投票 最多可选1项

设置

Welcome! Are you ready?

A Yes

B No

Tencent meeting ID:

160-550-267

提交

Software Engineering

Department of Software
School of Computer Science

Ning Li (李宁)

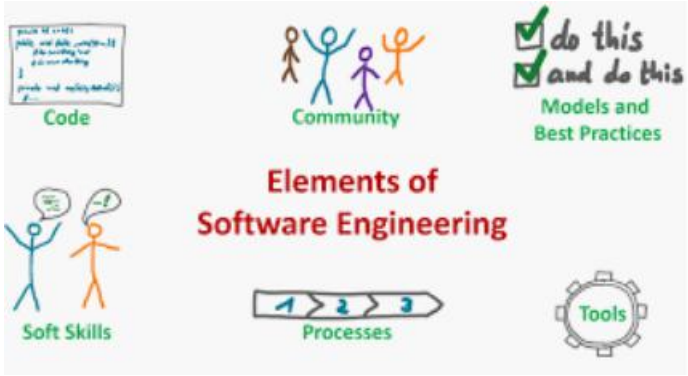
Office: Room 324 (Building of CS)
Email: lining@nwpu.edu.cn

Online Teaching Platform

- **WeChat Group:** communication for our class
- **Tencent meeting:** online class: 160-550-267
- **Rain Classroom:** combined with Tencent meeting
- **Email: assignment:** 李宁 lining@nwpu.edu.cn,
  杨雨晨(TA) 480755534@qq.com
- **Could storage(Weiyun):** slides & video
  https://share.weiyun.com/aEtJu4rQ password: se2022

Course Introduction

Software Engineering (SE)



- **Prerequisite Course**

  Programming Language, Data structure

- **Class hour: 32**

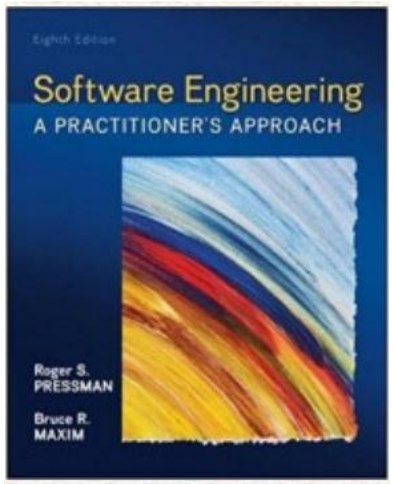
  Theoretical lessons ： 32 Hour

Bibliographical Book

- Textbook

  Software Engineering A Practitioner's Approach

  (8th Editon)



- Reference

1. Software Engineering Theory and Practice (4th Edition)
2. The mythical man-month，

   Frederick P. Brooks （expand）

Evaluation and Grading

- Final exam(70%)
- Assignment(20%)
- Attendance, quiz (10%)

Online resource (English)

- **Video**
  - **University of California, Berkeley , CS169 Software Engineering**

    https://www.bilibili.com/video/BV1VJ41197Nq?from=search&seid=4609079248305802065&spm_id_from=333.337.0.0

  - **CMU, 17-445, Software Engineering for AI-Enable systems**

    https://www.bilibili.com/video/BV1qA411n7X5?from=search&seid=9981685048202503917&spm_id_from=333.337.0.0

  - **SUSTech, Software Engineering (CS304-2021)**

    https://www.bilibili.com/video/BV1g54y187d9/?spm_id_from=333.788.recommend_more_video.4

  - **Cornell, Software Engineering**

    http://cs.cornell.edu/courses/cs5150/2018sp/lectures

Online resource (Chinese)

- MOOC： 中国大学MOOC，学堂在线等

清华大学 软件工程

https://www.bilibili.com/video/BV1eE411V7Cr?from=search&seid=5876693840749219782&spm_id_from=333.337.0.0

北京大学 软件工程

https://www.bilibili.com/video/BV1i44y1e7uH?from=search&seid=13501260680281725151&spm_id_from=333.337.0.0

东北大学 软件工程

https://www.icourse163.org/learn/NEU-1001812013?tid=1003271008#/learn/annour

What is expected from you

- Attendance
- Be active and think critically
- Practice what you have learnt
- Study for tests and exams

Software Engineering

投票 最多可选1项

设置

Have you ever developed any software?

A Yes

B No

C Uncertain

提交

Why to learn this course

Let’s watch a welcome video!

主观题 10分

设置

What will you learn in this course according to this video?

正常使用主观题需2.0以上版本雨课堂

作答

Why to learn this course

- As software engineer
  - How to modeling, design, coding, testing
  - How to communicate with customer
  - How to manage software development
  - How to ensure software quality

- As researcher

  To know some research questions in SE

Not just to be a software engineer!

