

**COURSE DATA****DATA SUBJECT****Code:** 34817**Name:** Project management**Cycle:** Undergraduate Studies**ECTS Credits:** 6**Academic year:** 2025-26**STUDY (S)**

Degree	Center	Acad. year	Period
1402 - Degree in Telecommunications Electronic Engineering	Escola Tècnica Superior d'Enginyeria	3	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1402 - Degree in Telecommunications Electronic Engineering	Project management	COMPULSORY

COORDINATION

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SUMMARY

The course Project Management is part of the obligatory subjects of the third year of the Degree in Electronic Engineering in Telecommunications, and its overall objective is that the students to obtain the capability to adequately apply all the knowledge previously acquired in the elaboration, development and evaluation of projects and reports. For this purpose, the application of the appropriate methodology and the basic principles of economy, management, quality, and business organization, as well as the legislation, regulation and standardization of the Telecommunications Engineering field will be emphasized.

This is a four-monthly course that is taught during the second four-month period of the degree. The study plan consists of a total of 6 ECTS credits. The course is focused on the development of practical skills that the engineer will apply in his professional career as a manager or member of a project team. Such skills include the application of technical knowledge in real cases, division of tasks, or management of human and material resources. The Common Telecommunications Infrastructures, as well as other types of projects related to the degree, will be particularly stressed.

The course has a theoretical-practical character with several practices that will serve to establish the theoretical knowledge, and exercises in class in which the students will develop their creativity and their abilities related to the management and communication. In this way, students are expected to improve their



ability to work in a team, and their oral and in writing skills.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

The course, given its general nature, does not need a specific background, although it is recommended to have completed the courses "Engineering, University and Business and Society," in order to have an initial perception of the world of the Company. On the contrary, it does provide very direct connections in areas in which the technical knowledge is embodied in a project.

COMPETENCES / LEARNING OUTCOMES

1402 - Degree in Telecommunications Electronic Engineering

G1 - Ability to write, develop and sign projects in the field of Telecommunication Engineering aimed - according to the knowledge acquired in section 5 of CIN/352/2009 regulation - at the conception and the development or the exploitation of networks, services and applications of telecommunications and electronics.

G6 - Ability in the handling of specifications, regulations and norms of compulsory compliance.

G8 - Knowledge and application of basic elements of economics and human resource management, project organization and planning, and legislation, regulations and norms in telecommunications.

G9 - Ability to work in a multidisciplinary environment and in a multilingual group and to communicate, in writing and orally, knowledge, procedures, results and ideas related to telecommunications and electronics.

R2 - Ability to use communication and computer applications (offimatics, databases, advanced calculation, project management, visualization, etc.) to support the development and exploitation of telecommunications and electronics networks, services and applications.

DESCRIPTION OF CONTENTS

1. Introduction

- 1.1.- The concept of an industrial project
- 1.2.- The context of a Telecommunications project
- 1.3.- Characterization of external projects
- 1.4.- Characterization of internal projects
- 1.5.- The Quality Plan for the management of an industrial project



2. The preliminary project

- 2.1.- The management of an industrial project
- 2.2.- The specifications of an industrial project
- 2.3.- The basic techniques of project planning
- 2.4.- Advanced project planning techniques
- 2.5.- Feasibility and risk studies of a project
- 2.6.- The economic evaluation of a project
- 2.7. - Decision theory

3. The project

- 3.1.- The execution of industrial projects
- 3.2.- The validation of industrial projects
- 3.3.- Project control
- 3.4.- The closure of the project

4. Professional activity

- 4.1.- Employment as an employee
- 4.2.- Self-employment
- 4.3.- The academic career

5. Practical Example: Common Telecommunications Infrastructures

- 5.1. Introduction to ICTs
- 5.2. Magnitudes and units
- 5.3. ICT Design
- 5.4. Presentation of the report

6. Laboratory

The objective of the laboratory classes is that the student learns about computer programs for the planning, management and control of projects. The objective of the laboratory is to apply the concepts given to theory in different practical cases using specific tools for project management (MSProject or Gantt Project) or office automation (Word, Excel, Power Point) The laboratory is divided into the following practices (which can last more than one session):

- 1. Gantt Planning
- 2. Case Study of project implementation in industry
- 3. Design and verification of a Common Telecommunications Infrastructure.
- 4. Preparation of CVs and professional profiles.

