Universidad Zaragoza

Academic Year of Degree: 2026/27

29830 - Project Office

Teaching Plan Information

Academic year: 2026/27
Subject: 29830 - Project Office
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
326 - Escuela Universitaria Politécnica de Teruel
Tipo de enseñanza: In person
Ambit: Electrical engineering, electronic engineering and telecommunications engineering
Degree: 440 - Bachelor's Degree in Electronic and Automatic Engineering
444 - Bachelor's Degree in Electronic and Automatic Engineering
664 - Bachelor Degree in Electronics and Automation Engineering
676 - Bachelor's Degree in Electronic and Automatic Engineering
ECTS: 6.0
Year: 4
Semester: First semester
Subject type: Compulsory
Module:

1. General information

The Project Office is a compulsory subject, which includes contents related to the realization and management of technical and industrial projects in the field of the degree; it aims at the understanding, the knowledge of the methodology and the use of the main tools for the efficient operation of technical offices in the industrial and automatic electronics sector.

During the development of the subject, the student is expected to acquire the basic concepts about the structure of an Industrial Engineering Project of the specialty, as a way to integrate and apply the different technical knowledge that the student has acquired throughout the career; specifically: the documentation that must be generated, the responsibilities that are acquired, the legal dispositions to which must be adhered, the tools available to carry out the processes of elaboration, execution and management, and finally, the standards applicable at each stage.

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This subject serves as a benchmark for assessing the following cross-disciplinary skill(s) of the "UNIZAR 1+5 Seal": (UZ1) Teamwork.

Further information at:

https://competenciastransversales.unizar.es/

https://cifice.unizar.es/apoyo-competencias-transversales

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This subject serves as a benchmark for assessing the following cross-disciplinary skill(s) of the "UNIZAR 1+5 Seal": (UZ2) Critical Thinking

Further information at:

https://competenciastransversales.unizar.es/

https://cifice.unizar.es/apoyo-competencias-transversales

2. Learning results

- HAB-11. Knowing the knowledge and skills to organise, develop and manage projects, as well as the organisational structure and functions of a project office.
- HAB-15. Acquire the ability to draft, sign and develop projects in the field of industrial engineering, in accordance with the knowledge acquired as established in section 5 of Order CIN/351/2009, the construction, reform, repair, conservation, manufacture, installation, assembly or operation of: structures, mechanical equipment, energy, electrical and electronic installations, industrial installations and plants, and manufacturing and automation processes.
- HAB-16. Acquire the ability to manage the activities involved in engineering projects.
    - HAB-16.1: Perform and carry out the definition, design, planning, development and monitoring of a project of their degree.
- HAB-17. Obtain knowledge in basic and technological subjects, which enable them to learn new methods and theories, and provide them with the versatility to adapt to new situations.
- HAB-18. Acquire the ability to solve problems with initiative, decision-making, creativity, critical reasoning and to communicate and transmit knowledge, skills and abilities in the field of Industrial Engineering.
- HAB-20. Acquire the ability to handle specifications, regulations, and mandatory standards.
    - HAB-20.1: Interpret the fundamental concepts and norms related to industrial projects of the degree.

- HAB-24. Acquire the ability to work in a multilingual and multidisciplinary environment.
    - HAB-24.1: Ability to work in a multidisciplinary environment.
- HAB-25. Obtain the knowledge, understanding and ability to apply the necessary legislation in the exercise of the profession of Industrial Technical Engineer,
    - HAB-25.1: Understand the aspects and characteristics involved in the technical studies of the industrial activity of their degree.

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- CTR-02. Teamwork. Actively collaborate with a group of people to achieve a common goal by combining their different talents.
    - CTR-02.1: Jointly define the team's objectives.
    - CTR-02.2: Cooperate with others toward a shared goal.
    - CTR-02.3: Take responsibility for collaborative work.
    - CTR-02.4: Identify potential roles within the team.

