

CpE 191 and EEE 193B Senior Design for Spring 2021 will be entirely online in compliance with the University, State of California and local health services guidelines. We will NOT meet in-person during the semester. All course materials, team sites, and grading will be on the University Canvas course site.

The lecture period will be a Canvas based Zoom session during the scheduled lecture time. The Zoom sessions will start at noon with question/answers on the pre-recorded lectures, announcements and general discussion on senior design. All students are required to be on Zoom at noon.

The laboratory period will be as scheduled with your lab instructor.

Tatro will host the even number teams using the Senior Design MS Teams site. My team-instructor meetings will start at the end of the lecture discussion which might be before 1 pm. Levine will host the odd numbered teams. Levine's team-instructor meetings will not start until roughly 12:45 pm.

The lab instructor may ask that the team Zoom meet at times and days other than the scheduled lab period. The Spring 2021 enrollment is large and we want to give each team any and all assistance needed. The team may also request a meeting outside the scheduled lab period to seek timely assistance. In either case, the team will be expected to determine a day/time where all team members can attend the prearranged Zoom or MS Teams session.

The University expects that each senior design team will work in a manner that respects the various state and local health guidelines. Remotely interface with your teammates as much as possible. Only have fact-to-face meetings when absolutely required and then strictly obey the health guidelines!

Spring 2021 Grading:

0 - Attendance, Activity Reports, Team Work, Team Member Evaluations, and Team Bulletin Board	25%
1 - Problem Statement Revision, Design Idea Review, Timeline update	5%
2 - Device Test Plan	5%
3 - Market Review Report and Presentation	10%
4 - Feature presentation and report	10%
5 - Mid-Term Progress Review and Testing Results Presentation	5%
6 - Engineering ethics quiz	5%
7 - Deployable Prototype Evaluation	10%
8 - End of Project Documentation	20%
9 – Public Deployable Prototype Presentation – Friday 5/08/2021	5%
Total	100%

Attendance: Attendance is required for all lab and lecture periods. Project teams will meet at scheduled appointments during the lab period to review weekly project status and submit weekly status reports. Prior permission in writing is required for an excused absence.

Failure to Progress: In the instructor’s opinion and sole discretion, if the design team has failed to show reasonable progress, the team and/or individual team members will be dropped from the course and required to repeat the course at the next scheduled offering. It is vital that design teams show steady work and project progression at all times. You are cautioned to allow time in your schedule for a minimum of 15 hours per week of work on this course alone. Spending time unproductively is not efficient nor an extenuating circumstance for continuation in the course.

Grading Policy: Carefully review the course material. You will be held to the requirements as detailed in the many course documents.

Grades will be based on the combination of your working project demonstration, project documentation, meeting scheduled milestones, project management plans, peer reviews, plus a qualitative evaluation of your end of project presentation. The class average is usually in the B+ range. Grades may be curved at the instructor’s discretion with typical (meaning somewhere around this region) grades ranges are:

“A” 94.5 and above “A-” 89.5 to 94.49

“B+” 87.5 to 89.49 “B” 83.5 to 87.49 “B-” 79.5 to 83.49

“C+” 77.5 to 79.49 “C” 73.5 to 77.49 “C-” 69.5 to 73.49

“D+” 67.5 to 69.49 “D” 63.5 to 67.49 “D-” 59.5 to 63.49

F Below 59.5

RVR 3001 Design Laboratory room rules:

THIS IS NOT AN OPEN LAB!

Each senior design team will be assigned a work table for your use during the length of your project. Keep your table presentable and “working clean” at all times. No food or beverage is allowed near the computers or work tables. Please do not move test equipment from other tables without permission and prior coordination.

Entry into the laboratory is by a University “FOB” obtained completing the “key exchange” paperwork and your instructor’s signature. Students not engaged in senior design must be escorted at all times if you allow them in the lab – when you leave – they leave.

Progress Demonstration

At four times in the second semester of Senior Design, you will demonstrate your project as it stands at that time to your instructor.

Progress Demonstrations (as so named in the schedule) are the most informal with the goal to show what has been accomplished in your build since the last demonstration with a practical demonstration of hardware and software. Clear progress should be evident.

Assign 5: The Mid-Term technical review is more formal and will be a full demonstration of all features to the measurable metrics of your project. Any metric in your design idea contract not fully met yet by the Mid-Term technical review requires a full explanation including task assignments, estimate of time required and anticipated date of fully meeting the full feature set at the “agreed to” measurable metrics.

