



Course Syllabus

Course Code	Course Title	ECTS Credits
MENG-494	Capstone Design Project I	6
Prerequisites	Department	Semester
Senior Standing and Department Approval	Engineering	Fall, Spring
Type of Course	Field	Language of Instruction
Required	Engineering	English
Level of Course	Lecturer(s)	Year of Study
1 st Cycle	Dr Harry Iordanou	4 th
Mode of Delivery	Work Placement	Corequisites
Face-to-Face	N/A	None

Course Objectives:

The Capstone Design Project course is taken in the 4th year of studies in two semesters: during the first semester, the course MENG-494 Capstone Design Project I (6 ECTS) and during the second semester, the course MENG-496 Capstone Design Project II (12 ECTS)

The main objectives of this first 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 to design, build, and test their idea in a laboratory environment.
- Promote teamwork and practical experience in a multi-disciplinary environment.
- Teach students how to write proper reports and 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 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 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 to successfully complete an engineering project
- Test and troubleshoot their prototype.
- Demonstrate teamwork and collaboration with others toward a successful project completion
- Identify important principles of ethics in engineering practices.

Course Content:

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

Learning Activities and Teaching Methods:

Lectures/seminars and project supervision

Assessment Methods:

Project design proposal, progress reports, presentation

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
As needed				

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
As needed				