

Master's Degree Dissertation

Code: 43794
ECTS Credits: 12

Degree	Type	Year	Semester
4313797 Telecommunications Engineering	OB	2	1

Contact

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Use of Languages

Principal working language: english (eng)

Prerequisites

As indicated in order CIN / 355/2009, of February 9 (BOE of February 20), the master's thesis (TFM) includes the realization, presentation and defense, once all the credits of the plan of studies have been obtained, of an original exercise carried out individually before a university tribunal, consisting of an integral project of Telecommunication Engineering of a professional nature in which the competences acquired in the teachings are synthesized.

Objectives and Contextualisation

1. Demonstrate the achievement of the objectives set at the beginning of the project.
2. Demonstrate the ability to develop autonomous work.
3. Demonstrate the ability to use knowledge acquired in solving the posed problem.
4. To solve the problem posed (having a degree of difficulty suitable to the master's degree) and to develop the work correctly.
5. Demonstrate technical quality at work.
6. Demonstrate the ability to write the final report document. This report must include at least the summary (two sheets) written in English.
7. Demonstrate the ability to publicly present in a summarized and clear manner the results achieved.

Competences

- Capacity for critical reasoning and thought as means for originality in the generation, development and/or application of ideas in a research or professional context.
- Demonstrate an entrepreneurial, creative and innovative spirit
- Maintain proactive and dynamic activity for continual improvement
- Production, presentation and defence of an original, individual exercise before a university panel, once all the credits in the syllabus have been obtained. This should consist of a professional style integrated telecommunications engineering project in which the competencies acquired on the course are synthesised.
- Respect and promote human rights, democratic principles, principles of sex equality, solidarity, universal accessibility and design for all, prevention of labour risks, environmental protection and promotion of a culture of peace
- Students should be capable of integrating knowledge and facing the complexity of making judgements using information that may be incomplete or limited, including reflections on the social and ethical responsibilities linked to that knowledge and those judgements

- Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
- Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously

Learning Outcomes

1. Capacity for critical reasoning and thought as means for originality in the generation, development and/or application of ideas in a research or professional context.
2. Demonstrate an entrepreneurial, creative and innovative spirit
3. Direct innovation and research projects and work teams in the area of telecommunications engineering.
4. Maintain proactive and dynamic activity for continual improvement
5. Plan and carry out innovation and research projects with content specific to the subject areas to be covered by students
6. Respect and promote human rights, democratic principles, principles of sex equality, solidarity, universal accessibility and design for all, prevention of labour risks, environmental protection and promotion of a culture of peace
7. Students should be capable of integrating knowledge and facing the complexity of making judgements using information that may be incomplete or limited, including reflections on the social and ethical responsibilities linked to that knowledge and those judgements
8. Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
9. Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously

Content

The TFM is an individual academic work, consisting of 3 well differentiated parts, which are: the realization of the project, the writing of the technical report, and the public presentation and defense of the project, which will take place at the end of the first semester of the second.

Methodology

Each student will be assigned a tutor, from the list of UAB academics participating in the Master, who will guide the student in a personalized manner in the completion of the TFM. The academic selects and provides guidance around the objectives of the TFM, supervises and resolves doubts. A series of activities will be carried out (deliveries and meetings) that allow to control the follow-up of the work carried out by the student. Students should contact their tutor to arrange the meetings they will hold throughout the course.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Supervised			
Supervised work by thesis advisor.	99	3.96	1, 2, 3, 5
Type: Autonomous			
Autonomous work by student.	170	6.8	4, 7, 8, 9, 6

Assessment

It will be an expert panel which, autonomously, must judge the quality of the work carried out, according to the current regulations developed by the Center and the University. The expert panel will consist of three doctors pertaining to the areas of knowledge that impart teaching in the master's. The final grade assigned to the work will be based, at least, on the following criteria:

- 1.- Achievement of the objectives set at the start of the project.
- 2.- Ability to develop autonomous work.
- 3.- Ability to use the knowledge acquired in solving the problem raised.
- 4.- Degree of difficulty of the problem resolved or of the work developed.
- 5.- Technical quality of the work.
- 6.- Ability to write the final report document. This report should include at least the summary (two sheets) written in English.
- 7.- Ability to publicly summarize and clearly summarize the results achieved. The presentation of the master's degree project must include at least the introduction and the conclusions in English.

The memory of the TFM will be sent by email to the coordinator of the TFM subject and a copy will be delivered in paper to each one of the professors who are part of the evaluation board. The members of the court must receive the copy in paper at least one week before the project's reading.

The memory will have an approximate length of between 60 and 80 pages in the Times New Roman 12 format, footnotes Times New Roman 10 and line spacing 1.5. The memory must include the following sections:

- Summary: from a maximum of 200 words written in Spanish, Catalan and English.
- Index: It must contain the sections and sub-paragraphs that appear in the text of the work and the page number (it is important that the sections listed in the index be the same as those that appear later in the text).
- Introduction: it must contain the reasons for developing this work and how it will be developed.
- Conclusions: they must be related to the object of the work and provide some relevant information to it.
- Bibliography: it is appropriate to systematise the bibliography by type of documents, subjects or others that allow the reader to identify the texts and other materials analyzed during the work.
- Annexes: if deemed convenient (for example, to facilitate the understanding of the work) will be added at the end of the text.

The qualification system in force at all times will be applied; At the moment, the one that appears in RD 1125/2003, article 5o. The results obtained by the student in each of the subjects of the syllabus will be graded according to the following numerical scale from 0 to 10, with the expression of a decimal, to which their corresponding qualitative qualification can be added: 0 - 4, 9: Suspense (SS), 5.0 - 6.9: Approved 50 (AP), 7.0 - 8.9: Remarkable (NT), 9.0 - 10: Outstanding (SB). The mention of Honor Matriculation may be awarded to students who have obtained a score of 9.0 or more. Your number may not exceed 5% of the students enrolled in a subject in the corresponding academic year, unless the number of students enrolled is less than 20, in which case a single Honor Matriculation can be granted.

Once the TFM has been evaluated, the electronic version of the memory will be published in the Digital Database of the UAB's Library of Sciences and Technology (<http://blogs.uab.cat/bctotestudiants/treballs/>).

The final grade will be obtained from:

- 40% Master thesis.
- 30% final report (provided by the thesis supervisor) of the activities carried out by the student.

- 30% oral presentation.

Both reports will be delivered to the Master's coordinator two weeks in advance to the oral presentation.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Final report by thesis advisor.	30%	0	0	4, 7, 8, 6
Master thesis	40%	30	1.2	1, 2, 3, 5
Oral presentation and thesis defense	30%	1	0.04	9

Bibliography

Specific bibliography will depend on individual projects and will be suggested by the academic in charge.