COURSE DATA

DATA SUBJECT

Code: 34931
Name: Project management
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1404 - Degree in Industrial Electronic Engineering	Escola Tècnica Superior d'Enginyeria	3	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1404 - Degree in Industrial Electronic Engineering	Projects	COMPULSORY

COORDINATION

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SUMMARY

The Technical Office subject matter is part of projects whose overall objective is that students gain the ability to properly apply all previously acquired knowledge to the design, development and evaluation of projects and reports, applying the methodology and the basic principles of economics, management, quality and business organization as well as legislation, regulation and standardization in the field of industrial engineering. To do this, the subject addresses both aspects of organization and management of production and technical department. It is a compulsory subject that is taught quarterly basis in the third year of the Degree in Industrial Engineering, Industrial Electronics Branch, during the first quarter. The curriculum consists of a total of 6 ECTS. The basic objective of the Course is to introduce students to the concepts and techniques commonly used in the Management and Industrial Project Management, including documentary techniques used in the development of projects and the submission of the applicable law relating to industrial projects field of Industrial Electronics. Project Management is the directing and coordinating human and material resources, throughout the life cycle of a project to achieve the goals set d scope, cost and time and satisfaction of stakeholders in the project. In short, this is a set of methodologies and tools that aim to effectively managing a set of activities to achieve customer satisfaction. The course aims to teach students these methodologies and tools for their professional future solvency can deal with an industrial project.

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 work is embodied in a project.

COMPETENCES / LEARNING OUTCOMES

1404 - Degree in Industrial Electronic Engineering

CG11 - Knowledge, understanding and ability to apply the necessary legislation for practising professionally as a qualified industrial engineer.

CG1 - Ability to write, sign and develop industrial engineering projects in the field of industrial electronics, aimed at the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic installations, industrial installations and plants, and manufacturing and automation processes, in accordance with the knowledge acquired using a specified industrial electronic technology.

CG28 - Applied knowledge of business organisation.

CG29 - Knowledge and ability to organise and manage projects. Understand the organisational structure and the functions of a project office.

CG2 - Ability to manage the activities involved in the engineering projects described in the previous heading.

CG4 - Ability to solve problems with initiative, decision-making skills, creativity and critical reasoning and to communicate and transmit knowledge, abilities and skills in the field of industrial engineering (with specific industrial electronics technology).

CG6 - Ability to deal with specifications, regulations and mandatory standards.

CG9 - Ability to organise and plan work in companies and in other institutions and organisations.

DESCRIPTION OF CONTENTS

1. THE CONCEPT, CONTEXT, CHARACTERIZATION AND STAGES OF A INDUSTRIAL PROJECT

LESSON 01: The concept of an industrial project
LESSON 02: The context of an industrial project
LESSON 03: Characterization of external projects
LESSON 04: Characterization of internal projects
LESSON 05: The Quality Plan for the management of an industrial project

2. THE DRAFT

LESSON 06: The management of an industrial project
LESSON 07: The specifications of an industrial project
LESSON 08: The basic techniques of project planning
LESSON 09: Advanced techniques of project planning
LESSON 10: Feasibility studies and project risk
LESSON 11: The economic evaluation of a project
LESSON 12: The decision theory

3. THE PROJECT

LESSON 13: The implementation of industrial projects
LESSON 14: Validation of industrial projects
LESSON 15: Project monitoring and controlling
LESSON 16: Project closure
LESSON 17: Agile methodologies

4. THE PROFESSIONAL ACTIVITY

LESSON 18: The self-employment

5. LABORATORY

The purpose of the laboratory classes is that the student learns the use of computer programs for the planning, management and control of projects. This section is organized by means of several lab exercises in which the following contents will be addressed:
- MS PROJECT.
- Project planning with unlimited resources.
- Project planning with limited resources. Cost and load diagrams. Computerized project control.
- Development of a practical project.
- Economic and financial viability of a project.

