

Software Project Section 01

CS 161

Spring 2025 In Person 3 Unit(s) 01/23/2025 to 05/12/2025 Modified 01/24/2025

Contact Information

Class Days/Time: Tuesday/Thursday 7:30 PM – 8:45 PM

Classroom: MacQuarrie Hall 225

Instructor: Dominic Abucejo

Email: dominic.abucejo@sjsu.edu

Office Location: Online (Available via Zoom)

Office Hours: Online (via Zoom from 7am to 9am on Wednesdays)

Course Description and Requisites

A substantial project based on material from an advanced area of computer science. Includes lectures on the project topic and the design and testing of software systems. At least 50% of the course grade to be based on the project.

Prerequisites: CS 160 (with a grade of "C-" or better) or instructor consent. Computer Science and Software Engineering Majors only.

Letter Graded

Classroom Protocols

- Students are not allowed to record without instructor permission
- Students are prohibited from recording class activities (including class lectures, office hours, advising sessions, etc.), distributing class recordings, or posting class recordings.
- Materials created by the instructor for the course (syllabi, lectures and lecture notes, presentations, etc.) are copyrighted by the instructor. This university policy (S12-7) is in place to protect the privacy of students in the course, as well as to maintain academic integrity through reducing the instances of cheating.

- Students who record, distribute, or post these materials will be referred to the Student Conduct and Ethical Development office. Unauthorized recording may violate university and state law.
- It is the responsibility of students that require special accommodations or assistive technology due to a disability to notify the instructor.

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)

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At the end of this course, students will have achieved the following course learning outcomes:

- Teamwork with revolving roles and responsibilities such as project management
- Understanding SCRUM methodologies and meeting schedules/deadlines
- Improved presentation experiences i.e. with elevator pitch project descriptions
- Learn HTML/CSS with Python and database development
- Learning UML methodologies
- Learning different testing strategies
- Learn basic GIT commands and usage
- Learn how to create a web based project that provides a service

Course Materials

Required Book

Mythical Man-Month, The: Essays on Software Engineering, Anniversary Edition Anniversary Edition

Product details

- ASIN : 0201835959
- Publisher : Addison-Wesley Professional; Anniversary edition (August 2, 1995)
- Language : English
- Paperback : 336 pages
- ISBN-10 : 9780201835953

- ISBN-13 : 978-0201835953

✓ Grading Information

Category	Composition
Participation	15%
Homework	10%
Exam	15%
Project	60%

Course Requirements and Assignments

Course requirements, reading materials, hands-on coding activities, and assignments contribute to and are aligned with course learning outcomes.

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.

The final grade is calculated based on the percentage of the total points for all the Course Requirement and Assignments listed below:

- Homework Assignments: individual, regularly assigned, will include written problem assignments, and perhaps some online exercises. Solutions will be not posted. Assignments are submitted via Canvas for grading. Students must submit only their own work by the posted due date. (No late assignment submissions)
- Reading assignments: Reading assignments will regularly be for the next class.
- Quizzes: At least 1 quizzes per week will be issued via Canvas. Quizzes will be 5 to 10 minutes in total duration with one to three questions.
- Midterm: There will be one written Midterm exam during the semester. Makeup exams will only be given in cases of illness (with signed documentation from a medical facility – original copy). Exams are closed book, closed notes and closed communications. The midterm exam will be 15% of the final grade. Midterms usually will consist of every topic taught since the first day of class to the week of the midterm.
- Final Exam: There will be no final exam. However there will be a final project presentation that take place during the final exam assigned date.

- Project: There will be a programming project. Information on the project, including topics and deadlines, will be given later in the course.

Projects

The project will be based on a theme and will be team assigned. All teams will work on the same project theme. The project will include team presentations (going over what the project is, use case scenarios, demonstrations, team meetings, teamwork, participation, and other key contributing factors).

Participation

There will be several quizzes where each student will complete individually on Canvas. There will also be in-class assignments that will be occurring during the semester. Quizzes are typically announced the day before the quiz. In-class activities will usually be planned earlier.