Content Overview

Part 0 Introduction

Part1 Process (Manage)

Part2 Modeling

Part3 Quality Management (including testing)

Part 4: Managing Software Projects (Manage)

Content Detail (1)

Part 0 Introduction

Ch1:The Nature of Software *
Ch2: Software Engineering *

Part1 Process

Ch3: Software Process Structure **
Ch4: Process Models ****
Ch5: Agile Development ***

Part2 Modeling

Ch8: Understanding Requirements *
Ch9: Requirements Modeling: Scenario-based ****
Ch10: Requirements Modeling: Class-based ***
Ch11: Requirements Modeling: Behavior, Patterns, and WebApps **
Ch12：Design Concepts **
Ch13：Architectural Design ***
Ch14：Component-Level Design ****
Ch15：User Interface Design ***
Ch15' Writing code (supplement) ***

Content Detail (2)

Part 3 Quality Management

Ch19：Quality Concepts **

Ch21：Software Quality Assurance ***

Ch22：Software Testing Strategies **

Ch23：Testing Conventional Applications ****

Ch24：Testing Object-Oriented Applications ***

Ch29：Software Configuration Management **

Part 4: Managing Software Projects

Ch31: Project Management Concepts **

Ch32: Process and Project Metrics ***

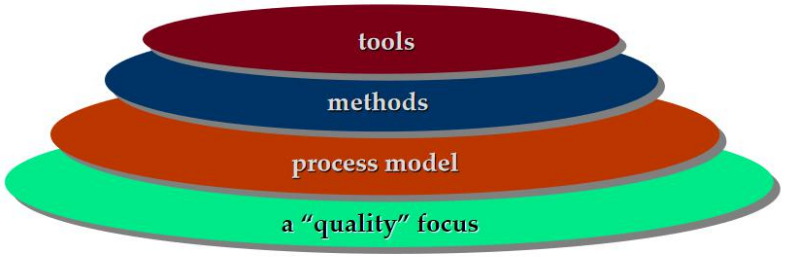
Ch33: Estimation for Software Projects ***

Ch34: Project Scheduling ***

Ch35: Risk Management **

Ch36: Maintenance and Reengineering **

Course Objectives



Software Engineering

- Know core **concepts** of SE
- Be able to apply the common software developing and process managing **technologies** and **methods** in the software development project
- Be able to use some common software engineering **tools**

Schedule (1)

Week	Day	Date	Chapter	Title	Slides	Hour
1	Monday	2022/1/10	Chapter 1-2	—Introduction 9 Ch1:The Nature of Software 12 Ch2:Software Engineering 16	37	2
1	Wednsday	2022/1/12	Chapter 3-6	—Process Ch3: Software Process Structure 7 Ch4: Process Models 14 Ch5: Agile Development 15 Ch6: Human Aspects of Software Engineering (Reading)15	36+15	2
2	Monday	2022/1/17	Chapter 7-9	—Modeling (Requirements) Ch7: Principles that Guide Practice 25 Ch8: Understanding Requirements 19 Ch9: Requirements Modeling: Scenario-based 18	37	2
2	Wednsday	2022/1/19	Chapter 10-11	—Modeling (Requirements) Ch10:Requirements Modeling: Class-based 10 Ch11:Requirements Modeling: Behavior, Patterns, and WebApps 28	38	2
3	Monday	2022/1/24	Chapter 12	—Modeling (Design) Ch12: Design Concepts 40	40	2
3	Wednsday	2022/1/26	Chapter 13	—Modeling (Design) Ch13: Architectural Design 24	24	2
Winter Holiday?						

Schedule (2)

4	Monday	?	Chapter 14	—Modeling (Design) Ch14: Component-Level Design 36	36	2
4	Wednsday	?	Chapter 15-18	—Modeling (Design) Ch15: User Interface Design 26 Ch16: Pattern-Based Design 28 Ch17: WebApp Design 27 Ch18: MobileApp Design 15 —Implement Writing code (supplement)	26+15	2
5	Monday	?	Chapter 19-21	—Quality Management (Quality Concepts) Ch19: Quality Concepts 22 Ch20: Review Techniques 22 Ch21: Software Quality Assurance 13	35	2
5	Wednsday	?	Chapter 22	—Quality Management (testing) Ch22: Software Testing Strategies 35		
6	Monday	?	Chapter 23	—Quality Management (testing) Ch23: Testing Conventional Applications 31	31	2
6	Wednsday	?	Chapter 24-26	—Quality Management (other) Ch24: Testing Object-Oriented Applications 13 Ch25: Testing Web Applications 26 (reading) Ch26: Testing Mobile Applications 9 (reading)	26	2
7	Monday	?	Chapter 29-31	—Planning and Managing the Project Ch29: Software Configuration Management 27 Ch30: Product Metrics 24 (reading) Ch31: Project Management Concepts 18	38	2
7	Wednsday	?	Chapter 32-33	—Planning and Managing the Project Ch32: Process and Project Metrics 20 Ch33: Estimation for Software Projects 28	28	2
8	Monday	?	Chapter 34-35	—Planning and Managing the Project Ch34: Project Scheduling 17 Ch35: Risk Management 23	40	2
8	Wednsday	?	Chapter 36	Managingthe Project Ch36: Maintenance and reengineering 17 Delivering (supplement) 10 Future & Reiew	27	2

Question

- Now, what kind of software would you like to develop?

  Please think the real requirements!

  Let us discuss next time!

coronavirus

THE END