EE411 Course Policy Statement

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There are several purposes of this course:

- To review and connect the concepts covered throughout the electrical and computer engineering curriculum.
- To provide the student with practice in the design, implementation, analysis, and verification of performance of electrical and computer engineering projects in a realistic project development laboratory situation.
- To develop important professional skills including technical writing ability and presentation skills.
- To develop an understanding of engineering ethics and the ability to consider technical issues in their global context.
- To lay the foundation for the project that will be completed in EE414 or EC415.

Some of the things we do in this course will presume that you have retained knowledge and proficiencies from your previous courses. If you have not, it is incumbent upon you to get yourself back up to speed or be prepared to suffer the consequences.

Textbooks:

Engineering Design, A Project Based Approach, 3rd Ed., by Dym and Little
Pocket Book of Technical Writing for Engineers and Scientists, 3rd Ed., by Finkelstein

Grading: The grading distribution will be as follows:

Activity	***6 wk***	***12 wk***	***Final***
Key Points Reviews	10%	10%	5%
Project Assignments	40%	40%	10%
Conceptual Design Presentation	20%	20%	10%
Concept Tests	20%	20%	10%
Project Notebook	10%	10%	10%
Proposal Defense			20%
Proposal			30%
End of Term Project Progress / Peer Evaluation			5%

As course instructor, I also reserve the right to adjust your grade as I see fit.

Your *presence* is required: Occasionally, students are tempted to work on assignments for other classes with more immediate deadlines than capstone design. *This is a bad idea.* If a student is caught working on another class during capstone time, their course material will be confiscated and delivered to their company officer. They will also receive an automatic 5% reduction in their grade for the semester. A similar penalty will be incurred for web surfing that is unrelated to the project, texting or social media use.

Key Points Reviews: In order to make the most of our class time, you will be required to read the course material ahead of time and complete a short assignment. These assignments should take 30 minutes to an hour to complete. They must be completed before class and late work *will not be accepted*. If you are going to miss class when the homework is due, send in the assignment with a classmate.

Project Assignments: Your development of a proposal for your project has been divided into several sections. With each proposal stage, you should make the revisions recommended by your reviewers to your early work as well as include the newer section. Only one project assignment should be completed per team, but all members of the team should contribute.

Conceptual Design Presentation: During the 6-week exam periods you will be presenting your initial concept for your project to the class. This is a chance to practice your oral presentation skills as well as to better define your project. You should present your project as a team, but each individual should speak for part of the presentation.

Concept Tests: There will be two tests over the course of the semester that will cover the lecture material on formalized design methods, project management and engineering ethics.

Project Notebook: Throughout the semester each team should maintain a project notebook documenting the progress of your capstone project. This notebook will be collected at each grading period and evaluated. The notebook should be legible, well organized, and contain regular entries. See the project notebook grading rubric sheet for more details.

Proposal Defense: During the last two weeks of class your team should schedule a 45-minute block for your proposal defense at a time that is convenient for your project mentors, all team members, and the capstone coordinator. Your proposal defense should be a well-reasoned presentation of the problem you are trying to solve, your objectives and how you plan to measure them, your design requirements, the functional decomposition of the system, design alternatives that you considered and your reasoning for the chosen

solution, the architecture and details for your chosen solution, your work breakdown structure, cost estimate, and progress towards the solution at the mid-year mark. Expect questions. The team should make one presentation, and all members should participate.

Proposal: The full project proposal should be a well-developed plan for your capstone. Only one proposal is necessary per team. Your full project proposal should also identify the deliverables to be completed by the end of the semester that you and your mentor feel would demonstrate reasonable progress towards the completion of your capstone project. Your proposal should address the comments and suggestions that you will have received on your project assignments. You will also receive extensive feedback on your proposal which you should address in a final revision that will be due at the end of the semester. The revised project proposal will count as your final exam for this course.

Your Project Mentor(s): You should be meeting with your mentor(s) *weekly*. It is your responsibility to schedule these meetings. You should also turn in copies of all of your project assignments and proposal to both your mentor team and the capstone coordinator. Your mentor will also contribute to your project-related grades for the class.

Peer Evaluation: Since much of our work will be in teams, students will be assessed both by the instructor and also by their peers to ensure that they are "pulling their weight." At the end of the term, those of you in group projects will also complete an anonymous peer evaluation that assesses the relative contributions of yourself and your team members. You should be honest and professional with this evaluation.

Plagiarism: You must properly reference the work of others and ensure that your contribution is clear in your writing *and presentations*. We will discuss plagiarism more on the first day of class, but here are some essential points:

- When presenting information that you gathered from another source, be sure to paraphrase rather than directly copy text. If directly quoting, the text should be set apart with italics or quotation marks. Direct quotation of this sort is rarely necessary for technical writing, and paraphrasing is preferred.
- Paraphrasing is not just taking the same sentences and changing a few words. We will discuss some examples in class of proper and improper paraphrasing.
- Always reference information that you gathered from another source, either using a footnote or an endnote, with a citation to the reference at the point in the text where the information is used; don't just put a list at the end of the document of "sources used."
- When referencing material that was found on-line, you should include the name of the organization that produced the web site, if known, and the access date. Be wary of on-line sources.
- **You should provide a citation for every figure that you do not generate yourself in presentations and in written work.** This can be done with small-font text on the edge of the figure, like a photo credit. For this purpose it is sufficient to provide the web address if no more is known about the figure than its web location. This is not common practice, unfortunately, but it is easy to do and a good professional habit.

E-mail and the Internet: I rely heavily on email to communicate. Make it a practice to check your email every night.

Section Leader Duties: The Section Leader will be appointed by me and will be responsible for calling the class to attention and taking attendance for each class. If the Section leader is absent, the ably and randomly appointed assistant will assume her/his responsibilities. In the unlikely event that I am late for class in excess of 10 minutes, the section leader shall contact the ECE office (3-6150) to inquire about my whereabouts. If my absence is verified and no substitute is available, the section leader will monitor the class in a study period, collect any homework due and deliver the homework to the ECE Dept office at the end of the period. The Section Leader is also responsible for mustering the class and reporting the status to me. In the event

Calculators: For calculator use in Electrical and Computer Engineering (ECE) courses taught to engineers, it is the policy of the ECE Department to only allow calculators that have been approved for the Fundamentals of Engineering Exam (FE). Acceptable calculators are listed at: http://www.ncees.org/Exams/Exam-day_policies/Calculator_policy.php. These run in price as low as $15, and are required for all ECE Department courses.

Other: Proper classroom decorum will be maintained at all times. Sleeping is not allowed. There is no shame in standing if you feel drowsy. Beverages are permitted in the lecture area, but not at the lab benches. If your project work requires that you leave the classroom during class hours you will inform the instructor and record your work location on the chalkboard by the door of Ri-002. (**Bancroft is never an acceptable alternative work location**.) You can expect that the instructor will check these claims, and that lies will be treated as an honor offense. If you cannot make it to lecture or lab, I expect an email ahead of time letting me know why.