

Software Engineering (CS 454/554)

Ref. No: 10758/10783

Fall 2025

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-f25/se-f25.htm>

Instructor

- Prof. [Fei Xie](#)
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Office Hours

- By appointment

Prerequisites:

- Interests in learning software engineering

Meeting Time and Location

- T/TH 9:00-10:40PM, Online – Scheduled Meetings on Zoom

Textbooks

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

Grading

- **Homework:** 10%
 - One assignment per week
- **Exam:** 40%
 - Final Exam at 9:00-10:50PM on Dec. 9.
- **Individual term project:** 20%
 - A list of topics for term projects will be announced on Nov. 6.
 - The term project report is due on Dec. 4.
- **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	Sep. 30	Introduction	Chapter 1	
	Oct. 2			
Week 2	Oct. 7	Software Development Processes	Chapter 2	
	Oct. 9			Group Project Kick Off
Week 3	Oct. 14	User Requirements	Chapter 3	
	Oct. 16			
Week 4	Oct. 21	Requirements Analysis	Chapter 4	
	Oct. 23			Group Project Demo 1
Week 5	Oct. 28	User Cases	Chapter 5	
	Oct. 30			
Week 6	Nov. 4	Design and Architecture	Chapter 6	
	Nov. 6			Group Project Demo 2 Term Project Topic Announcement
Week 7	Nov. 11	Architecture Patterns	Chapter 7	
	Nov. 13			
Week 8	Nov. 18	Static Checking	Chapter 8	
	Nov. 20			Group Project Demo 3
Week 9	Nov. 25	Testing	Chapter 9	
	Nov. 27			(Thanksgiving Day; No Class)
Week 10	Dec. 2	Quality Metrics	Chapter 10	
	Dec. 4			Group Project Demo 4 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.