

Software Engineering

CS 160

Fall 2026 Section 05 In Person 3 Unit(s) 08/19/2026 to 12/07/2026 Modified 08/20/2026

Contact Information

Instructor(s): Dominic Abucejo

Office Location: Onsite office location (DH 212)

Email: dominic.abucejo@sjsu.edu

Office Hours:

- Days & Hours:
 - Tuesday/Thursday
 - 6:45am to 7:15am (at the office or via Zoom)
 - Tuesday
 - 11:45am to 12:30pm (Zoom meeting only)
 - Zoom link: <https://sjsu.zoom.us/j/5969483607>
 - Please inform the professor (via email) if you are interested in a Zoom meeting call.

Course Information

Course: CS 160 Section 05 (course # 50027)

Class Days/Time: Monday/Wednesday from 7:30am to 8:45am

Instruction Mode: In-Person only

Classroom: Science Building (SCI), Room 311

Prerequisites:

- CS 146 & CS 151 (with a grade of "C-" or better in each)
- CS 100W (with a grade of "C" or better).

** Note 1: Students not have completed these prerequisite courses cannot enroll in this course*

** Note 2: Proof of prerequisite course completion is required*

Course Description and Requisites

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.

Prerequisite(s): 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. Computer Science, Forensic Science: Digital Evidence, or Software Engineering Majors only.

Letter Graded

* Classroom Protocols

Collaboration Policy

Collaboration is encouraged, but you must cite the classmates you work with and you cannot copy their work (unless it is a team/group assignment). This includes sharing large blocks of code on discord and/or other similar social communication platform, or via document sharing services such as Google Drive, and other similar sites.

Cheating

- Cheating is prohibited on all course submission items e.g. assignments, quizzes, exams, etc.
- Any cheating will result in zero points for the related submission (e.g. assignment, quiz, exam) and a second infraction of cheating will result in a failure (grade F) in the course.
- All incidents of cheating will be reported to the University per [University Policy F15-7](#).

Classroom Protocol

- You are expected to arrive at class on time
- Class attendance:
 - All students must be present in class on days when there are scheduled quizzes, exams, in-class assignments, and presentations in order to receive points for any of these class activities.
 - Make up work will not be granted to any student who missed these activities unless there is a formal and valid excuse provided by the student and sent to the professor before the start of the class activities.
- Have your laptop available for each class for group work, quiz, and exam.
- Bring extra pen and paper
- When sending an email:
 - Write who you are

- What class/section and/or day/time you are part of
 - Don't just write a blanket sentence e.g. What will be on the quiz? (with no reference to what class you are in). Please be specific.
- All mobile phones should be set to silent mode
- For all unrelated conversations while the professor is lecturing are to be discussed outside of the classroom.
- Refrain from using any electronics except for ones that will help you take notes
- Do NOT share any course material publicly (on Canvas, GitHub, etc.) without permission, including but not limited to lecture notes, lecture videos, passwords, homework/exam solutions, and class meeting links.
- A student is expected to be trustworthy, helpful, friendly, courteous, and kind.

Program Information

Diversity Statement - At SJSU, it is important to create a safe learning environment where we can explore, learn, and grow together. We strive to build a diverse, equitable, inclusive culture that values, encourages, and supports students from all backgrounds and experiences.

Course Learning Outcomes (CLOs)

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

CLO 1 – Understand the different stages of the software development lifecycle.

CLO 2 – Apply agile practices throughout software development.

CLO 3 – Understand what features, scenarios, and stories are for project planning.

CLO 4 – Prepare specifications and documentation for a software project.

CLO 5 – Design and implement a product from end to end.

CLO 6 – Understand what it means to perform reliable programming

CLO 7 – Understand the importance of testing to ensure excellent product quality

CLO 8 – Identify common security and privacy concerns.

CLO 9 – Understand what is expected when working as a software engineer

Course Materials

Required Texts/Readings

Textbook:



Sommerville, Ian. **Engineering Software Products: An Introduction to Modern Software Engineering**. 1st Edition. Pearson Education, 2020.

ISBN-13: 978-0135210642

ISBN-10: 013521064X

*Note: Please pay attention to the title and author when referring to the book

You can purchase the eText from the Pearson's publisher website (www.pearson.com):

Link to the book: <https://www.pearson.com/en-us/subject-catalog/p/engineering-software-products-an-introduction-to-modern-software-engineering/P200000003243/9780137524846>

Readings

Other readings may be assigned from articles and journals. The links for these materials will be provided on Canvas.

