

Department: CE

Course No.: 280W

Title: Civil Engineering Projects

Credits: 3

Contact: Gregory C. Frantz

WQ: W

Catalog Copy: 280W. Civil Engineering Projects. Either semester. Three credits. Two 3-hour laboratory periods. Prerequisite: Departmental consent required; ENGL 105 or 110 or 11 or 250. This course can be taken no sooner than the semester in which the student completes the Profession Requirements for the B.S. degree.

Design of Civil Engineering Projects. Students working singly or in groups produce solutions to Civil Engineering design projects from first concepts through preliminary proposals, sketches, cost estimations, design, evaluation, oral presentation and written reports.

W Criteria:

Course Objectives

This course is also known as the "Capstone Design Course," as its purpose is to have students apply knowledge of science and engineering towards solving specific, significant engineering problems. Consequently, upon successful completion of this course, each student will have demonstrated an ability to do the following:

- 1) Recognize the pertinent issues surrounding an engineering problem.
- 2) Write a clear, coherent, technical proposal for designing a solution to the problem.
- 3) Design a solution to the problem that considers the unique context in which it is posed.
- 4) Present solutions to both the technical and non-technical audiences in oral, written and graphical form.

Grading:

Project Proposal 20% Written Proposal and Oral PowerPoint Presentation

Major project 80%

[15% weekly progress reports

5% oral progress report by PowerPoint

20% oral PowerPoint presentation.

40% final project report*]

* Each report page including: write-ups, field notes, design calculations and drawings shall be initialed.

The project proposal that discusses the scope and design approaches will be prepared by each group and be at least 6 double-spaced typewritten pages (vita excluded). After the instructor reviews the first draft, the proposal will be revised and resubmitted.

There will be six progress reports during the design phase of the project. These are to be one-page long, single-spaced, in business letter form. Each progress report will be prepared after consideration of the instructor's comments on prior progress reports. The final report on the major design project will contain at least five double-spaced pages from each individual. Each individual's contribution must be identified.