

SAN JOSÉ STATE UNIVERSITY
Department of Mechanical Engineering

Spring 2020 ME 195B Senior Design Project II

Prerequisites	ME 195A with Grade Cor better
Credit Units	3 units
Class Hours	Wednesdays, 3:30 – 16:15
Instructors/Meeting Room	Section 1 (24743): Prof. Raghu Agarwal, Room E135 Section 2 (24744): Prof. Raymond Yee, Room E113 / E125A(lab) Section 3 (24745): Prof. Winnicy Du, Room 192 Section 4 (29032): Prof. Furman, 115 Terraine St. (https://goo.gl/maps/VayYRWqwrtoQdXbM6) Section 5 (24747) Prof. Viswanathan, Room E114 & E215 (presentation) Section 6 (24748) Prof. Mokri, Room E141 Section 7 (27127) Prof. Zaidi, Room E133
Course Coordinator	Professor Raymond Yee; 408-924-3935; Raymond.yee@sjsu.edu
Contact Information:	Dr. Agarwal: office Engr 310D, raghu.agarwal@sjsu.edu (408) 9243845 Dr. Yee: office Engr 310B, raymond.yee@sjsu.edu (408) 9243935 Dr. Du: office Engr 310F, winnicy.du@sjsu.edu (408) 9243866 Dr. Furman: office Engr 310G, burford.furman@sjsu.edu (408) 9243817 Dr. Viswanathan: office Engr 310E, vimal.viswanathan@sjsu.edu (408) 9243941 Prof. Mokri: james.mokri@sjsu.edu Dr. Zaidi: sohailhzaidi@gmail.com
Office Hours	Prof. Raghu Agarwal: T, R 16:30– 17:30 in E310D Prof. Raymond Yee: M 13:00 – 14:30; Wed 6:00 – 17:00 in E310B Prof. Winnicy Du: MW 17:45 – 18:30 (in E192), M 15:30 (in E310F) Prof. Buff Furman: MTR 13:30– 14:30 in E310G Prof. Vimal Viswanathan: T, W, TR 09:00 am– 10:00 am in E310E Prof. James Mokri: MW 12:00 – 13:00 in room E141 Prof. Syed Zaidi: MW 18:00 – 19:00 in room E133

This course satisfies SJSU Studies areas ~~as a~~ and ~~V~~ when taken in conjunction with Engr 195a/b and ME 195a/b. You must receive a “C” or better in all four courses to get GE credit.

Course Description

Second half of a one-year team project carried out under faculty supervision. Project will proceed from problem definition to analysis, design and validation, experimentation including possible construction and testing.

Course Format

Technology Intensive, Hybrid, and Online Courses

This class requires the use of Canvas, so you will need access to the internet. Most, if not all, assignments during the semester will require the use of a computer for word processing, spreadsheet analysis, CAD drawings, etc. Electronic communication with your instructor and teammates is also required.

CourseWeb Page and MYSJSU Messaging

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on the 195 web page http://www.sjsu.edu/me/bsme/bsme_seniorproject/index.html

and/or on Canvas Learning Management System course login web site www.sjsu.instructure.com
You are responsible for regularly checking your email to learn of any updates.

Grading

A letter grade will be assigned to each student by the section instructor at the end of the semester and will be based on evaluation of the following course requirements:

- (25%) Delivery of at least three oral presentations on achievements and timely progress – see your section instructor for presentation guidelines.
- (15%) Individual writing assignments
- (45%) End-of-semester report and accomplishments (including completion of prototype and demonstration of performance) – See Final Report guidelines on senior project website
- (15%) Individual performance evaluation – See Evaluation Rubrics on senior project website.

Grade Distribution

A	93-100	A-	90-92.9		
B+	87-89.9	B	83-86.9	B-	80-82.9
C+	77-79.9	C	73-76.9	C-	70-72.9
D+	67-69.9	D	63-69.9	D-	60-62.9

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Individual Writing Assignment 1: Consider a technology in the Mechanical Engineering field

E123 Shop Accessand M

- Developing a complete set of functional specifications the design must meet
 - Generating solution concepts
 - Selecting the most promising design concept using structured methodologies
 - Developing design models and/or drawings for prototype and final design components
 - Procuring, fabricating, and assembling prototype and design hardware
 - Evaluating, testing, and analyzing prototype and final design components and systems
 - Identifying future modifications and improvements that could be made to the design based on test data
 - Writing a project report and making presentations
2. Develop a schedule and meet schedule and budget constraints.
 3. Interact effectively with vendors, suppliers, and shop personnel.

Communication Skills

4. Write high quality design reports (i.e., using correct language and terminology, correct technical information, and professionally prepared graphs and tables).
5. Give clear, informative, technically correct oral presentations using professionally prepared visual aids

Team Skills

6. Work harmoniously and effectively on a team to complete a design project

COURSE SCHEDULE (Subject to change)

Wk No	Date	Activities
1	1/29	General Session on Overview of ME 195B. Location: E189 (Dr. Yee in charge) at 1:30PM.
2	2/5	Individual sessions
3	2/12	Individual sessions

Important Notes

1. Each project team will make at least three oral presentations during the scheduled individual section meetings at times to be arranged by the section instructor
2. Students' participation in ALL scheduled individual and general sessions is mandatory unless they have a university authorized excuse. Absence from these sessions without the Section Instructor's permission will affect a student's individual performance evaluation.
3. Note that Conference Day is on a Friday. You are expected to attend your entire session, which typically will run most of the morning or afternoon. If you have an unavoidable conflict, discuss with your instructor at the beginning of the semester.