☰ Course Requirements and Assignments

Library Liaison

Anamika Megwalu, email: anamika.megwalu@sjsu.edu, website: <https://libguides.sjsu.edu>

Assignments

Assignments will be referring to questions from the required course book, and will be referring to questions related to other team topics and other objectives e.g. team project. Assignment will appear weekly in the assignments section on Canvas.

- Students will have at least 3 days and up to one week to complete an assignment.
- Late assignment submissions will not be accepted for any reason
- A late submission will be awarded ZERO (0) points.
- No due date/time extensions will be given.
- No make up work for any missed assignments will be granted.

Exercises

These are exercises to help further develop your thinking about software engineering, and these exercises are separate from the book exercises.

- Exercises are typically to be done during class
- In-class responses to exercises are to be turned in before the end of the class lecture session (and students must be present in class to get points).
- No due date/time extensions will be given.
- No make-up date/times for missed exercises will be granted.

Team Project

There will be one team project which will be broken up into weekly tasks i.e 4 to 5 sprints. Sprints are two weeks long and assignments/reports are due by the end of each sprint (typically by the end of the weekend).

- Any late submission of any sprint assignment will be awarded ZERO (0) points.
- No due date/time extensions will be given.
- Any team member who does not commit to their assigned work and who does not pull in their fair share of work when performing team tasks will get point deductions
 - Lack of team member contributions that are noted in more than one sprint will receive a severe reduction of 50% of points from a 100 points of your project contribution assessment category at the end of the semester
- Team members must have a Git account with a profile that describes, in detail, who they are e.g. first/last name (class section info), alias name, team #, etc...
 - The git account/profile used at the start of the team project must also be the same account/profile at the end of the semester.
 - Changing your profile midway will incur a 25% point reduction in your project contribution category.

Quizzes

Canvas quizzes will be given during class but can also be assigned to be completed outside of class (this will be described in the quiz description). Quizzes will be based on any previously discussed (lecture topic) and based on work from (assignments/team work tasks).

- All quizzes will be on Canvas; some quizzes may be issued as a paper quiz.
- All quizzes can only be taken in-class (for the in-class quizzes)
- All quizzes are closed book e.g. no cheat sheet.
- No make up quizzes will be granted
- References to online material or eText book is prohibited
- All quizzes will have lock down browser enabled

Exams (Midterms)

There will be two midterm exams throughout the semester.

Each exam is based on course material that was previously discussed in class and will be related to any or all assignments/in-class work and team work; up to the point of the exam day.

- Exams are accumulative e.g. material learned for exam 1 may appear on exam 2
- Both exams are in-class exams (must be present to get credit)
- All exams will be delivered on Canvas or will be delivered as a paper exam, or can be a hybrid of online and paper exam questions
- All Canvas exams will have lock down browser enabled
- No make-up / redo exams will be granted

Final Exam

There will be an accumulative final exam that will ask question related to any material dealt with throughout the entire course's semester.

- This is an in-class exam.
- The exam will be a closed-all-materials exam.
- The date and time of the final are fixed (please refer to the SJSU final exam schedule).
- The final will exam will be on Canvas where a portion of the exam will be done on paper.
- The final exam will have lock down browser enabled (for the online Canvas portion)
- No make-up / redo of the final exam will be granted

About in-class exams

In-class exams [require] your presence in the classroom. You cannot complete any of these exams outside of the classroom; these exams cannot be taken after the exam date.

REQUIRED: You must notify the professor before the exam date/time if you want an opportunity to be able to provide a valid excuse. Failure to inform the professor about missing the exam (prior to the exam date/time) will result in zero (0) points for the exam. Providing an excuse after the exam date/time will not be accepted and you will get zero (0) points for the exam.

An excuse is one which will require proof e.g. documentation

1. Medical appointments/injury/mental well-being (must be you and not someone else)
2. Family Emergency or Care/Home Emergency/Sick
3. Military active service
4. You are part of the University's sports team/Band/Orchestra/Club and you have to travel away from school
5. Car accident (you were part of it)

****Send out an email immediately once you know that you have trouble getting to the class**

A few examples of many of what will not be accepted as excuses:

- (1) Missing the exam because you scheduled a concert and you attended it, or you did something not school/medical/emergency related and was away from school on the exam day.
- (2) I woke up late....
- (3) I was stuck in traffic....

