



Universidad de Jaén

School of Engineering of Jaén

Projects

2024-2025

Grado en Ingeniería Geomática y Topográfica (E.P.S. Jaén)



CREA

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Syllabus 2024-25 - 13212018 - Projects (Proyectos)

Caption

- Level 1: Tutorial support sessions, materials and exams in this language
- Level 2: Tutorial support sessions, materials, exams and seminars in this language
- Level 3: Tutorial support sessions, materials, exams, seminars and regular lectures in this language

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DEGREE:

Grado en Ingeniería geomática y topográfica

FACULTY:

SCHOOL OF ENGINEERING OF JAÉN

ACADEMIC YEAR:

2024-25

COURSE:

Projects

SYLLABUS

1. COURSE BASIC INFORMATION

NAME: Projects

CODE: 13212018

ACADEMIC YEAR: 2024-25

LANGUAGE: English

LEVEL: 0

ECTS CREDITS: 6.0

YEAR: 4

SEMESTER: SC

2. LECTURER BASIC INFORMATION

NAME: ORTEGA JÓDAR, M^a JESÚS

DEPARTMENT: U113 - INGENIERÍA GRÁFICA, DISEÑO Y PROYECTOS

FIELD OF STUDY: 720 - PROYECTOS DE INGENIERÍA

OFFICE NO.: -

E-MAIL: -

P: -

WEBSITE: -

ORCID: -

LANGUAGE: -

LEVEL: 2

3. CONTENT DESCRIPTION

SECTION 1 - BASIC ASPECTS AND PROJECT METHODOLOGY

Unit 1 - The Project

Unit 2 - Engineering work

Unit 3 - Legislation and Standards

SECTION 2 - PROJECT MORPHOLOGY AND OTHER TECHNICAL DOCUMENTS

Unit 4 - Project Specification or Report

Unit 5 - The Project Annexes

Unit 6- Blueprints

Unit 7 - Terms and Conditions

Unit 8 - Measurements

Unit 9 - Budget and Financial feasibility

SECTION 3 - PROJECT MANAGEMENT, CONTRACTING AND IMPLEMENTATION

Unit 10 - The Direction of the Construction and Project Implementation

Unit 11 - The Promoter

Unit 12 - The Contract

During the development of this block, lectures will be given by external experts on new trends in Project Management and Administration, Project Processing and Execution or Application of BIM technologies for project drafting.

PRACTICES DETAILED CONTENTS

All practical contents are related to the blocks defined for the subject. For its development, the following program is foreseen:

BLOCKS 1 to 3:

* Writing an Engineering Project

Applying the **Project Based Learning** methodology, it is proposed the drafting, in work groups, of an **engineering project**, where the students will be making a project based on the concepts taught in theory and based on the UNE 157001 standard. It will be important the study of possible alternatives to the proposed design of their project, as a consequence of the interpretation of the results of the calculations carried out and whose conclusions will be reflected in the corresponding annexes.

BLOCK 4: EVALUATION, PLANNING, PROGRAMMING AND CONTROL OF PROJECTS

* **Practical sessions of Planning:** Use of specific software for planning, evaluation and control of projects (e.g. Project or similar).

* **Practical sessions on Budgeting:** Use of commercial software for the preparation of Measurements and Budgets of the projects (e.g. Presto or similar).

4. COURSE DESCRIPTION AND TEACHING METHODOLOGY

LARGE GROUP CLASSES:

The theoretical foundations of the subject will be exposed, encouraging active participation through the creation of discussion environments within the class, as well as the cooperative work of the students, as a result of the study of real cases and resolution of exercises.

Finally, attendance to some of the planned conferences will be proposed, as indicated in the Contents section of this guide, also encouraging the creation of environments for debate and analysis.

With these activities it is expected to achieve the competences CE19R, CE21R, CE22R, CE23R, CT1, CT2 and CT6 indicated in the guide, as well as the expected results 10 and 11.