WORKLOAD

PRESENCIAL ACTIVITIES



Activity	Hours
Theory	30,00
Laboratory	20,00
Classroom practices	10,00
Total hours	60,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	25,00
Independent study and work	0,00
Preparation of lessons	25,00
Preparation for assessment activities	25,00
Resolution of case studies	15,00
Total hours	90,00

TEACHING METHODOLOGY

The course is structured around theory classes, practical classes, workshop seminars and practice classes.

Theoretical activities will be exposed through the theory classes (T). Here, the lecture class model will be used. The professor will present and/or explain the contents of each issue impacting on key aspects for understanding.

The part of the **seminar-workshop (S)** will consist of groups of 3 to 5 students developing a draft project whose subject will be freely chosen by them. The students will have to organize themselves to analyze the state of art of the chosen topic and to carry out the different tasks involved in the draft project (management, sales strategy, necessary resources, budget...). At the end of the course the group will present a report with all the work carried out and will make a presentation to the rest of the class. Following the presentation there will be a round of questions and discussion with the teacher and other the students. At the end of all presentations the students will choose the best draft and will explain the reasons for their choice.

For the **laboratory sessions (L)**, the different activities (introducing the practice, development, experimentation, and analysis) will be appropriately scheduled. Practice scripts will be provided in advance, and students will carry out the practice under the supervision of the professor.

EVALUATION

First evaluation:

The knowledge acquired by the student can be evaluated in two ways: through the work carried out throughout the course (continuous assessment system) or through a final exam (single assessment system).

Continuous assessment system



Under this system, students who regularly participate in formative activities will be evaluated, taking into account class attendance, the development of the preliminary project, and laboratory activities.

To be eligible for this assessment, it will be necessary to attend a minimum of 80% of the theory classes. Attendance at laboratory classes, seminar-workshops, and the presentation of each of the preliminary projects will be mandatory.

The grade will be calculated as follows:

- The preliminary project will account for 75% of the final grade, of which 50% corresponds to the completed report and 25% to the in-class presentation.
- The laboratory will account for 25% of the final grade. This grade will be obtained as the weighted average of each of the practical exercises.

It will be necessary to obtain a minimum of 4 in each of the parts to be able to average them.

Single assessment system

Students who have failed the continuous assessment or have not attended class regularly may take a final exam on the date established in the academic calendar.

This exam will consist of:

- Theory exam: it will account for 75% of the final grade and will consist of theoretical-practical questions from the content
- presented in the theory classes.
- Laboratory practicals: students who have not attended the laboratory regularly must present each of the practicals to the corresponding professors. The weight of these practicals will be 25% of the final grade.

It will be necessary to obtain a minimum of 4 in each of the parts to be able to average them.

Second evaluation:

In the second evaluation, students will have the option of a single assessment, which will consist of a theory exam with a weight of 75% of the grade, and a laboratory exam, which will have a weight of 25%.

It will be necessary to obtain a minimum of 4 in each of the parts to be able to average them.

Note:

Copying or plagiarism of any activity that is part of the evaluation will result in the impossibility of passing the course, and the student will then be subject to the appropriate disciplinary procedures indicated in the PROTOCOL FOR ACTION IN THE FACE OF FRAUDULENT PRACTICES AT THE UNIVERSITY OF VALÈNCIA



(ACGUV 123/2020).

REFERENCES

- Referencia b1: Pereña, J. "Dirección y Gestión de Proyectos". Ed. Díaz de Santos (1991).
 - Referencia b2: Gómez, J. F; Coronel, A.J; Martinez de Irujo, L; Lorente, A. "Gestión de proyectos". FC Editorial. Madrid, 2000. ISBN 8428317747.
 - Referencia b3: Lock, D. "Gestión de proyectos". Ed. Paraninfo. Madrid, 1994. ISBN 8428317747.
 - Referencia b4: Moreno E.F.. "Infraestructuras comunes de telecomunicaciones en viviendas y edificios" Ed. McGraw Hill (2014)
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- Referencia c1: SERCOBE ¿ Gestión de la I+D+i- Normas UNE¿ (2008) ISBN 978-84-8143-567-2.
 - Referencia c2: Amándola, L.J. ¿ Gestión de Proyectos de Manufacturera¿ Editoril UPV, ISBN 84-9705-311-7
 - Referencia c3: Reglamento Electrotécnico de Baja Tensión. Ed. Paraninfo (1997) ISBN 84-283-2109-4