



## 1. General information

Course: FINAL YEAR DISERTATION

Type: PROJECT

Degree: 2349 - MASTER DEGREE PROGRAMME IN TELECOMMUNICATION  
ENGINEERING

Center: 308 - SCHOOL POLYTECHNIC OF CUENCA

Year: 2

Main language: Spanish

Use of additional  
languages:

Web site:

Code: 310913

ECTS credits: 6

Academic year: 2022-23

Group(s): 30

Duration: SD

Second language:

English Friendly: Y

Bilingual: N

Lecturer: JOSE ANTONIO BALLESTEROS GARRIDO - Group(s): 30

Building/Office	Department	Phone number	Email	Office hours
E. Politécnica Cuenca (2.16)	INGENIERÍA ELÉCTRICA, ELECTRÓNICA, AUTOMÁTICA Y COMUNICACIONES	926053863	josea.ballesteros@uclm.es	Office hours will be published and the beginning of the course

Lecturer: ROBERTO ZANGRONIZ CANTABRANA - Group(s): 30

Building/Office	Department	Phone number	Email	Office hours
E. Politécnica Cuenca (0.03)	INGENIERÍA ELÉCTRICA, ELECTRÓNICA, AUTOMÁTICA Y COMUNICACIONES	926054061	roberto.zangroniz@uclm.es	Office hours will be posted on the bulletin board

## 2. Pre-Requisites

In order to present and defend the Final Year Disertation, students must have passed the rest of the ECTS required for this master degree programme.

## 3. Justification in the curriculum, relation to other subjects and to the profession

R.D. 1393/2007, of October 29, 2007 (B.O.E. of October 30, 2007), establishes in Chapter IV, dedicated to the official master degree programmes, that "these programmes will conclude with the preparation and defense of a Final Year Disertation, which will have between 6 and 30 credits", without including any other provision on the process of preparation and evaluation which, consequently and in the exercise of its autonomy, must be regulated by each University.

Therefore, the Final Year Disertation is a subject included in R.D. 1393/2007, which establishes the organization of official university studies, modified by R.D. 861/2010, of July 2, 2010 (B.O.E. of July 3, 2010) and defined in the O.M. CIN/355/2009, of February 9, 2009 (B.O.E. of February 20, 2009), which establishes the requirements for the verification of official university degrees that enable the exercise of the profession of Telecommunications Engineer, which includes the "Completion, presentation and defense, once all the credits of the programme have been obtained, of an original exercise carried out individually before a university tribunal, consisting of a comprehensive Telecommunications Engineering project of a professional nature in which the competences acquired in teachings are synthesized".

The Final Year Disertation is part of the 3rd semester of the master degree and its purpose is to put into practice the knowledge acquired throughout teachings, with the aim that the student reaches high levels of improvement in the different disciplines of the teachings. This work involves the realization by the student, and individually, of a project, report or study under the supervision of one or more tutors, which integrate and develop the contents acquired within the master. The Final Year Disertation must be defended and evaluated once there is reliable proof that the student has passed all the remaining subjects of the syllabus and has, therefore, all the credits required to obtain the master degree programme, except those corresponding to the Final Year Disertation itself.

## 4. Degree competences achieved in this course

## Course competences

Code	Description
E18	Once the student has gained sufficient credits from the course they must write, present and defend an original thesis before a university jury consisting of a comprehensive Telecommunications Engineering project of a professional nature in which they outline the skills they have acquired from the course.
G01	The ability to conceptualise, calculate and design products, processes and facilities in all fields of Telecommunications Engineering.
G02	The ability to lead the creation and installation of telecommunication systems while complying with current regulations ensuring quality service.
G03	The ability to lead, organise, and supervise multidisciplinary teams.
G04	The ability to perform mathematical modelling, calculations and simulations in technology centres and engineering companies, particularly in tasks involving research, development and innovation in all areas related to Telecommunications Engineering and related multidisciplinary fields.
G05	The ability to draft, strategically plan, lead, coordinate, technically manage and financially manage projects in all fields of Telecommunications Engineering while following quality and environmental criteria.
G06	The ability for the overall management and technical management of research, development and innovation projects in companies and technology centres.
G07	The ability to launch, lead and manage the manufacturing processes of electronic and telecommunications equipment, guaranteeing

