

## Course guide

### 320125 - PE - Engineering Project Design

**Last modified:** 19/04/2023

**Unit in charge:** Terrassa School of Industrial, Aerospace and Audiovisual Engineering  
**Teaching unit:** 710 - EEL - Department of Electronic Engineering.

**Degree:** BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Compulsory subject).

**Academic year:** 2023    **ECTS Credits:** 6.0    **Languages:** Catalan, Spanish

#### LECTURER

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**Coordinating lecturer:** Raúl Fernández

**Others:** Primer quadrimestre:  
JUAN JOSE ALINS DELGADO - Grup: 11  
JAVIER GAGO BARRIO - Grup: 11  
MANUEL LOPEZ PALMA - Grup: 11, Grup: 12

Segon quadrimestre:  
MONTSERRAT CORBALAN FUERTES - Grup: REAVA

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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##### Specific:

CE06-ESAUD. Ability to autonomously learn new knowledge and techniques suitable for the conception, development, or exploitation of telecommunications systems and services. (Common module for the telecommunications branch)

CE08-ESAUD. Ability to use computer tools to search for bibliographic resources or information related to telecommunications and electronics. (Common module for the telecommunications branch)

CE11-ESAUD. Ability to conceive, deploy, organize and manage networks, systems, services, and telecommunications infrastructures in residential (home, city, and digital communities), business or institutional contexts, taking responsibility for their implementation and continuous improvement, as well as knowing their economic and social impact. (Common module for the telecommunications branch)

CE20-ESAUD. Knowledge of regulations and telecommunications regulation at the national, European, and international levels. (Common Module in the Telecommunications Branch)

##### Generical:

CG01-ESAUD. Ability to write, develop, and sign projects in the field of telecommunications engineering that aim at the conception, development, or exploitation of telecommunication and electronic networks, services, and applications.

CG02-ESAUD. Knowledge, understanding, and ability to apply the necessary legislation during the development of the profession of Technical Telecommunications Engineer, as well as ease in handling specifications, regulations, and mandatory compliance standards.

CG04-ESAUD. Ability to solve problems with initiative, decision-making, creativity, and to communicate and transmit knowledge, skills, and abilities, understanding the ethical and professional responsibility of the Technical Telecommunications Engineer's activity.

CG05-ESAUD. Knowledge for the realization of measurements, calculations, valuations, appraisals, expert opinions, studies, reports, task planning, and other similar work in their specific field of telecommunications.

CG06-ESAUD. Ease in handling specifications, regulations, and mandatory compliance standards.

##### Transversal:

CT01 N3. Entrepreneurship and innovation - Level 3. Using knowledge and strategic skills to set up and manage projects. Applying systemic solutions to complex problems. Devising and managing innovation in organizations.

CT02 N3. Sustainability and social commitment - Level 3. Taking social, economic and environmental factors into account in the application of solutions. Undertaking projects that tie in with human development and sustainability.

## TEACHING METHODOLOGY

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## LEARNING OBJECTIVES OF THE SUBJECT

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## STUDY LOAD

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Type	Hours	Percentage
Self study	90,0	60.00
Hours large group	30,0	20.00
Hours small group	30,0	20.00

**Total learning time:** 150 h

## CONTENTS

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### TEMA 1: Legislation, regulations and policy areas of Telecommunications

#### Description:

- Regulators on Telecommunications
- Professional Associations
- Professionals Attributions.
- Social Responsibility
- Individual Responsibility.
- Code of ethics.

#### Specific objectives:

To know the main telecommunicatoin regulatory and professional and social attributions.

#### Related activities:

- Class theoretical explanation with exercises.
- Activity 1.
- Activity 2.

#### Full-or-part-time: 25h

Theory classes: 10h

Self study : 15h

## TEMA 2: Preparation and presentation of technical documentation.

### Description:

- Technical documentation.
- The Scientific article.
- The technical project.
- Oral presentations.

### Specific objectives:

Writing technical documentation

### Related activities:

- Theoretical explanation with exercises.
- Activity 1.

### Full-or-part-time: 25h

Theory classes: 10h

Self study : 15h

## TEMA 3: Project Management for Telecommunications

### Description:

- Introduction.
- Project definition.
- Budget and Schedule.
- Project implementation.
- Project control.
- Sustainability
- Innovation

### Specific objectives:

Project Management for Telecommunications

### Related activities:

- Class exercises with theoretical explanations.
- Activity 1.
- Activity 2.

### Full-or-part-time: 25h

Theory classes: 10h

Self study : 15h

#### TEMA 4: Common Telecommunications Infrastructure.

**Description:**

- Development of a Common Telecommunications Infrastructure project.
- Defining the scope of the project to make
- Editing documentation to be submitted

**Specific objectives:**

ICT Development Project

**Related activities:**

- Class exercises with theoretical explanations.
- Activity 1.
- Activity 2.

**Full-or-part-time:** 75h

Laboratory classes: 30h

Self study : 45h

## ACTIVITIES

#### (ENG) ACTIVITAT 1: ELABORACIÓ D'UN PROJECTE DE TELECOMUNICACIONS

**Full-or-part-time:** 75h

Laboratory classes: 30h

Self study: 45h

#### (ENG) ACTIVITAT 2: PROVA FINAL

**Full-or-part-time:** 35h

Theory classes: 14h

Practical classes: 21h

## GRADING SYSTEM

- Projects - 50%
- Continuous assessment (practices, deliverables...) - 50%

The results with average mark lower than 5 can redirect by additional work submitted 48 hours advance of the assessment date. The maximum mark of this recovery work is 5.

For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.

If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

## BIBLIOGRAPHY

**Basic:**

- Cos Castillo, Manuel de. Teoría general del proyecto. Madrid: Síntesis, 1995-1997. ISBN 8477383324; 8477384525.