Midterm/Final Presentation

The midterm exam will be 15% of the final grade. Midterms usually will consist of every topic taught since the first day of class to the week of the midterm. There will be no final exam. However there will be a final project presentation that take place during the final exam assigned date.

NOTE: Grade Percentages are typically computed and shown in Canvas. The table below shows the letter grade and percentage mapping. There will be no rounding of percentages for the final grade calculation. Do not request for things such as bumping your grade from B+ to A-.

Each student's earned grade at the end of the semester will be based on the combined performance of each of the main grading categories. The final assigned letter grade will be based on the table below.

Grade	Percentage
A+	97.50 to 100%
A	92.50 to 97.49%
A -	90.00 to 92.49%
B +	87.50 to 89.99 %
B	82.50 to 87.49%
B -	80.00 to 82.49%

C +	77.50 to 79.99%
C	72.50 to 77.49%
C -	70.00 to 72.49%
D +	67.50 to 69.99%
D	62.50 to 67.49%
D -	60.00 to 62.49%
F	Below 60.00%

Grading Table (for end of semester total)

Note that “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 F13-1 at <http://www.sjsu.edu/senate/docs/F13-1.pdf> for more details.

University Policies

Per [University Policy S16-9 \(PDF\)](http://www.sjsu.edu/senate/docs/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) (<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

CS 161 Software Projects, Spring 2025, Course Schedule

*Subject to change with fair notice at least one class period in advance. Students will be notified in class and/or via course web site should any changes occur.

Week	Date	Topics / Readings	Assignments, Deadlines	Notes

1	1/23	First day of class – Introduction and house keeping	HW #1 Assigned (URL web page to fill out)	First day of class
2	1/28 - 1/30	Topic Discussion, Basics of Git, SCRUM Methodologies	HW #1 due HW #2 Assigned (Git commands)	
3	2/4 - 2/6	Basics of Git. Team Formation at the beginning of the week Discuss Team Presentations (describing software project – high level). JavaScript/Python Basics.	HW #2 due HW #3 assigned (project: topic)	
4	2/11 - 2/13	HTML/CSS Basics, Database Basics	HW #3 due HW #4 (Connecting DB, read/write DB)	Team Progress Documentation Report due
5	2/18 - 2/20	Node.js Basics	HW #4 due HW #5 assigned	Team Progress Documentation Report due
6	2/25 - 2/27	Customer: Phase 1 Deliverables - team reporting. Bug Reporting.	HW #5 due HW #6 assigned (Team project: documentation)	Team Progress Documentation Report due
7	3/04 - 3/06	Testing strategies, Validation/Quality Assurance	HW #6 due In-Class Activity #1	Team Progress Documentation Report due

8	3/11 - 3/13	Concepts review for upcoming exam,	In-Class Activity #2	Team Progress Documentation Report due
9	3/18 - 3/20	3/18: Special Topic Discussion 3/20: Midterm Exam	In-Class Activity #3	Team Progress Documentation Report due
10	3/25 - 3/27	Project presentation progress		Team Project Status (3 to 4 minute video presentation)
11	4/01 - 4/03	3/31 - 4/4: Spring Break (no class)		
12	4/08 - 4/10	4/08: Special Topic Discussion. Topics on Deployment/Docker	HW #7 assigned In-class Activity #4	Team Progress Documentation Report due
13	4/15 - 4/17	Software Maintenance topics.	HW #7 due	Team Progress Documentation Report due
14	4/22 - 4/24	Special Topics: i.e. Bug Fixes,	In-class Activity #5	Project Progress documentation due
15	4/29 - 5/01	Managing Field Issues, Customer Service Support		Project Progress documentation due
16	5/06 - 5/08	Project discussion/Feedback	In-class Activity #6	Project Progress documentation due

Final Exam	5/20	5/20 (Tuesday) Final Presentations (must be present to get full credit)	Tuesday, May 20	7:45PM-9:45 PM