As this subject serves as a benchmark for cross-disciplinary skills, students who demonstrate satisfactory development of the skills listed above will have the corresponding learning outcomes recognised on the UNIZAR 1+5 Seal certificate; these are included in Annex 1 of the Resolution issued by the Vice-Rectorate for Academic Policy and the Vice-Rectorate for Digital Strategy and Artificial Intelligence, on cross-disciplinary skills and the UNIZAR 1+5 Seal.

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- CTR-03. Critical thinking. To reflect deeply on a topic, being able to deliberate on its validity by subjecting one's own and external beliefs to debate.
    - CTR-03.1: To explore a topic that involves several different lines of reasoning, knowing how to limit the direct extrapolation of the concepts, methodologies, and information in which we have been trained.
    - CTR-03.2: Identify the differences and ways in which what are considered facts, opinions, interpretations, and assessments are constructed.
    - CTR-03.3: Identify and evaluate the possible consequences of our decisions, as well as propose reasoned alternatives in response to a given situation, event, or concept.

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3. Syllabus

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- Topic 0. Presentation of the subject (contents, means and objectives).
- Topic 1. The morphology of the Industrial Project (introduction to the Technical Office Project and the classical theory of Projects according to UNE 157001:2014).
- Topic 2. Industrial Project Management (introduction to advanced project theory according to the UNE standard) 21500:2013 and the PMBook guide).
- Topic 3. Applicable regulations in the realization of Electronic Projects.
- Topic 4. Regulations and Legislation related to Electronic Projects.
- Topic 5. Techniques for the realization of the electronic prototype.

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- Unit 1: Introduction to the Industrial Project
- Unit 2: The morphology of the Industrial Project . UNE 157001:2014
- Unit 3: Regulations and Legislation related to Industrial and Electronic Projects.
- Unit 4: Industrial Project Management
- Unit 5: Industrial Construction Management

4. Academic activities

The program offered to the student to help them achieve the expected results comprises the following activities:

- Teaching type 1 : Theory classes (30 hours). It is based on the presentation of the concepts in the classroom or virtual classroom theoretical lectures with the use of a blackboard and teaching aids (transparencies, presentation software, etc.).
- Teaching type 2: Problem classes (15 hours). Problem classes in which the professor will propose the resolution of various application exercises, using computer tools and theoretical concepts complementary to those explained in theory classes.
- Teaching type 3: Laboratory Practices (15 hours). Laboratory practices in a computer classroom or appropriate for such purposes on own or School computer equipment (if available and appropriate).
- Teaching type 7: Personal study (88 hours). Individual dedication of the student necessary to consolidate a correct learning process.

- Teaching type 8: Assessment tests: 2 hours.
- Other activities: Tutoring. Direct attention to the student, identification of learning problems, orientation in the subject, additional attention to exercises and assignments, etc.

5. Assessment system

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The student must demonstrate achievement of the intended learning results through the assessment activities:

1. Theoretical assessment of the subject: In each official exam session, a global test will be given, which will include all the theory blocks explained. The final grade for this activity will be from 0 to 10 points, and its value weighted (from a minimum grade of 5 points) will represent 25% of the student's overall grade.

2. Work or Project of the subject: Throughout the four-month period, students will carry out a project in groups of work or individually if the student so decides. The final grade for this activity will be from 0 to 10 points, and its weighted value (based on a minimum grade of 5 points) will represent 75% of the student's overall grade.

Final assessment of the subject: The course will be considered passed in the corresponding official call, when both the final grades of the Theoretical Exam and the Paper are equal or higher than 5, resulting in the weighted average of both (and according to their specific weight) the overall grade of the subject.

Global test (in official calls): In addition to the above, all students have the right to a global assessment test in the official exams. This test will consist of the theoretical exam and the realization of a project according to the teacher's specifications. This test will take place during the period established by the Center in the academic calendar.

