

# Civil Engineering Global Capstone I

# **CIVILEN 4011**

## **Credit Hours:**

2.00 - 2.00

#### **Course Levels:**

Undergraduate (1000-5000 level)

## **Course Components:**

Lecture

Lab

## **Course Description:**

Part 1 of a two semester course sequence satisfying the culminating design component in the curriculum for students in Civil Engineering set in a global development context. Must be taken in sequence with CivilEn 4012, taken as close to graduation as possible.

## **Prerequisites and Co-requisites:**

Prereq: 2410, 2810, 3080, 3130, 3160, 3310, 3510, 3540, 3541, 3700, 4320 or 4350, and EnvEng 3200; or permission of instructor.

## **Course Goals / Objectives:**

- Synthesize knowledge from their prior coursework to identify, formulate, and evaluate design alternatives in the context of a multidisciplinary civil engineering project that incorporate criteria.
- Criteria includes: economics, aesthetics, and social, cultural, political, and environmental issues and impacts.
- Prepare engineering documents such as engineering drawings and general notes, technical reports, and proposals
- Prepare and present professional oral presentations for a variety of audiences.
- Perform effectively as a member of a multi-disciplinary team.

# **Course Topics:**

- The first semester (Capstone 1) will be focused on evaluating design alternatives based on stakeholder needs, developing designs (building on previous work if appropriate),
- preparing a detailed technical report, preparing professional drawings, and preparing a detailed project work plan for the second semester (Capstone 2).

# **Designation:**

Required