

EE 396 Junior Project

Designation: Required

Catalog Description: EE 396 Junior Project (V) Junior level individual or team project under EE faculty direction and guidance. The project provides design experience and develops practical skills. It may be a continuation of EE 296 or a new project. Repeatable unlimited times. Pre: 296 and junior standing or consent.

Credits: EE students are required to take at least 2 credits.

Pre- and Co-requisites: Pre-requisite: Junior standing and EE 296 Sophomore Project.

Class/Lab Schedule: Meetings are arranged by the student and faculty advisor.

Topics Covered:

A student participates in intermediate-level design as part of a project, either individually or in a team. Most of the following topics will be covered:

- Data collection and analysis
- Design methodology
- Design tools
- Instruments
- Engineering standards
- Practical constraints

The number of hours dedicated to each topic depends on the project that is undertaken.

Textbook and Other Required Materials: Varies with projects and is determined by the faculty advisor.

Course Objectives and Relationship to Program Objectives:

A student participates in intermediate-level design as part of a project. Project activities provide a moderate amount of design experience. They include most of the following: open-ended design, data collection and analysis, and learning design methodologies, design tools, instruments, engineering standards, and practical constraints. The projects may be individually structured or in teams, where a team can be a mix of beginning to advanced level students. The project may be a continuation of an EE 296 project or an entirely new project. A student must give 30 minutes of oral presentation and provide a written report. [The course addresses the following Program Objectives: 1, 2, and 4.]

Course Outcomes and Their Relationship to Program Outcomes

The following are the course outcomes and the subset of Program Outcomes (numbered 1-11 in square braces "[]") they address:

- Accomplish intermediate-level design with respect to engineering standards and practical constraints. [3,5,11]
- Learn new design methodologies; tools; techniques for data collection and analysis; and/or instruments with minimal instruction from the faculty advisor. [9,11]
- Orally communicate design and engineering concepts effectively. [7]
- Prepare clear written reports. [7]

Contribution of Course to Meeting the Professional Component

"Engineering topics: 100%"

Computer Usage:

Varies depending on the project.

Design Credits and Features:

The course has 1 design credit because it provides intermediate-level design experience.

Instructor(s): All EE faculty

Person(s) Preparing Syllabus and Date: Galen Sasaki for the Undergraduate Curriculum Committee, November 19, 2003. Revised by W. Shiroma Dec. 12, 2008.