CIV 440 - Senior Design I

Current Catalog Description: Students will participate in structured engineering projects under supervision. They will be assigned to carry out significant professional responsibilities and whatever additional assignments are determined by their advisors. Assignments will cover in-situ data management and testing, specific limits, engineering judgments and reporting.

Prerequisite: CIV 305 and 312 and 320 and 330 and 340

Corequisite: None

Textbooks and/or Other Required Material: None

This course is: Required

Topics Covered:

1. Project Orientated Capstone to the principles and practices of civil and environmental engineering design.
2. Will focus on team projects under the advisement of faculty members or outside industrial partners on relevant topics to civil engineering, e.g. transportation, structures, environmental engineering, wastewater treatment, soils, hydrology, abatement, etc
3. Written and oral reports

Course Learning and Student Outcomes:

Course Learning Objectives	ABET Student Outcomes
Design a system, component or process under realistic constraints and understand the impact of an engineering project in a social and/or global context	1, 2, 4
Be able to implement basic concepts in project management, business, public policy, and leadership.	5
Understand the meaning of the term “profession” and the importance of professional licensure.	4, 5
Be able to include principles of sustainability, security and resiliency in design.	6, 7
Function effectively as a member of a team,	5
Develop and write an engineering design report.	3
Prepare a detailed project poster and a PowerPoint presentation.	3

Prepared by: Frank M. Russo (2020)