Software Engineering

HUANG Jie
School of Software Engineering
Tongji University, 2022

同济大学 TONGJI UNIVERSITY

Course Objectives

- Master the key concepts, activities, processes, methods and models in Software Engineering.
- Practice of course project development, including but not limited the following tasks, requirement gathering & analysis, modelling, designing, coding, testing, configuration and team management, write down the relevant documents (e.g., requirements specification, software specification, source code, test cases etc.).
- Understand the relevant Knowledge Areas/Modules/Points of Software Engineering Body of Knowledge(SWEBOK V3.0).
- Building development team for course project. The team consists of at most 3 students (including 3 people).

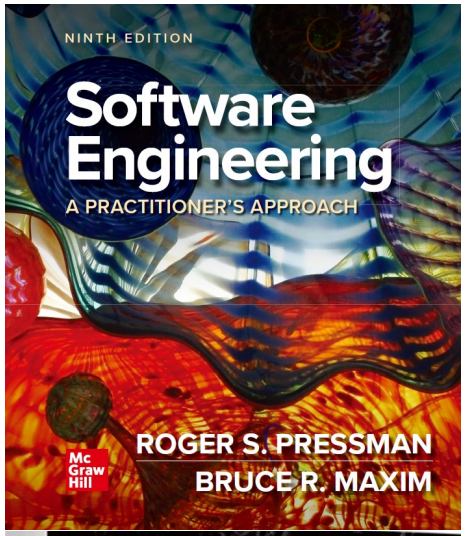
Course Outline

- Teaching Duration: Aug.31th 2022 to Dec.21th 2022.
- Final Exam Date: TBD, by teaching affairs administrator of SSE.
- Scoring (100%=40%+40%+20%)
  - Final Examination (**60**%, closed book examination);
  - Course project Design & Development (**20**%)
    (50% Documents + 50% on site Demo & Presentation)
  - Course Assignments and Attendance (**20**%)
- According to the university regulations, if one third or more of attendance are absent, the student will not be allowed to take the final examination and get **zero** score.

Schedule

No.	Week	Date	Contents	Teacher
1	1	22' 8/31	The Nature of Software	Huangjie
2	2	9/7	Software Engineering & its discipline	Huangjie
3	3	9/14	Software Process Structure	Huangjie
4	4	9/21	Process Models	Huangjie
5	5	9/28	Agile Development	Huangjie
6	6	10/5	Human Aspects of Software Engineering & TEST I	Huangjie
7	7	10/12	Principles that guide practice	Huangjie
8	8	10/19	Understanding Requirements	Huangjie
9	9	10/26	Requirement Modeling I	Huangjie
10	10	11/2	Requirement Modeling II	Huangjie
11	11	11/9	Requirement Modeling III	Huangjie
12	12	11/16	Requirement Analysis and Specification & TEST II	Huangjie
13	13	11/23	Software Design Concept I	Huangjie
14	14	11/30	Software Design Concept II	Huangjie
15	15	12/7	Component Level Design I	Huangjie
16	16	12/14	Component Level Design II	Huangjie
17	17	12/21	Review and Q&A	Huangjie
18	18	TBD	Final Examination	Huangjie

Textbook

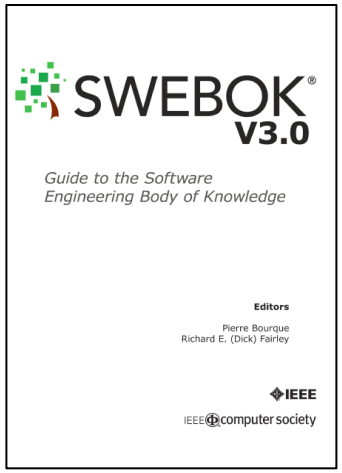


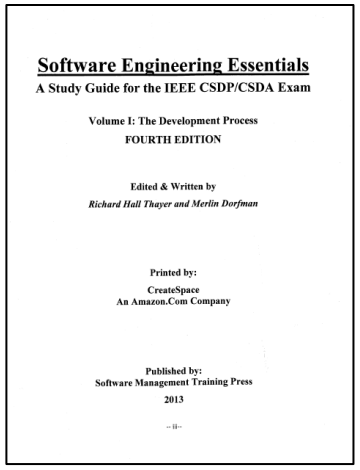
- Roger S. Pressman, et al.
  Software Engineering: A Practitioner's Approach
  9th Edition.
  McGraw-Hill Education. 2019.

- Roger S. Pressman, et al.
  王林章 等译.
  软件工程 实践者的研究方法, 第9版
  北京：机械工业出版社，2021.

Reference Books and Materials

- Shari Lawrence Pfleeger et al.
  软件工程 4th Edition. 北京，人民邮电出版社, 2019.
- ACM/IEEE.
  Guide to the Software Engineering Body of Knowledge (3rd) 2014.
  http://www.computer.org/portal/web/swebok/swebokv3.
- R.H.Thayer and M.Dorfman.
  Software Engineering Essentials vol.1-vol.3.
  Software Management Training.2013.





Teacher's Info.

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- **Links** to the course materials:
  - http://canvas.tongji.edu.cn/courses/64341

Course's Info.

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