

## Bachelor Thesis

Academic Year: ( 2019 / 2020 )

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Department assigned to the subject: Signal and Communications Theory Department

Coordinating teacher: LLORENTE ROMANO, SERGIO

Type: Bachelor Thesis ECTS Credits : 12.0

Year : 4 Semester :

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

All the courses of the degree.

## OBJECTIVES

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

1. have a systematic understanding of the key aspects and concepts of their branch of engineering
2. apply their knowledge and understanding to identify, formulate and solve engineering problems using established methods
3. have an understanding of the design methodologies and use them
4. perform bibliographic research, and use data bases and other sources of information
5. select and use appropriate equipment, tools and methods
6. have an understanding of applicable techniques and methods, and their limitations
7. have an awareness of the non-technical implications of the engineering practice
8. use diverse methods to effectively communicate 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. recognize the need for lifelong learning and develop it by oneself

## DESCRIPTION OF CONTENTS: PROGRAMME

Original exercise to be presented and defended in front of an academic committee. The work will be a professionally oriented integral project in the specialty field, where the different competencies acquired in the degree can be demonstrated; or an innovative work developing an idea, prototype or model of an equipment or system in one of the fields of the specialty.

## LEARNING ACTIVITIES AND METHODOLOGY

The learning activities and methodology for the End of Degree Work are specified in the corresponding university regulation: <http://www.uc3m.es/ss/Satellite/SecretariaVirtual/es/TextoMixta/1371210936260/>

## ASSESSMENT SYSTEM

The professor in charge of tutoring the student will perform a continuous assessment of student work.

The final evaluation will be done by an academic committee, chosen for this purpose, after the oral presentation and defense of the work by the student. This academic committee will assess the work of

the student, the results obtained, the presentation of them, and the assessment made by the tutor. Previously, the student must write a report that will be delivered to members of the committee sufficiently in advance.

## REPORT

The report must be written in English or Spanish. An extension between 50 pages and 100 pages is recommended (interline space 1.15-1.25, font size 11-12 points).

A possible structure would be:

1. Introduction: Motivation and goals.
2. Problem statement: state of the art, requirements, restrictions, regulatory framework,...
3. Materials, methods and solution design;
4. Results, validation, discussion,...
5. Project scheduling and budget.
6. Conclusions.
7. References.

Additional information may be included as annexes. This structure is merely indicative. It must be the student, with the advice of his tutor, who determines the best way to present the work.

You can find more information about how to write the report and style guidelines in the following link:  
<http://uc3m.libguides.com/TFG/>

The report can be written in Spanish or English. However, all students have to demonstrate their skills to write in English, so if the report is written in Spanish, an extended summary (5-10 pages) written in English must be included in the report as an annex.

## EVALUATION CRITERIA

In order to evaluate the work, the committee will take into account the work itself, the quality of the report, the presentation and defense before the committee, and the tutor assessment. The evaluation criteria will be set by the evaluation matrix that has been defined for that purpose.

Students considering the TFG as part of the mandatory English ECTS, must present and write the complete document in English.

The University uses the Turnitin Feedback Studio program within the Aula Global for the delivery of student work. This program compares the originality of the work delivered by each student with millions of electronic resources and detects those parts of the text that are copied and pasted. If the student has correctly made the appointment and the bibliographic reference of the documents he uses as a source, Turnitin will not mark it as plagiarism.

## BASIC BIBLIOGRAPHY

- Antonio Sánchez Asín Trabajos fin de grado y de postgrado: guía práctica para su elaboración, Aljibe, 2016
- Iria Da Cunha El trabajo de fin de grado y de máster: redacción, defensa y publicación, Editorial UOC, S.L., 2016
- Juana M<sup>a</sup> González García Cómo escribir un trabajo de fin de grado, Síntesis, 2014