# uc3m Universidad Carlos III de Madrid

### **Bachelor Thesis**

Academic Year: (2019 / 2020) Review date: 04-05-2020

Department assigned to the subject: Electrical Engineering Department, Mechanical Engineering Department

Coordinating teacher: TSIPAS , SOPHIA ALEXANDRA

Type: Bachelor Thesis ECTS Credits: 12.0

Year: 4 Semester:

# REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

A high degree of progress in the Curriculum.

Additionally, to enroll the Bachelor's Degree Final Project, it is necessary to meet 2 requirements:

- -Have enrolled all subjects pending to pass
- -Have a Project assigned in TFEPE

#### **OBJECTIVES**

By the end of this subject, students will be able to have:

- 1. a systematic understanding of the key aspects and concepts of their branch of engineering;
- 2. the ability to apply their knowledge and understanding to identify, formulate and solve engineering problems using established methods:
- 3. an understanding of design methodologies, and an ability to use them.
- 4. the ability to conduct searches of literature, and to use databases and other sources of information;
- 5. the ability to select and use appropriate equipment, tools and methods;
- 6. an understanding of applicable techniques and methods, and of their limitations;
- 7. an awareness of the non-technical implications of engineering practice.
- 8. use diverse methods to communicate effectively with the engineering community and with society at large;
- 9. demonstrate awareness of the health, safety and legal issues and responsibilities of engineering practice, the impact of engineering solutions in a societal and environmental context, and commit to professional ethics, responsibilities and norms of engineering practice;
- 10. recognise the need for, and have the ability to engage in independent, life-long learning.

## **DESCRIPTION OF CONTENTS: PROGRAMME**

Original exercise to be carried out individually and presented and defended before a university tribunal, consisting of a project in the field of specific Industrial Engineering technologies of a professional nature in which the competences acquired in the teaching are synthesized and integrated.

## LEARNING ACTIVITIES AND METHODOLOGY

The student will develop the skills acquired throughout their studies and apply the knowledge learned to the realization of a project within the scope of this Degree that will end with a written report. It will reflect the analysis, resolution of issues and conclusions that correspond in the scope of the project. Assumes 299 hours with 0% face-to-face

The tutor of the Final Degree Project will assist and guide the student in all those aspects necessary to carry out a good final project and express it clearly and professionally in the written report. The tutorials

may be face-to-face and also be done through electronic means.

#### ASSESSMENT SYSTEM

It will be done through an oral test of Defense of the End of Degree Work before a court chosen for the purpose that will assess the student's work, the results obtained and their exposure according to a rubric or evaluation matrix. Previously, the student must prepare a report of the work done that will be delivered to the members of the court in due time. The valuation percentage will be 100%

The student will make the defense and presentation of their project before a court clearly arguing the issues that apply and solving the problems that may have arisen in the project. 1 hour / 100% face-to-face.

The work itself will be taken into account (mainly assessed by the tutor by issuing a "tutor report" that will be part of the final evaluation of the TFG), as well as the preparation of the report, and the public presentation and defense before A labor court.

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