Software Engineering

Topics for Discussion

- Introduction
  - Instructor
  - Students
- Course Expectations
- Course Goals and Objectives
- Course Schedule and Office Hours
- Participation
- Grading and Evaluation
- Assignments



Introduction

- Instructor

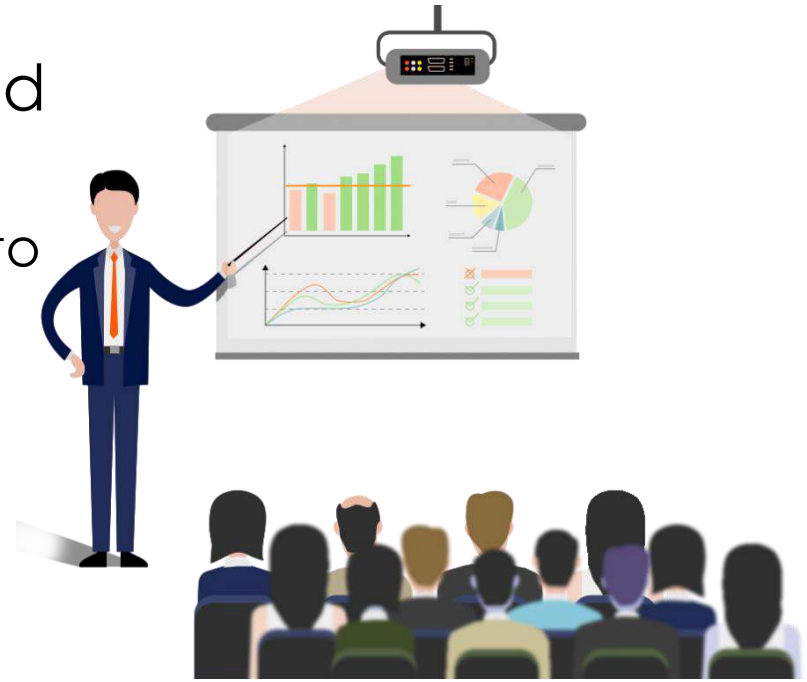
  Dr. Tushar Hazra
  Tel. (443)540-2230
  E-mail: thazra1@jh.edu
  tkhazra@gmail.com (personal)

- Students
  - Professional Background (experience with Software Engineering, if any)
  - Personal Interests (anything you feel like sharing with the class – optional)

Course Expectations

As an instructor, I expect students to:

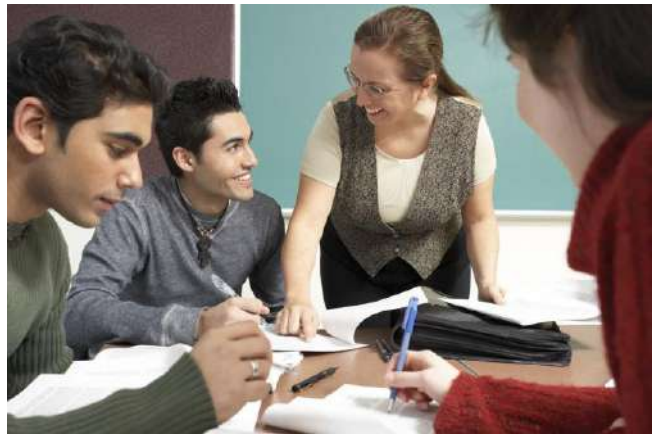
- have a thorough understanding of software engineering, its management fundamentals, and particularly software development processes
- use version control to manage changes to software and to deliverables; create software abstractions that facilitate testing
- write thorough unit and integration tests for software, and
- document the end products developed along with software (e.g., requirements, source code, and end-user documentation)



Course Expectations

Please write down your own expectations:

Hints (Five bullet points)



- Why are you taking this course?
- Do you have a specific topic or area of interest?
- What may benefit you at your work?
- What may benefit you in another course?
- Do you have any suggestions, thoughts or idea that you want to learn with your classmates as a team?

Course Goals and Objectives

The goal of this course is to provide:

- An overview of the fundamental concepts of software engineering
- Design and implementation of software systems
- Various organizational structures and life cycle processes
- Practical software development activities that emphasize the importance of design, code review, testing, and maintenance

Course Schedule

Week	Module	Topic(s)
1	00, 01	Introduction Fundamentals of Software and Software Engineering
3	01A 02	Evolution of Software Development Software Project Management
4	03	Requirements and Specification
5	04, 05, 05A	Design – Foundation; Object Orientation - UML
6	05	Design - Foundation
7	05	Design – Advanced Concepts
8		Mid-term Exam

Course Schedule - Continued

Week	Nodule	Topic(s)
9	06	Software Design – Advanced Concepts
10	07	Software Testing
11	08	Processes: Waterfall, Iterative and Incremental, Agile, and DevOps
12		Guest Lecture(s)
13		Thanksgiving
14	07A, 09	Software Maintenance, Estimation
15	10	Software Quality
16		Final Exam

Office Hours: One hour per week – using Zoom and Phone
Day and Time TBD

Participation

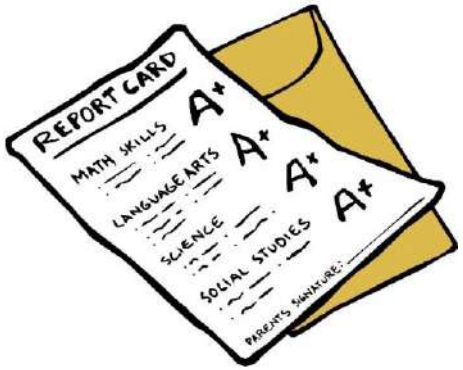
Essential and extremely important

- Discuss the fundamental and practical concepts
- Prepare for projects
- Introduce and cultivate topics of interest
- Raise your concerns
- Learn from each other

Grading and Evaluation

Grade

100 - 90 = A
<90 - 80 = B
<80 - 70 = C
<70 = F



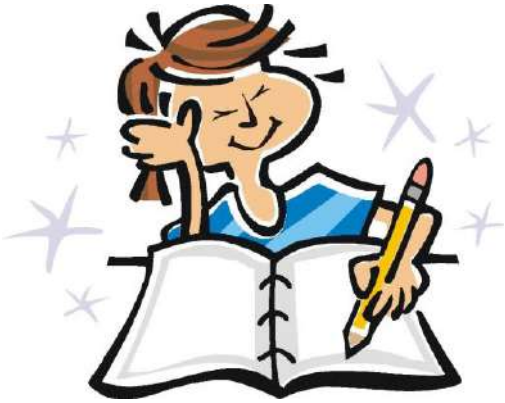
Evaluation Criteria

- Assignments, Projects and Quizzes 50%
- Mid-term Exam 20%
- Final Exam 20%
- Participation 10%

Assignments, Projects and Quizzes

Plan for this course

- Three assignments
- One project
- A set of four quizzes



You must:

- Perform assignments and projects in teams
- Take quizzes as an individual

Questions and Answers

More information about this course

- Access to Blackboard
- Course Material
- Additional Study Material
- Textbook

Software Engineering – Ian Sommerville – 10th Edition

My advice:

- Please call, email or text me with any questions you may have
- Take time to share and always collaborate with each other