# uc3m Universidad Carlos III de Madrid

## **Bachelor Thesis**

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

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: TSIPAS, SOPHIA ALEXANDRA

Type: Bachelor Thesis ECTS Credits: 12.0

Year : XX Semester :

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Have completed basic credits and the compulsory engineering module credits.

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 presented and defended in front of an academic committee. The work will be an integral project in the field of the Bachelor degree that will be professionally oriented where the different competences acquired during the degree courses should be demonstrated or an innovative work developing an idea, prototype or a model of systems or equipments within the field developed during the Bachelor degree.

The tutor for the Bachelor¿s Degree Final Project helps and guides the student in all aspects necessary to carry out a solid final Project, and to write a corresponding clear and professional report. The tutoring sessions can be on-site or on line.

### LEARNING ACTIVITIES AND METHODOLOGY

Students apply competences and knowledge acquired during their studies in a Project from an area of the degree program, concluding with a written report. The foregoing reflects the corresponding project's analysis, resolution of issues and conclusions. The Project represents 299 hours/0% on-site.

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## ASSESSMENT SYSTEM

This is done through an oral Bachelor's Degree Final Project defense before a tribunal selected to assess the student's work, the learning outcomes, and the presentation of the same, according to an evaluation model. Prior to the defense, the student must have duly presented their written report to the tribunal members. Represents 100% of the evaluation

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The student defends their Project before a tribunal, clearly presenting the corresponding points with resolution of any problems arising in the Project. 1 hour/100% on-site