

CSc190 Senior Project (Part I)

California State University, Sacramento (CSUS), Fall 2021, 2 Credits

Class Times & Locations:

Section 1: M, 5:30 PM - 6:20 PM, Online

Section 4: M, 6:30 PM - 7:20 PM, Online

Your Instructor

Chris Grove

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Office Hours: TBD, via Zoom: <https://csus.zoom.us/my/cgrove> 

[\(https://csus.zoom.us/my/cgrove\)](https://csus.zoom.us/my/cgrove)

Email Policy

Please email me (grove@csus.edu) directly instead of using Canvas messaging system. Please check your SacState email at least once a day, in case the instructor or TA reaches out to you through email. Expect email response will be slow during weekends and holidays.

Catalog Description

The first of a two-course sequence in which student teams undertake a project to develop and deliver a software product. Approved project sponsors must be from industry, government, a non-profit organization, or other area. Teams apply software engineering principles in the preparation of a software proposal, a project management plan and a software requirements specification. All technical work is published using guidelines modeled after IEEE documentation standards. Oral and written reports are required. Lecture one hour, laboratory one hours.

Prerequisites

1. Senior status (90 units completed)
2. WPJ score of 70+, or at least a C- in ENGL 109M/W
3. Courses completed: CSc 130, CSc 131, and four additional 3-unit CSc upper division courses that fulfill the major requirements (excluding CSC 192-195, CSC 198, CSC 199)

Course Expectations

1. Teams will be formed at the beginning of the semester and will remain intact for the duration of both CSc190 and CSc 191.
2. The number of members on each team will be set by the instructor.
3. Teams are expected to self-organize which will require cooperation and collaboration of all team members throughout the duration of the project (CSc 190 and CSc 191).
4. Each team is expected to understand and apply “Agile Principles” and to do the work in accordance with the SCRUM methodology adapted for Senior Project use.
5. Each team is responsible for securing a project Client; with the Client and proposed project being approved by the instructor.
6. Once a project is secured, each team is expected to collaborate with their project Client throughout the duration of the project.
7. In collaboration with the project Client, the team will produce a Project Charter Document that documents why the project is needed, the criteria needed to measure success throughout the project and what will be needed to ensure the project provides the client with the value expected.
8. In collaboration with the project Client, the team will produce a project Product Backlog Document (a high-level list of everything that needs to be built or done to make the product owner’s vision a reality). The team’s Product Backlog Document will formally describe each of the required product features, a description of the users of each feature, and the needs/objectives of each user’s expected interaction with the feature (these interactions must be specified in the form of user stories).
9. The Product Backlog Document will also contain the list of Project Features, the list of user stories associated with each Feature, and the team’s estimates of the scope of work associated with each of the user stories.
10. In collaboration with the project Client, the team will produce several throw-away prototypes, which will later be refined into an evolutionary prototype. It is highly recommended that the team start their actual implementation work based on the evolutionary prototype.
11. The team is responsible for providing professional, quality documentation, both in the content

and the design of all required documentation.

12. The planning and actual work required during CSc 190 will be scheduled into a series of two-week “sprints”. The work to be completed will be specified at the start of CSc 190 and the team will collaborate with their client in identifying the work to be done. At completion of each sprint, the team is expected to meet with their Client 1) to review and provide the team with feedback on the increment of work completed at the end of the sprint, and to 2) create the plan for the work to be completed in the next sprint.
13. At the end of each sprint, the team will meet with the lab adviser, and review what was accomplished, what went well, what could have gone better, and what improvement(s) could be made improve in the next sprint.

Deliverables

End-of-Sprint Deliverables	End-of-Semester Deliverables:
Evidence of Work	Project Charter Document
Properly Maintained Sprint Backlog	Oral Presentation Slides
Bi-weekly Sprint Execution Report	Product Backlog Document
Bi-weekly Lab Advisor Meeting Agenda/ Minutes	Product Prototype
Bi-weekly Client Meeting Agenda/Minutes	Project Website

Attendance and Participation

Attendance will be recorded, but will not count towards the final grade. The level of participation of students will be evaluated using in-class quizzes/activities/discussion. Senior project is a project-driven class, and regular meet-up including lecture and other project-related meeting such as group/lab/client meetings will help the team be on track with their project. Students who are unable to attend lectures or other project-related meetings due to Sac State sponsored activities (such as sports, band, academic competition, field trips, etc.) or personal religious observances may request reasonable accommodations. Please notify the instructor and the team in one week prior to the actual meet-up time regarding potential absences so that we can determine alternative methods for you to complete the required work. For absence due to emergency, students will be required to contact the instructor and submit proof documentation within 4 days after the actual lecture time.

Important Notes: Appropriate in-class behaviors are expected, including but not limited to:

1. Be on time for lectures and lab meetings.
2. Mute your microphone during our Zoom lecture.
3. Stay focused and Take notes.
4. Use appropriate language when asking questions or during group discussion.
5. Be considerate for others.

Methods of Evaluation

Here is a break-down on how your final grade will be calculated.

