Course: ECE 40600 - Senior Engineering Design II

Cross-listed Course: ENGR-41100

Type of Course: Required for the CmpE and EE programs

Catalog Description: Design II is an extension of Design I and includes but is not limited to (1) continued research, design, and implementation; (2) oral presentation and/or demonstration of the project to faculty and other interested parties; (3) answering appropriate questions related to the project; (4) generation of a final technical report documenting design, development, and performance of project.

Credits: 3

Contact Hours: 1

Prerequisite Courses: ECE 40500 or ENGR 41000

Corequisite Courses: None

Prerequisites by Topics

Textbook: None

Course Objectives: To develop capabilities of students to solve real-life problems. Students have to apply knowledge from their previous course work to accomplish projects formulation to prototype evaluation.

Course Outcomes: Students who successfully complete this course will have demonstrated:

1. The ability to identify the various parameters that need to be determined in order to evaluate the prototype with the basic design that was obtained in the first semester. (c)
2. The ability to build, test and evaluate the basic design completed in the first semester. (c)
3. The ability to function within a team. (d)
4. The ability to present his/her work both written and orally. (g)
5. Knowledge of contemporary issues. (j)
6. Understanding of the ethical issues that are associated with the engineering profession. (f)
7. Understanding of the societal impact of engineering. (h)
8. Recognition of the need for life-long learning. (i)

**Lecture Topics**
1. Knowledge of contemporary issues
2. Societal impact of engineering
3. Life Long Learning
4. Engineering Ethics

**Computer Usage**
High

**Laboratory Experience**
High

**Design Experience**
High

**Coordinator**
Carlos Pomalaza-Ráez, Ph.D.

**Date**
11/18/13