

Software Engineering

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IT 382
Software Engineering

Lecture 0



Course Outline

- Software engineering as an academic discipline that is responsible for educating the IT practitioners the skills required to develop, operate, and maintain software in a systematic, orderly and successful manner.
- This course covers the fundamentals of software engineering, including understanding system requirements, finding appropriate engineering compromises, effective methods of design, coding, and testing, team software development, and the application of engineering tools.

Learning Outcomes

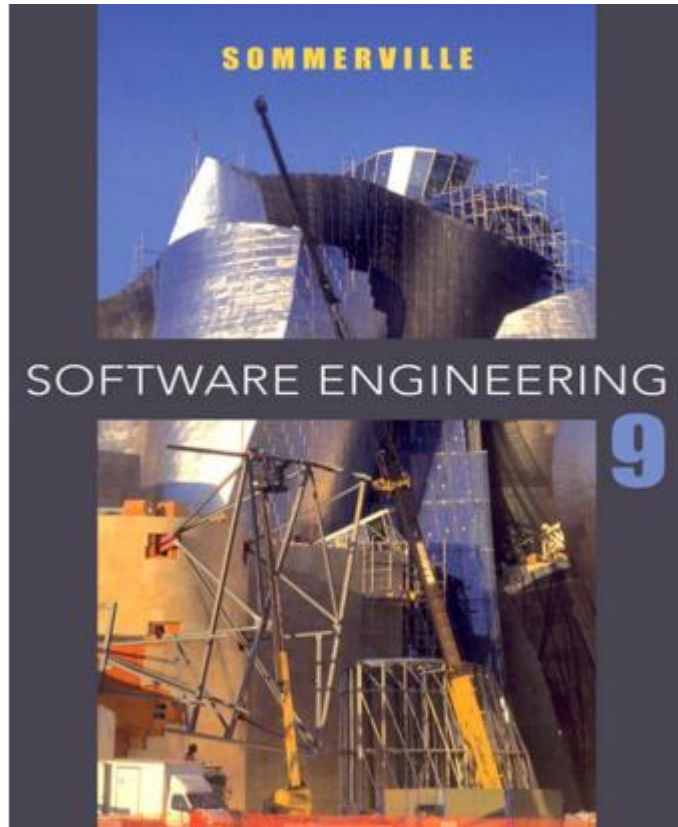
Upon completion of this course, the student will be able to:

- Explain different software processes and how to choose between them.
- Design in the large, including principled choice of a software architecture, the use of modules and interfaces to enable separate development, and design patterns.
- Elicit requirements from a client and specify them.
- Demonstrate various quality assurance techniques, including unit testing, functional testing, and automated analysis tools.
- Apply good coding practices, including documentation, contracts, regression tests and daily builds.

Week	Book Chapters	Topics
1		Orientation week
2	Chapter 1	Introduction to software engineering
3	Chapter 2	Software processes
4	Chapter 3	Agile software development
5,6	Chapter 4	Requirements engineering
7	Chapter 5	System modeling
8	Chapter 6	Architectural design
9,10	Chapter 7	Design and implementation
11	Chapter 8	Software testing
12		Revision
13		Final Exams



Course Plan



Reference

SOFTWARE ENGINEERING Ninth Edition, Ian Sommerville.

❖ 80 Marks

- 10 weekly short exams
- 8 Marks for each Exam.

❖ 20 Marks

- Final Examination



Assessment



Thank You