*You decide on how you want to lose points. It's your decision.....

✓ Grading Information

Grades will be posted to Canvas. Your final course grade will be determined by grading weights (category percentages). The following grading categories are described below:

- 15% Assignments & Exercises (in-class)
- 10% Quizzes (in-class)
- 25% Team Project
- 15% Exam 1 (in-class)
- 15% Exam 2 (in-class)
- 20% Final Exam (in-class)

Note: In this course, there are no extra credit point assignments or extra credit questions

For this course, each student will receive a final letter grade at the end of the semester. The final letter grade is determined by the grading table (below).

Grade Letter	Corresponding Grade Percentage
A	$\geq 93.00\%$
A-	90.00% to 92.99%
B+	87.00% to 89.99%
B	83.00% to 86.99%
B-	80.00% to 82.99%
C+	77.00% to 79.99%
C	73.00% to 76.99%
C-	70.00% to 72.99%

D+	67.00% to 69.99%
D	63.00% to 66.99%
D-	60.00% to 62.99%
F	< 60.00%

Note : The calculated final grade percentage is [never] rounded off (grades are earned exactly as computed and described) - Grades are earned and not given!!!

All students have the right, within a reasonable time, to know their academic scores, to review their grade-dependent work, and to be provided with explanations for the determination of their course grades. See [University Policy S20-2](#) for more details.

University Policies

Per [University Policy S16-9 \(PDF\)](#) (<http://www.sjsu.edu/senate/docs/S16-9.pdf>), 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](#) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>) web page. Make sure to visit this page to review and be aware of these university policies and resources.

Course Schedule

Exam Schedule

Exam	During	Date
Exam #1	Week 7	Wednesday - September 30, 2026 @ SCI 311
Exam #2	Week 12	Wednesday - November 4, 2026 @ SCI 311
Final Exam	Week 17	Friday, December 11, 2026 (8:30am-10:30am) @ SCI 311

Course Schedule (Subject to change with fair notice, which will be posted in Canvas)

Week #	Month Overview	Start Date	Topic
Week 1	August	Aug 19	First day of instruction; e.g. introduction
Week 2		Aug 24	Introduction to Software Engineering / Software products (Ch 1)
Week 3		Aug 31	Waterfall / Project Failures / Agile Software Engineering (Ch 2)
Week 4	September	Sept 7	Sept 7 (Labor Day Holiday) Agile Software Engineering continued(Ch 2)
Week 5		Sept 14	Features, User Stories, Personas (Ch 3)
Week 6		Sept 21	Software Architectures (Ch 4)
Week 7		Sept 28	Microservices (Ch 6)/ EXAM #1 (Sept 30)
Week 8	October	Oct 5	Continue Microservices (Ch 6) / Testing (Ch 9)
Week 9		Oct 12	Testing Continued / Code management & DevOps (Ch 10)
Week 10		Oct 19	Code management & DevOps continued
Week 11		Oct 26	Security and Privacy (Ch 7)
Week 12	November	Nov 2	Reliable Programming (Ch 8) / EXAM #2 (Nov 4)
Week 13		Nov 9	Nov 11 (Veteran's Day Holiday) Reliable Programming continued / Cloud Based Software (Ch 5)/
Week 14		Nov 16	Cloud Based Software continued / Project Demos
Week 15		Nov 23	Nov 25-27 (NI Day & Thanksgiving Holiday) Project Demos
Week 16		Nov 30	Last full week of class Project Demos / Topics review

Week #	Month Overview	Start Date	Topic
Week 17	December	Dec 7	Topics Review December 7 - Last Day of Instruction Final Exam (Friday, Dec 11 @ 8:30am to 10:30am in SCI 311)

***The schedule/topics may be subject to minor changes but with fair notice given in advance.*

Team Project Schedule

Sprint #	During	Topics
N-2	Week 2	Team Formation / Prototype Planning & Survey
N-1	Week 3	Report Preparation & Discussion / Arch. Design
N = 1	Week 4-5	Architecture/Design document write up/Implementation/Testing
2	Week 6-7	Implementation/Testing
3	Week 8-9	Implementation/Testing
4	Week 10-11	Implementation/Testing
5	Week 12-13	Implementation/Demo Preparation
	Week 14-15	Project Demos
	Week 16-17	Project Demos