

# Software Engineering

HUANG Jie

School of Software Engineering

Tongji University, 2023



同濟大學  
TONGJI UNIVERSITY

# Course Objectives

- Master the key concepts, activities, processes, methods and models of Software Engineering.
- Practice of course project design & development, including but not limited the following tasks, requirement understanding & analysis, software design & modelling, configuration and team management, write down the relevant documents (e.g., feasibility study, requirements specification, software design 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 4 students (including 4 people).

# Layout

- Course Duration: Sep.11<sup>th</sup> 2023 to Jan.4<sup>th</sup> 2024.
- FinalExam Date: TBD, by teaching affairs administrator of SSE.
- Scoring (100%=10%+10%+20%+60%)
  - Final Examination (60%, close-book written examination);
  - Course project Design & Development (20%)  
(50% Documents + 50% on site Demo & Presentation)
  - Course Assignments (10%)
  - Course Attendance (10%)
- According to the university regulations, if one third(1/3) or more of attendance are absent, the student will not be allowed to take the final examination and will get a zero score.

# Course project

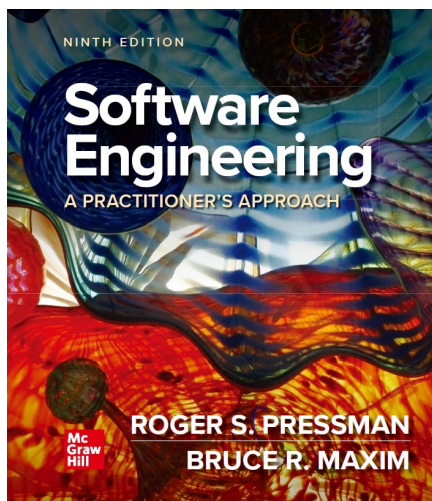
- Innovation and entrepreneurship projects for college students, such as national innovation projects and shanghai innovation projects;
- Participate in real projects of the mentor's scientific research group, various vertical scientific research projects, and horizontal scientific research projects;
- College student competitions at provincial and ministerial levels and above.
- Regarding course projects, please pay attention to canvas's announcements in time.

# Syllabus

No.	Week	Date	Contents	Teacher
1	1	23' 9/11	Introduction of Software Engineering	Huangjie
2	2	23' 9/18	General Principles of Software Engineering	Huangjie
3	2	23' 9/20	Software Development Process I	Huangjie
4	3	23' 9/25	Software Development Process II	Huangjie
5	4	23' 10/2	Software Development Process III	Huangjie
6	4	23' 10/4	Test I: software process & models	Huangjie
7	5	23' 10/9	Recommended Process Models	Huangjie
8	6	23' 10/16	Human Aspects of Software Engineering	Huangjie
9	6	23' 10/18	Principles that guide practice	Huangjie
10	7	23' 10/23	Understanding User Requirements I	Huangjie
11	8	23' 10/30	Understanding User Requirements II	Huangjie
12	8	23' 11/1	Requirement Analysis	Huangjie
13	9	23' 11/6	Requirement Modeling - Use case I	Huangjie
14	10	23' 11/13	Requirement Modeling - Use case II	Huangjie
15	10	23' 11/15	Requirement Modeling - Class	Huangjie
16	11	23' 11/20	Requirement Modeling - Function model	Huangjie
17	12	23' 11/27	Requirement Modeling - Behavior model	Huangjie
18	12	23' 11/29	Requirement Specification	Huangjie
19	13	23' 12/4	Test II: Software Requirement	Huangjie
20	14	23' 12/11	Software Design Concept	Huangjie
21	14	23' 12/13	Software Architecture Design	Huangjie
22	15	23' 12/18	Component Level Design: OO method	Huangjie
23	16	23' 12/25	Component Level Design: Structure method	Huangjie
24	16	23' 12/27	Use Interface and WebApp Design	Huangjie
25	17	24' 1/1	Review and Q&A	Huangjie
26	18	TBD	Final Examination	Huangjie



# Textbook



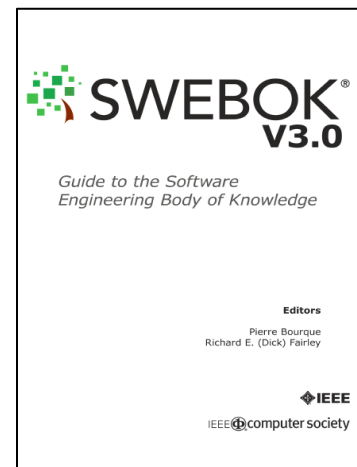
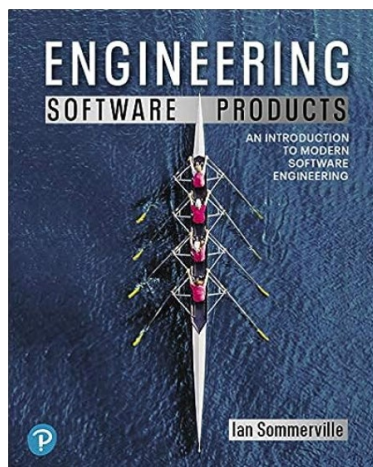
- Roger S. Pressman, et al.  
**Software Engineering: A Practitioner's Approach**  
9th Edition.  
McGraw-Hill Education. 2019.



- 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

- **Shari Lawrence Pfleeger et al.**  
软件工程 4th Edition. 北京, 人民邮电出版社, 2019.
- **Ian Sommerville**  
**Software Engineering Software Products 2021**  
现代软件工程: 面向软件产品. 北京, 机械工业出版社, 2021
- **ACM/IEEE.**  
**Guide to the Software Engineering Body of Knowledge (3rd) 2014.**  
<http://www.computer.org/portal/web/swbok/swbokv3>.



# Teacher's Info.

- **Name:** 黄杰 (HUANG Jie)
- **Office:** Room514, JiShi Building, JiaDing Campus, TongJi Uni.
- **Email:** [huangjie@tongji.edu.cn](mailto:huangjie@tongji.edu.cn)
- **Mobilephone:** 13501932599



# Course's Info.

Links to the course materials:

<https://canvas.tongji.edu.cn/courses/77941>

<https://canvas.tongji.edu.cn/courses/77942>

≡ [软件工程 42034202](#) > 大纲

2023-2024 学年 第1 学期

## 软件工程 42034202

[跳至今天](#)

[编辑](#)

课程状态

☐ 未发布

☒ 已发布

主页

公告

作业

讨论

评分

人员

页面

文件

大纲

结果

测验

单元

测验存档

视频

课堂录播

云课堂

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12	23' 11/27	Requirement Modeling - Behavior model
12	23' 11/29	Requirement Specification

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[6d 学生视图](#)

[查看课程分析](#)

九月 2023												
28	29	30	31	1	2	3						
4	5	6	7	8	9	10						
11	12	13	14	15	16	17						
18	19	20	21	22	23	24						
25	26	27	28	29	30	1						
2	3	4	5	6	7	8						

作业所占比率未确定。



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