WORKLOAD

PRESENCIAL ACTIVITIES

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

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	5,00
Individual or group project	40,00
Independent study and work	15,00
Preparation of lessons	0,00
Preparation for assessment activities	10,00
Resolution of case studies	20,00
Total hours	**90,00**

TEACHING METHODOLOGY

The development of the course is structured around the theory classes, practical classes, seminars and workshop classes and labs.

The ***theoretical activities (T)*** will be exposed by the classes of theory. In those classes, we will use the lecture model. The teacher will present on presentation and / or explain the contents of each issue impacting on key aspects for understanding. (CG4, CG6, CG9, CG11, CG28, CG29)

The seminar-workshop (S) will be developed according to the following methodology: Each student will choose a topic that may constitute future project to grade and develop the corresponding draft project,

prepare the corresponding presentation (Power-Point), and I will defend in public presentation. Following the presentation will proceed to a round of questions and discussion by the teacher and other students. (CG1, CG2, CG4, CG6, CG11)

For the ***laboratory sessions (L)*** will be scheduled activities for introducing the practice to perform the development activities of experimentation and analysis activities and treatment results. Students will have scripts for practice and testing will be conducted strictly by them under the supervision of the teacher. (CG6, CG9, CG11)

EVALUATION

The knowledge gained by the student may be assessed in two ways: On the one hand by continuous assessment or by a final exam (single evaluation system).

Continuous Assessment System

This system will be used to evaluate those students who regularly participate in the regular teaching activities, evaluating the theoretical activities, the seminars-workshops and the laboratory activities.

The knowledge acquired in the theory classes will be evaluated by means of a series of short questionnaires throughout the course and an individual objective test, consisting of a final theory exam. This exam will consist of theoretical-practical questions of what has been exposed both in the Theory classes and the Seminars-Workshops throughout the course**. The grade of the short quizzes will contribute to 10 % of the grade and the final theory exam will contribute to 30 % of the final grade.**

The evaluation of the Seminar-Workshop activities will be obtained through the quality of preparation of a report and public exposition of the topic presented by the student**. The grade of the seminars-workshops will contribute to 40 % of the final grade.**

The practical knowledge acquired in the laboratory classes will be evaluated through a final individualized test. **The grade of the laboratory practices will contribute to 20 % of the final grade.**

Summary of the final grade breakdown of the course:

Activity to be evaluated	Method of grading	% Final Grade
Theoretical Activities 1 (T)	Final theory exam	30 %
Theoretical Activities 2 (T)	Periodic short quizzes	10 %
Seminar-Workshop activities (S)	Report and exposition	40 %
Laboratory classes (L)	Final individual test	20 %
Total		**100 %**

In order to estimate the final grade, a **minimum grade of 4 in the sections "Theoretical Activities 1" and "Seminar-Workshop Activities" is compulsory.**

Alternative Evaluation System

For those students who for any reason cannot attend classes regularly or have not passed the continuous evaluation, in any of its different evaluations, the evaluation of the acquired knowledge can be done by means of a final exam of theory that will include the contents of all the classroom activities carried out (theoretical activities, and seminar-workshop activities) as well as by means of a laboratory exam. The grade of the theory exam will contribute to 75% of the final grade while the grade of the exam and the grade of the Laboratory exam will contribute to 25% of the final grade.

Summary of the final grade breakdown of the course:

Activity to be evaluated	Method of grading	% Final Grade
Theoretical Activities (T) and Seminar-Workshop activities (S)	Final theory exam	75 %
Laboratory class (L)	Final laboratory exam	25 %
Total		**100 %**

To estimate the final grade, a **minimum grade of 4 in any of the sections is compulsory.**

In any case, the regulation established by the University of Valencia related to the evaluation process of Degrees and Master studies apply.

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 ACTION PROTOCOL FOR FRAUDULENT PRACTICES AT THE UNIVERSITY OF VALENCIA (ACGUV 123/2020).

REFERENCES

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