EE 296 Sophomore Project

**Designation:** Required

**Catalog Description:** EE 296 Sophomore Project (V) Sophomore level individual or team project under EE faculty direction and guidance. The project provides design experience and develops practical skills. Repeatable unlimited times. Pre: sophomore standing or consent.

**Credits:** EE students are required to take at least 1 credit.

**Pre- and Co-requisites:** Pre-requisite: Sophomore standing.

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

**Topics Covered:**
A student participates in beginning-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 determined by the faculty advisor.

**Course Objectives and Relationship to Program Objectives:**
A student participates in beginning-level design as part of a project. Project activities provide some 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. A student must give 30 minutes of oral presentation and provide a written report. [The course addresses the following Program Objectives: 1, 3, 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 beginning-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 0.5 design credits because it has beginning level design.

Instructor(s): All EE faculty