

Software Engineering (CS 454/554)

Ref. No: 40758/40785

Winter 2024

Course Objective

- To survey the field of software engineering and to study the methods, techniques, and theory of the state-of-the-art software development practice.

Class Homepage

- <http://web.cecs.pdx.edu/~xie/se-w24/se-w24.htm>

Instructor

- **Prof. Fei Xie**
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Office Hours

- By appointment

Prerequisites:

- Interests in learning software engineering

Meeting Time and Location

- M/W 11:30-1:20PM, FAB 150 / Hybrid

Textbooks

- **Recommended:** Ravi Sethi, *Software Engineering: Basic Principles and Best Practices*.

Grading

- **Homework:** 10%
 - One assignment per week
- **Exam:** 40%
 - Final Exam at 1230-1420PM on Mar 21.
- **Individual term project:** 20%
 - A list of topics for term projects will be announced on Feb. 14.
 - The term project report is due on Mar. 13.
- **Group project and class participation:** 30%
 - Group programming project will be carried out throughout the term.
 - Project consists of four scrum sprint each of which is two weeks.

Class Schedules

	Dates	Topics	Readings	Dues
Week 1	Jan. 8	Introduction	Chapter 1	
	Jan. 10	Software Development Processes	Chapter 2	
Week 2	Jan. 15			
	Jan. 17		Group Project Kick Off on Zoom	
Week 3	Jan. 22	User Requirements	Chapter 3	
	Jan. 24			
Week 4	Jan. 19	Requirements Analysis	Chapter 4	
	Jan. 31			Group Project Demo 1 on Zoom
Week 5	Feb. 5	User Cases	Chapter 5	
	Feb. 7			
Week 6	Feb. 12	Design and Architecture	Chapter 6	
	Feb. 14			Group Project Demo 2 on Zoom Term Project Topic Announcement
Week 7	Feb. 19	Architecture Patterns	Chapter 7	
	Feb. 21			
Week 8	Feb. 26	Static Checking	Chapter 8	
	Feb. 28			Group Project Demo 3 on Zoom
Week 9	Mar. 4	Testing	Chapter 9	
	Mar. 6			
Week 10	Mar. 11	Quality Metrics	Chapter 10	
	Mar. 13			Group Project Demo 4 on Zoom Term Project Due

(This schedule is subject to changes according to the need of the class. All suggested readings are from the recommended textbook, *Software Engineering: Basic Principles and Best Practices* by Ravi Sethi)

Academic Integrity

- Academic misconducts will be handled according to the rules of the Department of Computer Science, Maseeh College of Engineering and Computer Science, and Portland State University.