SMALL GROUP CLASSES:

-Practical Activity: a group work of 2-3 people will be proposed for the drafting of an engineering project where, through a methodology based on project-based learning, the concepts taught in the theory classes will be highlighted in a practical way, and following the UNE 157001 standard.

- Seminars: The group work sessions will start with a brief introductory seminar, where some of the concepts taught in lectures will be expanded, but in a practical way.

For example, some of these practical seminars will be devoted to the interpretation of the specifications published on the State procurement platform, in order to familiarize students with the initial stages of preparing a project in the most realistic way possible. Likewise, the search for specific regulations that affect their projects will be encouraged.

This will reinforce the capacity for information management, handling and application of technical specifications, as well as the necessary legislation for the practice of engineering in the form of project drafting.

-Exercise resolution: Practical exercises will be presented for their resolution in class, in order to reinforce the theoretical foundations and develop the necessary skills for the mastery of the subject, especially in relation to the preparation of budgets.

-Computer practices: Practical activities will be developed in the computer classroom to learn the use of a computer project management tool, as well as another related to the preparation of budgets for a project.

- Tutorials and personalized attention: Both during the established tutoring schedule or through forums on the virtual platform, as well as through e-mail, the specific doubts that may arise throughout the course will be solved.

With these activities it is expected to achieve the competences CE19R, CE21R, CE22R, CE23R, CT1, CT2 and CT6 indicated in the guide, as well as the expected results 10 and 11.

Students with special educational needs should contact the Student Attention Service (Servicio de Atención y Ayudas al Estudiante) in order to receive the appropriate academic support

5. ASSESSMENT METHODOLOGY

In accordance with each criterion proposed in the evaluation system, the aim is to achieve the competencies and learning results described below:

S1: Active participation in the class. Participation in debates. Participation in group work. Attendance at conferences, seminars and visits (weight 10%)

Competences: CE19R, CT1, CT2 and CT6.

Learning outcomes: 10 and 11.

-S2: Proficiency in the THEORETICAL operational knowledge of the subject (weight 50%)

Competences: CE19R, CE21R, CE22R, CE23R and CT6.

Learning outcomes: 10 and 11.

-S2: Proficiency in the PRACTICAL operational knowledge of the subject (weight 20%)

Competences: CE19R, CE21R, CE22R, CE23R and CT6.

Learning outcomes: 10 and 11.

-S3: Structure, quality, originality, capacity for analysis and synthesis, writing and presentation (weight 20%).

Competences: CE19R, CE21R, CE22R, CE23R, CT1, CT2 and CT6.

Learning outcomes: 10 and 11.

Criterion S2 (theory) will be evaluated by means of an exam, while criteria S1, S2 (practical) and S3 will be evaluated continuously, mainly in the practical classes through the writing of the project and other assignments.

THE FOLLOWING REQUIREMENTS MUST BE MET:

- The student must carry out the practical project in order to pass the subject.
- In addition, they must obtain a mark of 5 in both the theory and the practical project in order to pass the course.
- In the case of failing any part in the Ordinary exam (theory or practical), the grade of the other part will appear as "Failed" in the qualification records.
- In the case of not presenting at any part (theory or practical) and passing the other part in the Ordinary exam, in the qualification record will appear as "Not presented", keeping the grade of the approved part (theory or practical).
- The qualification of the project will be kept during the current academic year

6. BOOKLIST ([Access the bibliography in the Library catalog](#))

MAIN BOOKLIST:

- Project management, planning and control [electronic resource] : managing engineering, construction and manufacturing projects to PMI, APM and BSI standards . Edition: 5th ed.. Author: Lester, Albert.. Publisher: Elsevier Butterworth-Heinemann ([Library](#))

7. SUSTAINABLE DEVELOPMENT GOALS

Educación de calidad

Industria, innovación e infraestructura

DETAILED INFORMATION

This subject aims to guarantee free, inclusive, equitable and quality education, and is therefore related to SDG 4.

In addition, the contents taught in this subject are directly related to SDG 9, since the practical work that they will develop is linked to developing solutions close to their future work performance.

