San José State University

**College of Science/Computer Science Dept.** 

**CS161 - Section 01 : Software Project** 

**Spring 2022** 

### **Course and Contact Information**

Instructor	Dominic Abucejo		
Office Location	Online Zoom meeting location (please see Zoom office hours information below)		
Telephone	N/A		
Email	dominic.abucejo@sjsu.edu		
Office Hours	Thursdays from 6:00pm to 7:00pm PST  • email for an appointment Office Zoom details:  • <a href="https://sjsu.zoom.us/j/89234181745?pwd=T3ZYeE43aGFpeVdJTlN2UmJnbVZvUT09">https://sjsu.zoom.us/j/89234181745?pwd=T3ZYeE43aGFpeVdJTlN2UmJnbVZvUT09</a> • Password: Please contact professor for information		
Class Days/Time	Tuesday/Thursday 7:30 pm – 8:45pm PST (Pacific Standard Time)		
Classroom	From the first day of class until February 14, 2022 - Online Synchronous meetings on Zoom/Canvas,  Zoom details for course lecture:  • <a href="https://sjsu.zoom.us/j/89667705851?pwd=RUxySVVzUjFWL0lyRWtjdDBacTVPZz09">https://sjsu.zoom.us/j/89667705851?pwd=RUxySVVzUjFWL0lyRWtjdDBacTVPZz09</a> (Links to an external site.)  • <a href="Password">Password</a> : Please inquire from professor  After February 14, 2022 – In-person class sessions, Building: MacQuarrie Hall, Room 222		
Prerequisites	CS 160 (with a grade of C- or better). Computer Science and Software Engineering Majors only. *Students must meet this pre-requisite; this is the department policy. Please seek guidance from your student advisor if you do not have this requirement completed.		

# **Course Description**

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.

## **Course Format**

#### Technology Intensive, Hybrid, and Online Courses

This course is an in-person course. However, due to COVID restrictions/policies, the first few weeks of the course will be conducted online through ZOOM meetings.

Wired or Wireless Laptop/Workstation (is needed for all class sessions). Students are responsible for ensuring that they have access to reliable Wi-Fi during class and tests. If students are unable to have reliable Wi-Fi, they must inform the instructor, as soon as possible or at the latest one week before the test date to determine an alternative. Students must provide their own power adapters for their own laptop.

In the event the professor's wifi connection drops, please wait for a few minutes in the Zoom meeting session for the professor to get logged back in.

## **Course Learning Outcomes (CLO)**

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

## **Required Texts/Readings**

### Loose Leaf for Software Engineering: A Practitioner's Approach

9th Edition

by Roger Pressman (Author), Bruce Maxim (Author)

• **Publisher**: McGraw Hill; 9th edition (September 9, 2019)

Language: English
Paperback: 704 pages
ISBN-10: 126042331X
ISBN-13: 978-1260423310

# Other technology requirements / equipment / material

Software requirements i.e. instructions for the installation of applications/services/tools will be described during class instruction.

# **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.
- Project: There will be a programming project. Information on the project, including topics and deadlines, will be given later in the course.
- Final exam: The final has a fixed date. 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 final exam is cumulative.

#### **Final Examination or Evaluation**

The final examination will be held on: May 24 (Tuesday) from 7:45pm PST to 10:00pm PST

The exam will be comprehensive with more emphasis on topics discussed after the last midterm.

## **Grading Information**

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

Project	60%
Assignments	10%
Quizzes	10%
Midterm	10%
Final Exam	10%

#### **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).

#### Quizzes

There will be at least one quiz week which each student will complete individually on Canvas

#### Midterm/Final Exam

Each exam will be 10% 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 will typically be comprehensive. Grade Percentages are typically computed and shown in Canvas. The table below shows the letter grade and percentage mapping.

NOTE: 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-.

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 %
В	82.50 to 87.49%
В -	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%

## **Classroom Protocol**

- This course or portions of this course (i.e., lectures, discussions, student presentations) will be recorded for instructional or educational purposes. The recordings will only be shared with students enrolled in the class through Canvas. The recordings will be deleted at the end of the semester.
- If, however, you would prefer to remain anonymous during these recordings, then please speak with the instructor about possible accommodations (e.g., temporarily turning off identifying information from the Zoom session, including student name and picture, prior to recording).
- 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.

- Any student that needs specific accommodations or assistive technology due to a disability should work with the Accessible Education Center (AEC), and with the instructor.
- Please note that for the Zoom online course summary meeting scheduled, it is based on the Pacific Standard Time zone (PST).
- Due to the COVID/Omicron cases, face masks must be worn at all times during in-person classes and each individual must have a six feet distance of separation from others.

#### **CoS COVID-19 Safety**

• All students registered for a College of Science (CoS) class with an in-person component must view the <u>CoS COVID-19 Training</u> slides and the <u>SJSU Phased Adapt Plan</u> website and acknowledge reading them according to their instructor's directions. By working together to follow these county and SJSU safety practices, we can keep our college safer. Students who do not follow COVID-19 Safety practice(s) outlined in the training, the SJSU Phased Adapt Plan, or instructions from their instructors, TAs or CoS Safety Staff may be dismissed from CoS buildings, facilities or field sites. Please review this training as needed throughout the semester, as updates will be implemented as changes occur (and posted to the same links).

#### **University Policies**

Per <u>University Policy S16-9</u>, 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 <u>Syllabus Information</u> <u>web page</u> (https://www.sjsu.edu/curriculum/courses/syllabus-info.php). Make sure to visit this page to review and be aware of these university policies and resources.

# CS161-01 / Software Project, Spring 2022

## **Course Schedule**

Week/Lesson /Module	Date	Topics, Readings, Assignments, Deadlines
1	1/27/2022	First day of class – Introduction and house keeping
2	2/1, 2/3	Topic Discussion, Team Forming & Team Assignments, SCRUM Methodologies
3	2/8, 2/10	Basics of Git, Team Presentations (describing software project – high level) to class
4	2/15, 2/17	Python Basics, HTML/CSS Basics, Database Basics
5	2/22, 2/24	Django Basics
6	3/1, 3/3	Customer: Phase 1 Deliverables - team reporting
7	3/8, 3/10	Testing strategies, Validation/Quality, Bug Reporting
8	3/15, 3/17	Concepts review, Customer: Team Status Updates
9	3/22, 3/24	Midterm Exam
10	3/29, 3/31	SPRING RECESS
11	4/5, 4/7	Phase 2 progress presentations to class
12	4/12, 4/14	Topics on Deployment/Docker
13	4/19, 4/21	Team status updates to class
14	4/26, 4/28	Customer: Phase 3 progress update
15	5/3, 5/5	Maintenance topics, Bug Fixes, Field Issues, Customer Support
16	5/10, 5/12	Project demo to class, Post-project discussion/Feedback
17	5/17, 5/19	No class – EXAM Week. 5/16 (Monday) is the last day of instruction
Final Exam	May 24, 2022	From 7:45pm PST To 10:00pm PST Macquerrie Hall, Room 222