FINAL PROJECT THESIS

COURSE OUTLINE

Responsible: Georgios Arnaoutakis

1. GENERAL			
SCHOOL	School of Engineering		
ACADEMIC UNIT	Department of Mechanical Engineering		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	0813.9.014.0	**SEMESTER**	Winter/Spring
COURSE TITLE	Final Project Thesis		

INDEPENDENT TEACHING ACTIVITIES if credits are awarded for separate components of the course	**WEEKLY TEACHING HOURS**	**CREDITS**
	0	30
Total	**0**	**30**

COURSE TYPE general background, special background, specialised general knowledge, skills development	
PREREQUISITE COURSES	None
LANGUAGE OF INSTRUCTION and EXAMINATIONS	
OFFERED TO ERASMUS STUDENTS	Yes (in English) — Both Winter and Spring Semesters
COURSE WEBSITE (URL)	

2. LEARNING OUTCOMES

Learning outcomes

After the successful preparation of the Thesis, students will be able to tackle a fairly complex engineering topic, that is:

- to grasp its complexity
- to identify the individual requirements (scientific, technical, organizational, economic)
- to seek the best from a series of proven solutions
- to design its implementation
- to design, analyze and simulate its operation, if necessary
- to construct or supervise and coordinate its construction
- to evaluate its performance
- to propose improvements

General Competences

Through the preparation of their thesis, and depending on its topic, students also will have the opportunity to develop the following general skills:

- communication skills through their communication with stakeholders from the technical, academic and administrative fields in the subject of their thesis and the promotion of their work through all available printed

and electronic media

• the ability to research, search and exchange information or data through their work in an international academic environment

• to write comprehensive, technically and linguistically sound scientific-technical texts

• to present and support their work publicly and to large audiences

• to write and publish scientific articles in international journals and conferences in English

• to develop critical thinking, with the ultimate goal of contributing to the local and global development and prosperity

3. SYLLABUS

The Final Project Thesis is an extensive work – analytical, synthetic, experimental or related to a specific application – that is prepared by senior students in order to obtain the title of Graduate Mechanical Engineer. The Thesis has a fairly complex and multi-level scientific-technical subject that is generally related to the direction of studies chosen by the student.

It constitutes a concentrated culmination of the studies and its purpose is to give the student the opportunity to complete their knowledge and present their abilities in the elaboration of an independent topic of the Science of Engineering.

The subject of the work is determined either by a professor or upon the proposal of the student and in collaboration with the supervising professor.

The Final Project Thesis consists of a comprehensive review of literature that can be followed by either:

• modeling

• design

• fabrication

• characterization

of advanced engineering topics in one of the three sectors in the department:

• Energy

• Robotics

• Manufacturing

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY Face-to-face, Distance learning, etc.	In Person
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY Use of ICT in teaching, laboratory education, communication with students	
TEACHING METHODS The manner and methods of teaching are described in detail.	**Activity** | **Semester workload** **Course total** |
STUDENT PERFORMANCE EVALUATION Description of the evaluation procedure	

5. ATTACHED BIBLIOGRAPHY