

EE 196 Freshmen Project

Credits: 1 or more credits. This is not required by EE students and cannot be counted towards an EE Technical Elective.

Categorization of credits: engineering topic

Instructor(s): All EE faculty

Designation: Elective

Catalog Description: EE 196 Freshmen Project (V) Freshman level individual or team project under EE faculty direction and guidance. This project provides early student entry into EE hands-on project activity providing practical skills, EE subject exposure and experience. Second semester freshman standing required. Repeatable unlimited times. Pre: consent.

Pre- and Co-requisites: Second semester freshman standing.

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

Topics Covered:

A student is introduced to EE subject areas and the design process. The student may learn some of the following:

- 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 project and determined by the faculty advisor.

Course Objectives and Relationship to Program Objectives:

A student participates in a project to learn more about EE subject areas and gain hands-on experience. The student is not required to do design but may assist others. Project activities may include assisting with 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. A student must give 30 minutes of oral presentation and provide a written report. [The course addresses the following Program Objective: 4.]

Course Outcomes and Their Relationship to Program Outcomes

The following are the course outcomes and the subset of Program Outcomes (numbered 1-7 in square braces "[]") they address:

- Some exposure to the design process with respect to engineering standards and practical constraints. [1, 2, 7]
- Learn new design methodologies; tools; techniques for data collection and analysis; and/or instruments with minimal instruction from the faculty advisor. [7]
- Orally communicate design and engineering concepts effectively. [3]
- Prepare clear written reports. [3]

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 0 design credits since the student is not required to demonstrate the ability to design.

Person(s) Preparing Syllabus and Date: Galen Sasaki for the Undergraduate Curriculum Committee, Feb. 17, 2003. Revised by W. Shiroma Dec. 12, 2008. Revised by Anthony Kuh Mar. 23, 2009. Reviewed by Yingfei Dong, Oct. 6, 2014. Revised by Matthias Fripp, Jan. 21, 2021.