

1. *Course number and name*

ENGR 696: Engineering Design Project I

2. *Credits and contact hours*

1 Credit Hour, One 2-hour-45-minute lab session/week.

3. *Instructor's or course coordinator's name*

Instructor: Timothy D'Orazio and Cheng Chen Professor of Civil Engineering
Course coordinator: Timothy D'Orazio, Professor of Civil Engineering

4. *Text book, title, author, and year*

None

a. other supplemental materials

None

5. *Specific course information*

a. brief description of the content of the course (catalog description)

Selection of design project, methods of research, time management, engineering professional practice, and ethics.

b. prerequisites or co-requisites

Completion of at least 21 upper division units in engineering.

c. indicate whether a required, elective, or selected elective course in the program

Required for Civil Engineering.

6. *Specific goals for the course.*

- Student utilizes a systematic approach to the different stages of the design process.
- Student uses library (conventional) and electronic means to access technical and component information related to the design project.
- Student is aware of professional engineering societies.
- Student forms a team with other students, prepares a preliminary proposal and secures a faculty advisor for the senior project.
- Student team develops a thorough project description including a time-task schedule, which is detailed in the final proposal.
- Student team describes early project work using oral and written progress reports. Student attends 3 professional seminars and 2 society meetings.
- Student fully participates with the team in making decisions, allocating responsibilities and sharing project work.
- Student submits all homework in the form of engineering technical memos.
- Student prepares and presents effective oral and written presentations describing the project.
- Student recognizes importance of punctuality, participation, communication skills and teamwork in the professional setting.

- a. explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course.

Course addresses ABET Student Outcome(s): c, d, e, f, g, h, i, j, k

7. *Brief list of topics to be covered*

- Design process and methodology
- Scheduling and time management
- Literature, resource, and component information gathering
- Oral and written communication
- Career development
- Ethics
- Professionalism