Capstone Electrical Engineering Design Projects
Electrical and Computer Engineering Department
University of California, Santa Barbara

Class Meeting Time:

Time: MW 2:00-3:15pm
Place: PHELPS 1431
Instructor: Dr. Ilan Ben-Yaacov, ESB room 2213, ext 5295, ilan@engineering.ucsb.edu
Office Hours: Tues/Thurs 10:50-11:50am in ESB room 2213 or by appointment

Course Description and Objectives:

In this course, students work in teams under the direction of a faculty advisor to tackle a challenging engineering design project. Engineering communication, such as reports and oral presentations are covered. The course emphasizes practical, hands-on experience, and integrates analytical and design skills. Students will develop skills in design problem solving, creative thinking, project planning, and teamwork, as well as developing technical and practical skills in the particular area(s) of research covered by their project.

Topics/Tasks Covered:

-   Finalizing Product Design
-   Product Assembly and Implementation
-   Product Ownership: Know-How and Intellectual Property
-   Product Presentation and Demonstration

Course Format:

In ECE 188, students design, build, and present a challenging engineering design project. In ECE 188B, the final quarter of the sequence, students finalize their designs and product specifications, and then assemble, present, and demo their products. Each group will also submit an operator's guide detailing their design and technical specifications. Final products will be evaluated based on the final specifications that were set out for the product. Grades will be assigned approximately as follows:

-   Winter Quarter Updates/Demos: 25% of Spring grade
-   Final Project Design/Specs: 10% of Spring grade
-   Final Presentations/Demonstrations/Reports: 55% of Spring grade
-   Individual Contribution: 10% of Spring grade

Class Web Page: http://www.ece.ucsb.edu/courses/ECE188/188_F13Ilan/

DAY / DATE	TOPIC / ACTIVITY	TASK / ASSIGNMENT
Week 1		
Wed 4/2	Branding, trademarks	Finalize product brand name
Week 2		
Wed 4/9	Present/discuss brand names Discuss abstracts	Prepare final product design and specs
Week 3		
Mon 4/14		Final product design and specs due 5pm.
Wed 4/16	Group presentations	Project presentation to class.
Week 4		
Mon 4/21		Abstracts due by 5pm.
Wed 4/23	Group presentations	Work on projects!
Week 5		
Wed 4/30	Poster info session	Work on projects!
Week 6		
Wed 5/7	Group Meetings (no class)	Group meetings with instructor
Week 7		
Wed 5/14	Group Meetings (no class)	Work on projects!
Week 8		
Wed 5/21	Progress updates	Group meetings with instructor
Week 9		
Wed 5/28	Final Group Presentations	Work on projects!
Week 10		
Wed 6/4	Practice presentations / set-up	
Thurs 6/5	**Capstone Presentation Day**	Poster Presentations / Demos Operator's guide and individual/group evaluations due 6/12 by 5pm.