Assign 7: The Deployable Prototype Technical Review is your end of project review. Your project will be complete and fully meet the feature set to the design idea contract measurable metrics. The deployable prototype demonstration will show complete build status by the use of your physical project with all supporting software. Any deficiency of the build must be corrected by the public presentation and will incur a grade penalty.

CpE 191/EEE 193B - Lecture – Spring 2021

Week	Date	Topic to be discussed (dates are subject to change)	Lecture notes
1	01-25	Spring Semester Review	
2	02-01	Device Test Plan Report Device testing and validation	<i>SD-Week-2-Testing</i>
3	02-08	Market Review	<i>SD-Week-3-Market-Review-1</i>
4	02-15	Market Review	<i>SD-Week-4- Market-Review -2</i>
5	02-22	Lifelong learning	<i>SD-Week-5-Lifelong-Learning</i>
6	03-01	Intellectual property	<i>SD-Week-6-Intellectual-Property -1</i>
7	03-08	Intellectual property	<i>SD-Week-7- Intellectual-Property -2</i>
8	03-15	Engineering Ethics	<i>SD-Week-8-Ethics-1</i>
9	03-22	Spring Recess	
10	03-29	Engineering Ethics	<i>SD-Week-9- Ethics-2</i>
11	04-05	Engineering Ethics	<i>SD-Week-10- Ethics-3</i>
12	04-12	Post-Project Audit End of Project Documentation	<i>SD-Week-12-Post-Project_Audit</i>
13	04-19	Assignment 6 - Ethics Quiz	Online quiz during lecture time
14	04-26	Quality Control	SD-Week-14-Quality-Control
15	05-03	No lecture	Prototype Presentation preparation
16	05-10	No lecture	Public presentation preparations
17		Finals Week – No lecture and no lab	

CpE 191/EEE 193B – Lab Spring 2021

Week	Date	Topic to be discussed	Lab Assignments due on this date
1	01-25	Team-Instructor Meetings	Team Activity Report Third team leader starts on 12/12/2020
2	02-01	Team Presentations	Assign 1: Revised Problem Statement Team Activity Report
3	02-08	Team-Instructor Meetings	Assign 2: Device Test Plan Report Team Activity Report
4	02-15	Team Presentations Team-Instructor Meetings	Team Activity Report <i>Progress Demonstration</i>
5	02-22	Team-Instructor Meetings	Team Activity Report
6	03-01	Team Presentations	Assign 3: Market Review Team Activity Report
7	03-08	Feature presentations	Assign 4: Feature Report Team Activity Report
8	03-15	Feature presentations	Outgoing Team Leader Written Report Fourth Team Leader Starts on 3/10/2021 Team Activity Report Team Member Evaluations
9	03-22	Spring Recess	
10	03-29	Team-Instructor Meetings	Team Activity Report
11	04-05	Team Presentation (Video)	Assign 5: Mid-term Progress Review Test Results Report Team Activity Report
12	04-12	Team-Instructor Meetings	Team Activity Report
13	04-19	Team-Instructor Meetings	Team member evaluations due Fourth Outgoing Team Leader Report Last Team Activity Report
14	04-26	Team Presentations (Video)	Assign 7: Deployable Prototype Technical Review Last date for hardware credit
15	05-03	Documentation review	Assign 8: Final Documentation Report Viewing of your two-minute video
16	05-10 05-14	No lab - Presentation Preparations Senior Design Showcase 9:30 AM to 12:00 pm Location to be determined	
17		Exam week – no lab meeting	

All written reports are due at the start of the Monday laboratory.

Attendance, Weekly Reports, Team Work, Team Member Evaluations

This category receives 25% of your total grade.

Week	Date	Item	Percentage of 25 course points
1	01-25	Team Activity Report	4%
2	02-01	Team Activity Report Outgoing Team Leader Report	4%
3	02-08	Team Activity Report	4%
4	02-15	Team Activity Report	4%
5	02-22	Team Activity Report	4%
6	03-01	Team Activity Report	4%
7	03-08	Team Activity Report	4%
8	03-15	Outgoing Team Leader Report Team Activity Report Team Member Evaluations	30%
9	03-22	Spring Break – no report	
10	03-29	Team Activity Report	4%
11	04-05	Team Activity Report	4%
12	04-12	Team Activity Report	4%
13	04-19	Outgoing Team Leader Report Team Member Evaluations Evaluation of Team Work Team Activity Report Team Bulletin Board	30%
14	04-26		
15	05-03		
16	05-10		
		Total	100% = 25 course points