Finally, the specific assessment of Cross-Disciplinary Competence (UZ1) Teamwork will be carried out through a CONTINUOUS ASSESSMENT METHODOLOGY applied to the development of the subject's annual project. The outcome will be incorporated complementarily and separately into the student's final mark for the subject. It is very highly important to note that students who choose to complete the annual project individually will not be eligible to achieve accreditation for competence UZ1 in this subject.

This continuous assessment methodology to be implemented is based on the deployment of three actions:

1. Generation of a "team contract" (a commitment document SIGNED by all members of the working team).
2. Application of a set of assessment criteria (a rubric) clearly aligned with the 4 defined Learning Outcomes (LO).
3. Establishment of a method for the periodic collection, throughout the semester, of two types of "documentary records" (Team Logbook + Personal Report). This will enable individual performance within each working team to be differentiated, thereby ensuring objectivity and comparability.

The final Mark for competence (UZ1) Teamwork (WHICH IS INDEPENDENT OF THE SUBJECT'S FINAL MARK) will be:
SATISFACTORY (PASS) = WHEN THERE IS A MAJORITY OF "SATISFACTORY" ASSESSMENTS AMONG THE 4 LOs
DEVELOPING (FAIL) = WHEN THERE IS A MAJORITY OF "DEVELOPING" ASSESSMENTS AMONG THE 4 LOs

In light of the above, the student may or may not (regardless of passing this subject):

1. OBTAIN THE UZ1 ACCREDITATION IN THIS SUBJECT BY COMPLETING ITS ANNUAL PROJECT AS PART OF A TEAM.
2. OBTAIN THE UZ1 ACCREDITATION IN ANOTHER SUBJECT WITHIN THE DEGREE.

Additional clarification: In specific cases where it is deemed necessary by the Lecturers, the student must be able to demonstrate the authorship of the coursework/practical assignments completed in the subject during an oral interview; otherwise, the mark for those assignments will be 0.

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- Test about Theory of Project Office: 20%
- Work about Project Budgets with Arquímedes: 20 %
- Work about Project Managment with Project: 20%
- Project: Execution and Defense: 40%.

Final assessment of the subject: The course will be considered passed in the corresponding official call, when both the final grades of the Theoretical Exam and the Paper are equal or higher than 5, resulting in the weighted average of both (and according to their specific weight) the overall grade of the subject.

Global test (in official calls): In addition to the above, all students have the right to a global assessment test in the official exams. This test will consist of the theoretical exam and the realization of a project according to the teacher's specifications, and works about project budgets, and project management. This test will take place during the period established by the Center in the academic calendar.

Finally, the specific assessment of Cross-Disciplinary Competence (UZ2) Critical Thinking will be carried out through a DEFENSE of the subject's annual project. The outcome will be incorporated complementarily and separately into the student's final mark for the subject.

5.1. Academic fraud prevention

The use of unauthorised electronic materials or devices during the assessment may result in immediate exclusion from the examination and a fail mark (a numerical mark of ‘0’ for the assessment).

Furthermore, the lecturer in charge may complete the grade report and submit it to the General Inspectorate of Services, so that it may, where appropriate, consider initiating disciplinary proceedings against the student for academic fraud.

In the case of a continuous assessment exam [continuous assessment cannot continue, unless otherwise specified in the academic guide.]

In the case of a regular or extraordinary exam session, the initiation of disciplinary proceedings will result in the grade ‘pending resolution’ until the proceedings are concluded.

6. Sustainable Development Goals

9 - Industry, Innovation and Infrastructure

7. Bibliography

- Campo Arranz, Raquel. Gestión de proyectos / Raquel Campo Arranz, María del Campo Domínguez, Víctor Rodrigo Raya Ra-ma, 2003.
- Guía de los fundamentos de la dirección de proyectos / PMI Standards Committee. - 1ª ed. Zaragoza : Asociación Española de Ingeniería de Proyectos, 1998.
- Torres Portero, Manuel. Diseño e ingeniería electrónica asistida con PROTEL DXP / Manuel Torres Portero, Miguel Ángel Torres Portero Madrid : RA-MA, D.L. 2004.