Introduction to Software Engineering

Week 1: Course introduction





Teaching Staff

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Course Description [1]

- ☐ A general introductory course in software engineering.
- Introduces important concepts such as software processes and agile methods, and describes essential software development activities, from initial software specification through to system evolution.
- Develop software in multi-person teams by applying software engineering principles.



Course Description [2]

- Prerequisites
 - Programming skills
 - Data structure
- Topics covered
 - 1. Overview
 - 2. Software processes
 - 3. Project management
 - 4. Software requirements engineering
 - System modeling
 - 6. Architectural design
 - 7. Design and implementation
 - 8. User interface design
 - 9. Software testing
 - 10. Agile software development
 - 11. Revision



Course Description [3]

- After finishing the course, students can:
 - Understand basic concepts, principles, methods, and techniques in software engineering
 - Be able to apply requirements engineering concepts to define a system requirements
 - Be able to analyze and design a software system
 - Be able to design simple user interface
 - Be able to design and write a test plan and test cases for a software system
 - Be able to apply software testing techniques to test a software system
 - Be able to determine a suitable process for a software project based on its characteristics
 - Be able to practice teamwork



References

- Software Engineering, 10th edition, Ian Sommerville, Addison-Wesley, 2015 (8th and 9th editions are also fine).
- Software Engineering: A Practitioner's Approach, (7)8th edition, Roger S. Pressman, McGraw-Hill Higher Education, (2009)2014



Grading

□ Project 40%

☐ In-class participation 10%

□ 2 Quizzes 10%

☐ Final exam 40%

■ Note: Without final oral presentation for project → can not pass the course.



Course Requirements

- Project assignments
 - 5 students/team
 - Performs all activities of the software development lifecycle to deliver software
 - Deliver written and oral reports



Course Requirements

- Students are encouraged to ask questions in class, via forum, email, or in-person
- Late submission policy
 - 15% grade reduction for each day late
 - Zero grade for 4 or more days late
 - Exceptions are given for certain cases, e.g., illness



Academic integrity Policies

- Student may not be absence in 30% of number of sessions. If so, he/she will be prohibited from test or exam.
- Be punctual to come and leave the class.
- No cheating
 - ☐ Students are prohibited from copying from classmates, friends even if allowed; from the Internet without proper citation
 - Students are prohibited from allowing others to copy
- → 0 point for the whole course



Questions?