**1. Course number and name**

ENGR 696: Engineering Design Project I

**2. Credits, contact hours and categorization of credits in Table 5-1**

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

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

Instructor: Timothy D’Orazio, 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*

​ SAP2000, AutoCad, SolidWorks

**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.**

*a. Specific outcomes of instruction*

• 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.

*b. 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): 1, 2, 3, 4, 5, 6, 7

**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