

San José State University
Charles W. Davidson College of Engineering
Department of Mechanical Engineering
ME 295A, Mechanical Engineering Project I, Fall 2019

Course and Contact Information

Coordinator:	Dr. Raghu Agarwal
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Email:	raghu.agarwal@sjsu.edu
Office Hours:	Tuesdays and Thursdays 4:30PM – 5:30PM
Class Days/Time:	TBA
Classroom:	TBA

Sections	Section 1 (41081, Dr. Raghu Agarwal)
	Section 2 (44359, Dr. Feruza Amirklova)
	Section 3 (44360, Dr. Amir Armani)
	Section 4 (44361, Dr. Saeid Bashash)
	Section 5 (44362, Dr. Winncy Du)
	Section 6 (44363, Dr. Buff Furman)
	Section 7 (44364, Dr. Crystal Han)
	Section 8 (44365, Dr. Tai-ran Hsu)
	Section 9 (44366, Dr. John Lee)
	Section 10 (44367, Dr. Nicole Okamoto)
	Section 11 (46882, Dr. Vimal Viswanathan)
	Section 12 (47781, Dr. Raymond Yee)
	Section 13 (50563, Dr. Fred Barez)

Prerequisites:	Admission to Candidacy for Master's Degree and written proposal approved by the instructor and graduate advisor.
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Reference:	Check the ME Department Website for MSME Program at http://www.sjsu.edu/me/programs/msme/
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Course Description

Advanced individual work in mechanical engineering, including but not limited to research, design, development, and simulation studies.

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

1. Conduct a literature review on a topic of engineering research using a full range of information sources
2. Summarize findings and draw valid conclusions from engineering research

3. Present the results of research work in front of peers following accepted presentation methods
4. Document the results of research work in a detailed engineering report following accepted format and style guidelines

Required Texts/Readings

None

Course Requirements and Assignments

All ME 295A (first semester) students are required to have their project proposals approved by their committee chair, Graduate Program Adviser and Department Chair prior to start of the semester in order to receive an enrollment permission number.

All the students are expected to:

- Make an end of the semester presentation.
- Provide an end of the semester report.

Course grades will be issued when the following items are received by the student's committee chair prior to the 'grades due date':

- A copy of semester report approved by the committee chair
- A copy of the approved 'Oral Presentation and Grade Form' by the committee members.
- Proof of the regular consulting with the advisory committee.

Important dates:

- **October 18:** Turn in a 2-page progress update report to the committee.
- **November 29:** Turn in the draft report for initial evaluation to the committee.
- **December 2-10:** Present the project to the committee.
- **December 17:** Turn in the approved semester report.

Semester Report:

The semester report must be prepared (and submitted to the committee chair and the committee members). The semester report must follow a professional report writing format, with proper grammar and composition. It must include sufficient review of the state-of-the-art literature, the application of modern tools, and the presentation of experimental or numerical results to date. Although not as complete as the final report that is submitted in ME 295B, the semester report should still be prepared professionally.

Except for replacing the words "thesis committee" with "project committee" and "thesis" with "project report", respectively, ME 295B report is expected to follow the same formatting guidelines as SJSU M.S. thesis, as defined by Graduate Studies at:

<http://www.sjsu.edu/gup/gradstudies/thesis/guidelines/>

For examples of these minor differences between theses and ME 295 reports, please ask your committee chair for past reports that you can mimic.

Grading Information

The grade will be determined based on the committee's evaluation on the following form, with each criterion given a score on a 0.0 and 4.0 scale (as in grade point averages), with 4.0 indicating "A", 3.0 indicating "B", and so on.

	Criterion	Score
1	Motivation for the work was convincing and clear objectives were defined.	
2	A thorough literature search was performed with proper citations, and an understanding of the cited literature was clearly evident.	
3	A methodical, in-depth analysis and/or design of a mechanical engineering system was performed, using appropriate assumptions as needed.	
4	Mathematical representations and computations were applied appropriately for graduate level work.	
5	Science and engineering fundamentals were applied appropriately for graduate level work.	
6	Modern tools (computational or experimental) were used effectively as needed.	
7	Results of the work were presented effectively, using graphs and tables appropriately as needed.	
8	The report was well written, with correct language and terminology used throughout.	
9	Key points of the work were summarized effectively and meaningful conclusions were drawn.	
10	Progress throughout the work was consistent with timely deliverables, while proactively soliciting input from the committee and incorporating accordingly.	
	AVERAGE:	

Determination of Grades

A final letter grade will be determined using the following thresholds:

Aggregate committee score	Course grade
3.70-4.00	A
3.30-3.69	A minus
3.00-3.29	B plus
2.70-2.99	B
2.30-2.69	B minus
2.00-2.29	C plus
1.70-1.99	C
1.30-1.69	C minus
1.00-1.29	D plus
0.70-0.99	D
0.30-0.69	D minus
0.00-0.29	F

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>