Graded by	Grading Category	Type	Weigth
Team	Peer Evaluation	Individual	5%
Instructor	Individual Assignments	Individual	5%
Instructor	Oral Presentation Performance	Individual	10%
Instructor	End-of-semester deliverables	Team-Based	40%
Lab Adviser	Sprint Performance (Attendance + Sprint Performance + End-of-Sprint Deliverables)	Team-based	40%

Grading Scheme

Name	Range
A	100 %
A-	< 94.0 %
B+	< 90.0 %
B	< 87.0 %
B-	< 84.0 %
C+	< 80.0 %
C	< 77.0 %
C-	< 74.0 %
D+	< 70.0 %

D	< 67.0 %
D-	< 64.0 %
F	< 61.0 %

Missed and Late Submission Policy

In-class work missed because of absence will only be accepted if arrangements are made beforehand. For end-of -sprint deliverables, late submission will be accepted within 2 days after due dates, with 25% penalty for eachday. No late submission will be accepted for end-of-semester deliverables. Alternate due dates can be arranged in special circumstances provided these arrangements are made before the due date.

Tenative Schedule

The following schedule is a plan, not a contract. Modifications will be posted on Canvas as the semester progresses.

Week #	Activities	Sprints	Milestones
1 - Aug 30	Introduction	NA	
2 - Sept 6	<i>Labor Day - No Class</i>		
3 - Sept 13	Project Proposal	NA	
4 - Sept 20	Scoping the business problem	Sprint 00	
5 - Sept 27	Requirements Elicitation	Sprint 00	<ol style="list-style-type: none"> 1. Client Secured 2. Project proposal produced 3. Project charter document produced
6 - Oct 4	Context Diagram and Business Event Table	Sprint 01	
7 - Oct 11	Introduction to Flyingdonut& workflow I	Sprint 01	<ol style="list-style-type: none"> 1. Business Event Table produced 2. Context Diagram produced

8 - Oct 18	Prototyping	Sprint 02	
9 - Oct 25	Essence and the Brown Cow Model	Sprint 02	Several Low-Fidelity Prototypes proposed
10 - Nov 1	User Stories and Acceptance Criteria	Sprint 03	
11 - Nov 8	Introduction to Flyingdonut & workflow II	Sprint 03	A High-Fidelity Prototype implemented as a clickable UI
12 - Nov 15	General Discussion I	Sprint 04	
13 - Nov 22	Oral Presentation Session I	Sprint 04	1. Product Backlog finalized 2. Production Environment ready
14 - Nov 29	Oral Presentation Session II	Sprint 05	
15 - Dec 6	Oral Presentation Session III	Sprint 05	Product UI implemented
16 - Dec 13	<i>Finals Week - No Class</i>		All documentation finalized

University Policies

COVID-19

Please visit the following page for more about CSUS' polices regarding COVID-19:

<https://www.csus.edu/student-affairs/emergency-student-information/> 

[\(https://www.csus.edu/student-affairs/emergency-student-information/\)](https://www.csus.edu/student-affairs/emergency-student-information/)

Academic Honesty

If you violate the University's Honor Code (<https://www.csus.edu/umannual/student/stu-0100.htm> [↗] [_ \(https://www.csus.edu/umannual/student/stu-0100.htm\)](https://www.csus.edu/umannual/student/stu-0100.htm)), you will receive a reduced or failing grade in the course, other penalties may be imposed, and the violation will be reported to the Student Conduct Officer. Automated tools may be used on any assignment, at any time, to detect inappropriate collaboration and to determine the originality of submissions.

Disability Services

If you have a documented disability and need accommodations in this course, please register with the Office of Services to Students with Disabilities (<https://www.csus.edu/student-affairs/centers-programs/services-students-disabilities> [↗] [_ \(https://www.csus.edu/student-affairs/centers-programs/services-students-disabilities\)](https://www.csus.edu/student-affairs/centers-programs/services-students-disabilities) /). They will verify your need for services and make recommendations for the course. I will be happy to discuss any accommodations I can provide to assist your learning with you.

Religious Observation Accommodations

If you cannot satisfy a requirement of the course for religious reasons you must let me know at least two weeks in advance. In some cases you will be required to make up the requirement; in other cases the requirement may be waived with suitable adjustment in grading criteria.

Excused Absences

Students who are unable to attend class due to Sac State sponsored activities (such as sports, band, academic competition, field trips, etc.) or personal religious observances may request reasonable accommodations. Please notify me during the first week of class regarding potential absences so that we can determine alternative methods for you to complete the required work.

Housing & Food Security

If you experience difficulties with financial, housing or food security, please contact Basic Needs Division of Student Affairs (<https://www.csus.edu/student-affairs/crisis-assistance-resource-education-support/> [↗] [\(https://www.csus.edu/student-affairs/crisis-assistance-resource-education-support/\)](https://www.csus.edu/student-affairs/crisis-assistance-resource-education-support/)) for assistance.

Parents & Families

If you are students with children, please feel free to let me know your needs. Also, please reach out to Parents & Families Division of Student Affairs (<https://www.csus.edu/student-affairs/centers-programs/parents-families/> [↗] [\(https://www.csus.edu/student-affairs/centers-programs/parents-families/\)](https://www.csus.edu/student-affairs/centers-programs/parents-families/)) for all resources available on campus.

