

EEL 4915: Senior Design 2
Summer 2005

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- Goals:** To provide students a complete design experience, including the necessity to set design goals and objectives, integrate knowledge, exercise engineering judgment, plan to meet a budget and a schedule, to work as a team member, and to communicate in writing.
- Course Structure:** This course is the first part in a 2-course sequence. In the first course the student should have select a team and propose a project. The complete design documentation should have been delivered at the end of the first semester and was used to determine the first semester's grade. In the second semester the proposed project will be manufactured. At the end of senior design 2 each team will present and demonstrate their project to a review panel made up of at least 3 UCF faculties and the instructor. This panel will recommend the final grade for senior design 2.
- Rule:** Each team must demonstrate functionality of their project in order for them to pass senior design 2. There are no exceptions. Factors that are beyond your control are not considered valid excuses. This does not mean that every part of the project must work perfectly. Projects that function, although poorly, satisfy this rule. The panel will determine the functionality of the project.
- Projects:** By the end of Senior Design 2, all projects will be physically realized, documented, and demonstrated. It is expected that the proposed project will be completed by the end of senior design 2. Incomplete projects will receive an incomplete grade till they get completed
- Consultations:** Consultation on each project will be available either from the course instructor, or from any other SEECs faculty who has expertise on the subject, through appointments. There is a limit on the amount of help that you can receive from consultation. The instructor or the consulting faculty member may provide recommendations, but by no means are responsible neither to design parts of your project for you, nor to solve all the problems that you may have.
- Expenses:** All expenses are the responsibility of the student.
- Grading:** The grade you receive for this course is almost entirely based on input from external reviewers consisting of both you classmate's evaluation of your critical design review (less weight) and the faculty evaluations in your final presentation (heavy weight). However the course instructor makes the final decision taking into account this data.

Final Review: Each team will make a final presentation to a committee composed of at least 3 UCF faculties of which 2 must be from the college and one may be from outside the college. It is the responsibility of the student to find the reviewers and ask them to participate. Furthermore the students must coordinate a time to present with the committee.

Critical Design

Review: The critical design review (CDR) is a practice presentation. Each team must present their latest design to the class during their scheduled time. The presentation follows the format of the final presentation and is explained in the following pages. Since your project may not be complete by the time of the CDR you may present the latest material. Each student in the class will evaluate your performance and turn in an evaluation form. Your grade for this course is in part based on these evaluations so you need to perform as good as you will in the final design presentation. During the critical design reviews all students must attend class. Each student may miss up to 3 evaluations. Missing more than that will jeopardize your final grade.

Computer

Usage: There will be no specific computer assignments. However, word processing is required for all documentation. Some projects can utilize computer simulation during the design, while others can be based on personal or single board computers where software and/or hardware development will be required.

Laboratory: No formal laboratory work is required. However, many projects require hardware construction, debugging, and testing. The Senior Design Laboratory will be available for this purpose. In order to protect project installations, only students that are registered in the class will be allowed in the lab.

NOTE: Some students prefer to use their home laboratories for their convenience. It is however advised that students use as much as possible the university laboratory facilities so that maximum interaction with the instructor or faculty advisor can be maintained. All workstations should at anytime be clean and neat. Building a prototype is by no means equivalent to creating a mess. You can work in the lab during non-business hours and weekends (if so desired), by requesting an electronic lab key. See however the warning below.

University policy requires that for safety reasons, at least two people must be present in the lab at any time. Violators will be asked, either by faculty or staff, or the police, to leave the lab premises. Since it is not possible to enforce this policy at all times, violators that are not caught will be working entirely at their own risk.