San José State University
Department of Computer Science
CS 160, Software Engineering, Section 3, Fall 2022

Course and Contact Information

Instructor:	Kenward Tsang
Office Location:	TBD (by appointment)
Email:	kenward.tsang@sjsu.edu
Office Hours:	MoWe 8:45 PM - 10:00 PM (by appointment)
Class Days/Time:	MoWe 7:30 PM - 8:45 PM
Classroom:	Duncan Hall 351
Prerequisites:	CS 146, CS 151 (with a grade of "C-" or better in each); CS 100W (with a grade of "C" or better) or instructor consent

Course Description

Software engineering principles, software process and process models, requirements elicitation and analysis, design, configuration management, quality control, project planning, social and ethical issues. Required team-based software development, including written requirements specification and design documentation, oral presentation, and tool use.

Course Format

This course is offered in-person with a designated day/time and location, with additional online material. Students are expected to bring their computer to every class meeting in order to engage in class activities. A reliable internet connection for the use of Canvas and additional online resources is required.

Course Materials

Resources such as the syllabus, handouts, notes, assignment instructions, and more can be found on Canvas. Students are responsible for regularly checking Canvas (or other communication systems as indicated by the instructor) to learn of any course updates.

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

- CLO 1 - Identify software project lifecycle components.
- CLO 2 - Apply Agile techniques in an industry setting.
- CLO 3 - Create features, scenarios, and stories for project planning.
- CLO 4 - Design architecture in accordance with key system attributes.
- CLO 5 - Utilize developer operations and code management.
- CLO 6 - Exercise reliable programming and testing methodology throughout a project.
- CLO 7 - Understand common privacy issues.

Required Texts/Readings

Textbook

Engineering Software Products: An Introduction to Modern Software Engineering
by Ian Sommerville

Pearson; 1st edition (May 19, 2019)
ISBN-13: 978-0135210642
ISBN-10: 013521064X

Course Requirements and Assignments

"Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally three hours per unit per week) for instruction, preparation/studying, or course related activities, including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus." — University Policy S16-9

Group Project

The group project is weighed foremost as the primary focus of this course. Although classified as one assignment, the project will be split into a variety of smaller assignments and participation goals. These assignments will be duly announced alongside the project life cycle.

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Final Exam

The final exam is a cumulative test of a student's knowledge in regards to the course lecture slides. The exam format will be question-based and closed-book. All questions will be derived from the lecture slides. A retrospective is included where students will evaluate their project peers. Student retrospective feedback will affect their team members' final exam grade (at the instructor's discretion).

Grading Information

Students' individual grades will be weighted as follows:

Assignments	**Points**	**Percentage**
Group Project	700	70%
Final Exam	250	25%
Miscellanea	50	5%
Total	**1000**	**100%**

Grade	**Points**	**Percentage**
A plus	960 to 1000	96 to 100%
A	930 to 959	93 to 95%
A minus	900 to 929	90 to 92%
B plus	860 to 899	86 to 89 %
B	830 to 859	83 to 85%
B minus	800 to 829	80 to 82%
C plus	760 to 799	76 to 79%
C	730 to 759	73 to 75%
C minus	700 to 729	70 to 72%
D plus	660 to 699	66 to 69%
D	630 to 659	63 to 65%
D minus	600 to 629	60 to 62%
F	599 points or lower	0 to 59%

No extra credit options are available for this course. Late work will not be accepted unless negotiated with the instructor before the due date. A letter grade is earned by meeting the CLOs through participating and completing the required course activities.

University Policies

Per University Policy S16-9, relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on the Syllabus Information webpage. Make sure to visit this page to review and be aware of these university policies and resources.

COVID-19 and Monkeypox

Students registered for a College of Science (CoS) class with an in-person component should view the CoS COVID-19 and Monkeypox Training slides for updated CoS, SJSU, county, state and federal information and guidelines, and more information can be found on the SJSU Health Advisories website. By working together to follow these safety practices, we can keep our college safer. Failure to follow safety practice(s) outlined in the training, the SJSU Health Advisories website, or instructions from instructors, TAs or CoS Safety Staff may result in dismissal from CoS buildings, facilities or field sites. Updates will be implemented as changes occur (and posted to the same links).

Course Schedule

Week	Date	Topic	Note
2	08/22	Course Introduction	First day of instruction
	08/24	[Lecture] Software Products	
3	08/29	[Lecture] Agile Software Engineering	
	08/31	[Lecture] Features, Scenarios, & Stories	
4	09/05	Labor Day	No class scheduled
	09/07	Group Project Introduction	
5	09/12	Group Project Adoption	
	09/14	[Lecture] Software & Microservices Architecture	
6	09/19	[Lecture] DevOps & Code Management	
	09/21	[Lecture] Reliable Programming & Testing	
7	09/26	Working Session 1	
	09/28	Checkpoint 1	
8	10/03	Working Session 2	
	10/05	Checkpoint 2	Delivery 1
9	10/10	Working Session 3	
	10/12	Checkpoint 3	
10	10/17	Working Session 4	
	10/19	Checkpoint 4	
11	10/24	Working Session 5	
	10/26	Checkpoint 5	
12	10/31	Working Session 6	
	11/02	Checkpoint 6	Delivery 2
13	11/07	Working Session 7	
	11/09	Checkpoint 7	
14	11/14	Working Session 8	
	11/16	Checkpoint 8	
15	11/21	Mock Exam	
	11/23	Non-Instructional Day	No class scheduled
16	11/28	Final Presentations 1	
	11/30	Final Presentations 2	
17	12/05	Final Presentations 3	Last day of instruction
	12/07	Study/Conference Day	No class scheduled
18	12/12	Final Exam	7:45 PM - 10:00 PM