G08	the safety of people and assets, the final quality of products, and their standardisation. The ability to apply acquired knowledge and solve problems in new or unknown settings within wide and multidisciplinary environments while being capable of integrating knowledge.
G09	The ability to understand the ethical responsibility and professional ethics of the activities related to the role of Telecommunications Engineer.
G10	The ability to apply the principles of economics, Human Resource Management and project management, as well as telecommunications legislation, regulations and standards.
G11	The ability to know how to communicate their conclusions and the latest supporting knowledge or data to both specialised and non-specialised audiences clearly and free from ambiguity.
G12	The ability to have the learning skills which allow them to continue studying in a largely self-directed or autonomous way.
G13	The knowledge, understanding, and ability to apply the legislation necessary to carry out the role of Telecommunications Engineer.
G14	The ability to have knowledge and understanding which provides a basis or opportunity to be original in the development and/or application of ideas, often within a research context.
G15	The ability to integrate knowledge and face the complexities of making assessments based on information which, whether incomplete or limited, includes reflections on the social and ethical responsibilities in the application of their knowledge and judgements.
G16	Leadership for the treatment of conflicts and abilities in negotiation and personal relationships, as well as to recognize and respect diversity and multiculturalism.

## 5. Objectives or Learning Outcomes

### Course learning outcomes

#### Description

Individually completion of an original exercise and its presentation and defense facing an university jury, consisting of a Telecommunications Engineering project of professional nature in which the skills acquired in the education were synthesized and integrated.

## 6. Units / Contents

No units added

### ADDITIONAL COMMENTS, REMARKS

This subject does not have its own theoretical contents

## 7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Writing of reports or projects [OFF-SITE]	Guided or supervised work	E18 G01 G02 G03 G04 G05 G06 G07 G08 G09 G10 G11 G12 G13 G14 G15 G16	4.5	112.5	Y	Y	Completion of the Final Year Disertation
Other off-site activity [OFF-SITE]	Guided or supervised work	E18 G01 G02 G03 G04 G05 G06 G07 G08 G09 G10 G11 G12 G13 G14 G15 G16	1	25	Y	Y	Preparation of technical documentation
Individual tutoring sessions [ON-SITE]		E18 G01 G02 G03 G04 G05 G06 G07 G08 G09 G10 G11 G12 G13 G14 G15 G16	0.36	9	N	-	Individual face-to-face tutoring
Other off-site activity [OFF-SITE]		E18 G01 G02 G03 G04 G05 G06 G07 G08 G09 G10 G11 G12 G13 G14 G15 G16	0.09	2.25	N	-	Online individual face-to-face tutoring
Project or Topic Presentations [ON-SITE]	Individual presentation of projects and reports	E18 G01 G02 G03 G04 G05 G06 G07 G08 G09 G10 G11 G12 G13 G14 G15 G16	0.05	1.25	Y	Y	Individual presentation of the Final Year Disertation
<b>Total:</b>			<b>6</b>	<b>150</b>			
<b>Total credits of in-class work: 0.41</b>			<b>Total class time hours: 10.25</b>				
<b>Total credits of out of class work: 5.59</b>			<b>Total hours of out of class work: 139.75</b>				

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

## 8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Other methods of assessment	30.00%	30.00%	Evaluation report by the Final Year Disertation tutor
Practicum and practical activities reports assessment	55.00%	55.00%	The technical quality of the work will represent 40% of the grade and the remaining 15% will be assigned to the written document
Oral presentations assessment	15.00%	15.00%	Presentation and defense of the work
<b>Total:</b>	<b>100.00%</b>	<b>100.00%</b>	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of

the competences).

**Evaluation criteria for the final exam:**

**Continuous assessment:**

More information on the presentation and evaluation of the Final Year Dissertation can be found in the "Normativa sobre la elaboración y defensa del trabajo fin de máster" available on the website of the Escuela Politécnica de Cuenca

**Non-continuous evaluation:**

More information on the presentation and evaluation of the Final Year Dissertation can be found in the "Normativa sobre la elaboración y defensa del trabajo fin de máster" available on the website of the Escuela Politécnica de Cuenca

**Specifications for the resit/retake exam:**

More information on the presentation and evaluation of the Final Year Dissertation can be found in the "Normativa sobre la elaboración y defensa del trabajo fin de máster" available on the website of the Escuela Politécnica de Cuenca

**Specifications for the second resit / retake exam:**

More information on the presentation and evaluation of the Final Year Dissertation can be found in the "Normativa sobre la elaboración y defensa del trabajo fin de máster" available on the website of the Escuela Politécnica de Cuenca

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	
Hours	hours

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
	Normativa sobre la elaboración y defensa del trabajo fin de máster de la Escuela Politécnica de Cuenca <a href="https://politecnicacuenca.uclm.es/-/media/Files/C01-Centros/epc/MUIT/Doc-Acad/trabajomaster/Normativa-TFM-MUIT-2017.ashx">https://politecnicacuenca.uclm.es/-/media/Files/C01-Centros/epc/MUIT/Doc-Acad/trabajomaster/Normativa-TFM-MUIT-2017.ashx</a>					