# uc3m Universidad Carlos III de Madrid

## **Bachelor Thesis**

Academic Year: (2019 / 2020) Review date: 05/05/2020 11:32:46

Department assigned to the subject: Electrical Engineering Department

Coordinating teacher: CONTRERAS LALLANA, PEDRO

Type: Bachelor Thesis ECTS Credits: 12.0

Year : XX Semester :

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

Those required by the University in relation to the conditions to start the Bachelor Thesis, this includes to be enrolled in all pending issues to overcome unless the Humanities to recognize credit, which will be recognized in this academic year.

#### **OBJECTIVES**

The aim of this course is for students to acquire knowledge and skills in the global aspects of Electrical Engineering, using technical and professional aspects. The student will make an individual project of a professional nature to synthesize and integrate the skills acquired in his/her engineering studies. The work must be defended in front of a board of examiners.

# **LEARNING OUTCOMES:**

- 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;
- an understanding of design methodologies, and an ability to use them.
- 4. the ability to conduct searches of literature, and to use data bases 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**

- Presentation of work items
- Collection and analysis of information for the Bachelor Thesis
- Development of Bachelor Thesis
- Development of report and public defense of Bachelor Thesis

## LEARNING ACTIVITIES AND METHODOLOGY

- Tutorials and group work (1,5 ECTS).
- Personal work (10.5 ECTS) oriented to the development of the Barchelor Thesis.

#### ASSESSMENT SYSTEM

Formative evaluation will be conducted through committees that will evaluate the work of the Bachelor Thesis of each student individually. It will take into account the students' work in the Bachelor Thesis and the his/her defense in the final marks. The global mark will take into account both aspects. A rubric (evaluation matrix) will be used to evaluate the different aspects of the bachelor thesis. This formative evaluation will have constitute 100% of the students final grade.

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