



<b>Course Code</b> CVEE-492	<b>Course Title</b> Capstone Project Design II	<b>ECTS Credits</b> 6
<b>Department</b> Engineering	<b>Semester</b> Spring, Fall	<b>Prerequisites</b> Senior Standing and Approval by the Department
<b>Type of Course</b> Required	<b>Field</b> Civil & Environmental Engineering	<b>Language of Instruction</b> English
<b>Level of Course</b> 1 <sup>st</sup> Cycle	<b>Year of Study</b> 4 <sup>th</sup>	<b>Lecturer(s)</b> Dr George Gregoriou
<b>Mode of Delivery</b> Face-to-face	<b>Work Placement</b> N/A	<b>Co-requisites</b> None

### **Objectives of the Course:**

The Capstone Project Design is taken in the 4<sup>th</sup> year of studies in two semesters: during the first semester, the course CVEE-491 Capstone Project Design I (4 ECTS) and during the second semester, the course CVEE-492 Capstone Project Design II (6 ECTS)

The main objectives of this course are to:

- Teach students important research techniques and practices
- Introduce students to practical engineering design
- Create the foundation where the students will have the opportunity to utilize theoretical knowledge and engineering tools/techniques acquired throughout the years in order to design, build, and test their idea in a laboratory environment
- Promote team work and practical experience in a multi-disciplinary environment
- Teach students how to write proper reports and how to present their work in front of their colleagues
- Ensure that students know how to properly set up appropriate measurement and troubleshooting procedures including proper use of laboratory equipment
- Promote engineering ethics and respect to the environment and society
- Teach students how to properly plan their activities in order to successfully achieve their design goals and, more importantly, how to meet their own deadlines

### **Learning Outcomes:**

Upon completion of the course students are expected to:

- Use research skills on an engineering topic in order to reach a successful design for their project idea
- Operate specialized equipment and use computational/simulation tools
- Design and construct a working engineering application starting from a basic

- project idea and a set of constraints/specializations
- Write good technical reports and effective presentations
  - Organize and schedule project activities in order to successfully complete an engineering project
  - Test and troubleshoot their prototype
  - Demonstrate team work and collaboration with others toward a successful completion of a project
  - Identify important principles of ethics in engineering practices

**Course Contents:**

Independent-type of work involving research, design, implementation, testing, and troubleshooting

**Learning Activities and Teaching Methods:**

Lectures/seminars and project supervision

**Assessment Methods:**

Progress reports, presentation, final Report

**Required Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
As needed				

**Recommended Textbooks/Reading:**

Authors	Title	Publisher	Year	ISBN
As needed				