

**San José State University**  
**Department of Electrical Engineering**  
**EE 198B, Senior Design Project I, All Sections, Fall, 2009**

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<b>Office Hours:</b>	M 12:45-3:15, T 12:45-3:15
<b>Class Days/Time:</b>	Class does not meet during lab time. Meet with your group and advisor on your own. Mandatory attendance on the “Dead Day” to present your work orally.
<b>Classroom:</b>	ENGR 189 (For Final Presentations Only!)
<b>Prerequisites:</b>	198A with a C or better

### **Course Description**

**Implementation of group design projects initiated in EE 198A. Oral and written reports.**

### **Course Goals and Student Learning Objectives**

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

1. Design a system, device or component (c,k)
2. Fabricate a system, device or component (c,k )
3. Test a system, device or component(c ,k)
4. Work in a team. (d)R
5. Research an Electrical Engineering topic (i,j)
6. Write individual engineering reports (g)
7. Write final Engineering Team reports(g)
8. Orally present Engineering ideas and results(g)

The course requirements are:

- Carry out the project proposed in EE198A within specifications.
- Pass a skill-audit exam (80%).

- Meet with your advisor regularly as per his or her instructions.
- **Grading**
  - **If you do not finish your project you will be graded according to how much of the proposal you fulfilled. I grades will only be given for not following the presentation rules.**
  - Go/No Go In class Skill-audit exam. Students must pass this exam with a 80% to receive their 198B grade<sup>1</sup>. The exam will be given multiple times. Students must take on-line skill audit exam before attempting in class exam.
  - 25% Written proposal. Your proposal will be judged by your project advisor and one other EE faculty.
  - 25% Oral presentation. Your presentation will be judged by your project advisor and one other EE faculty.
  - 50% Advisor evaluation.

### **This GE/SJSU Studies Learning Outcomes (LO), if applicable**

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

LO2 Demonstrate the ability to apply the practice of Engineering in real-world problems.

### **Course Content Learning Outcomes**

- The students are able to apply knowledge and skills acquired in earlier coursework to identify, formulate, and propose a sound solution to an engineering problem (c,k)
- The students have an understanding of ethics, social implication of engineering, and the need for life-long-learning (i,f)
- The students can function in teams and can communicate effectively. (g)

### **Topics:**

- Team work and life-long learning
- Communication skills

### **ABET outcomes**

The letters in parentheses in the course learning objectives refer to ABET criterion 3 outcomes satisfied by the course. These are listed below as a reference:

- (a) An ability to apply knowledge of mathematics, science, and engineering
- (b) An ability to design and conduct experiments, as well as to analyze and interpret data
- (c) An ability to design a system, component, or process to meet desired needs

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<sup>1</sup> Non-EE students may take the skill audit exam for their own knowledge, but do not have to pass it, given that non-EE students will not have had all the required EE courses.

- (d) An ability to function on multi-disciplinary teams
- (e) An ability to identify, formulate, and solve engineering problems
- (f) An understanding of professional and ethical responsibility
- (g) An ability to communicate effectively
- (h) The broad education necessary to understand the impact of engineering solutions in a global and societal context
- (i) A recognition of the need for, and an ability to engage in life-long learning
- (j) A knowledge of contemporary issues
- (k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
- (l) Specialization in one or more technical specialties that meet the needs of companies
- (m) Knowledge of probability and statistics, including applications to electrical engineering
- (n) Knowledge of advanced mathematics, including differential and integral equations, linear algebra, complex variables, and discrete mathematics
- (o) Basic sciences, computer science, and engineering sciences necessary to analyze and design complex electrical and electronic devices, software, and systems containing hardware and software components

## **Required Texts/Readings**

### **Textbook**

NA

### **Other Readings**

## **Classroom Protocol**

### **Cell Phones:**

Students will turn their cell phones off or put them on vibrate mode while in class. They will not answer their phones in class. Students whose phones disrupt the course and do not stop when requested by the instructor will be referred to the Judicial Affairs Officer of the University.

### **Computer Use:**

In the classroom, students are allowed to use computers only for class-related activities. These include activities such as taking notes on the lecture underway, following the lecture on Web-based PowerPoint slides that the instructor has posted, and finding Web sites to which the instructor directs students at the time of the lecture. Students who

use their computers for other activities or who abuse the equipment in any way, at a minimum, will be asked to leave the class and will lose participation points for the day, and, at a maximum, will be referred to the Judicial Affairs Officer of the University for disrupting the course. (Such referral can lead to suspension from the University.) Students are urged to report to their instructors computer use that they regard as inappropriate (i.e., used for activities that are not class related).

### **Academic Honesty:**

Faculty will make every reasonable effort to foster honest academic conduct in their courses. They will secure examinations and their answers so that students cannot have prior access to them and proctor examinations to prevent students from copying or exchanging information. They will be on the alert for plagiarism. Faculty will provide additional information, ideally on the green sheet, about other unacceptable procedures in class work and examinations. Students who are caught cheating will be reported to the Judicial Affairs Officer of the University, as prescribed by [Academic Senate Policy S04-12](#).

“You are responsible for understanding the policies and procedures about add/drops, academic renewal, withdrawal, etc. found at <http://www2.sjsu.edu/senate/S04-12.pdf>

- Expectations about classroom behavior; see [Academic Senate Policy S90-5](#) on Student Rights and Responsibilities.
- As appropriate to your particular class, a definition of plagiarism, such as that found on Judicial Affairs website at <http://www2.sjsu.edu/senate/plagiarismpolicies.htm>
- “If you would like to include in your paper any material you have submitted, or plan to submit, for another class, please note that SJSU’s Academic Integrity policy

### **Dropping and Adding**

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. [Information on add/drops are available at http://info.sjsu.edu/webdbgen/narr/soc-fall/rec-298.html](http://info.sjsu.edu/webdbgen/narr/soc-fall/rec-298.html). [Information about late drop is available at http://www.sjsu.edu/sac/advising/latedrops/policy/](http://www.sjsu.edu/sac/advising/latedrops/policy/). Students should be aware of the current deadlines and penalties for adding and dropping classes.

### Grading Percentage Breakdown

94% and above	A
93% - 90%	A-
89% - 87%	B+
86% - 84%	B
83% - 80%	B-
79% - 77%	C+
76% - 74%	C
73% - 70%	C-
69% - 67%	D+

66% - 64%	D
63% - 60%	D-
below 60%	F

## University Policies

### Academic integrity

Students should know that the University's [Academic Integrity Policy is available at http://www.sa.sjsu.edu/download/judicial\\_affairs/Academic\\_Integrity\\_Policy\\_S07-2.pdf](http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf).

Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University's integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The website for [Student Conduct and Ethical Development is available at http://www.sa.sjsu.edu/judicial\\_affairs/index.html](http://www.sa.sjsu.edu/judicial_affairs/index.html).

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors.

### Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

### Conference Day

- Students must turn-in presentation materials to Ms. Irma G. Alarcon at least 1 day before the presentation date so that Ms. Alarcon can put them on the department laptops. Please let Irma know if you need anything special to demonstrate your project. (Oscilloscopes, power supplies etc.)
- Students can use their memory stick on the presentation day if they want to use the updated ones (if any) but they are still required to turn-in the presentation materials as stated above. (You still have only 20 minutes.)
- There will be 1 LCD projectors in each presentation room. One LCD projector will be connected with the department laptop for all presentations
- All presenters must arrive to their session at least 15 minutes before the session start. Session Chair will make role-call 15 minutes before the start of the first presentation for that session.
- Students who arrived late to the session will NOT be allowed to present and advisors will be notified. In this case, session chair will make suggestion to project advisor for “incomplete” grade. As an example, if one member of a 4-member group arrived late, this member will not be allowed to present and will receive “I” grade. It is the

responsibility of the advisor to make arrangement with EE198B project coordinator for this particular student to make presentation next semester in order to clear the “I” grade.

- Each presentation is about 20 minutes long, including Q/A.
- Each presentation session is about 1.5 to 2 hours long and students are not allowed to enter or leave during the session. Session chair will report students who left the presentation session early.
- All sessions must start and end on time as scheduled. Session chairs must seriously keep track of the presentation time.
- There will be 30-minute break between.
- Session chairs are required to fill out a form and turn-in it to EE198B coordinator at the end of the presentation day. This form includes:
  - Students who missed the presentations or arrived late.
  - Students who left the presentation session early.
  - Evaluation of oral presentation skills (scores and comments) of each group, including professional attitude, language used, dress code, etc.
  - Nomination of presentations for posting on Senior Project webpage.
  - Additional comments if any.