8. VIRTUAL / CLASSROOM TEACHING SCENARIO

TEACHING METHODOLOGY AND TRAINING ACTIVITIES

Training Activities	Format (On-site/Online)*	Teaching Methodology (Description)
A1 - Large Group Lectures	On-Site 100%	Lecture to all students in the group at the assigned time and classroom. Participatory master class sessions held in the classroom according to the proposed schedule, and, if necessary, broadcast by videoconference to the rest of the group that will rotate periodically
A2- Small-Group sessions	On-Site 100%	Class in the timetable and classroom assigned to part of the group and retransmission by videoconference to the rest, with periodic rotation of students, as determined by the Center. The group work, the exercise resolution sessions, as well as the computer practices, can be done in on-site and online as described in this guide and planned in the schedule.

Mentoring Sessions	On-Site + Online	Some personalised tutoring sessions will be carried out face-to-face and others online (synchronous and asynchronous)
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(*) The Centre may establish a different percentage of attendance depending on the number of students and the capacity of the classroom/laboratory.

EVALUATION SYSTEM

The evaluation system in the Multimodal or Mixed Scenario remains unchanged from the Normal Scenario. The final examination will be on-site and will be held on the officially established date and the evaluation of the Project in the Practices will be as indicated in the description of the evaluation system of the Normal Scenario.

RESOURCES

Both for the attention of the tutorials with the teachers involved, as well as for the realization of the tests and/or online exercises, are incorporated as resources:

- Google Suite applications and tools.
- Online Computer software
- Tools available on the PLATEA platform.
- Online bibliographic collections available in the library

9. VIRTUAL TEACHING SCENARIO

TEACHING METHODOLOGY AND TRAINING ACTIVITIES

Training Activities	Format (On-site/Online)	Teaching Methodology (Description)
A1 - Large Group Lectures	Online	Replacement of face-to-face sessions by synchronous online training sessions via videoconference
A2- Small-Group sessions	Online	The group work, the exercise resolution sessions, as well as the computer practices, can be done in a non-presential way as described in this guide, organized in both synchronous and asynchronous sessions.
Mentoring Sessions	Online	All mentoring sessions will be conducted online (synchronous and asynchronous)

EVALUATION SYSTEM

In the non-attendance scenario, the aspect of the evaluation "Theoretical Subject Concepts", which was carried out by means of the instrument: "theoretical-practical examination" in a face-to-face way, is replaced by online evaluation tests with the same weight as in the original teaching guide.

The rest of the qualification corresponds to the writing of the project as a practice work, as well as the observations that the teacher takes according to the participation of the student in virtual activities.

In those cases in which the engineering project carried out as an practical training in the current academic year has been approved, the qualification obtained in the ordinary call will be maintained throughout the present academic year.

RESOURCES

Both for the attention of the tutorials with the teachers involved, as well as for the realization of the tests and/or online exercises, are incorporated as resources:

- Google Suite applications and tools.
- Online Software.
- Tools available on the PLATEA platform.
- Online bibliographic collections available in the library.

DATA PROTECTION CLAUSE (on line exams)

Institution in charge of data processing: Universidad de Jaén, Campus Las Lagunillas, s/n, 23071 Jaén

Data Protection Delegate: dpo@ujaen.es

Purpose: In accordance with the Universities Law and other national and regional regulations in force, carrying out exams and assessment tests corresponding to the courses students are registered in. In order to avoid frauds while sitting the exam, the exam will be answered using a videoconference system, being able the academic staff of the University of Jaén to compare and contrast the image of the person who is answering the exam with the student's photographic files. Likewise, in order to provide the exam with evidential content for revisions or claims, in accordance with current regulation frameworks, the exam will be recorded and stored.

Legitimacy: compliance with legal obligations (Universities Law) and other national and regional regulations currently in force.

Addressees: service providers who are the owners of the platforms where the exams are carried out and with whom the University of Jaén has signed the corresponding data access contracts.

Storage periods: those established in current in force regulations. In the specific case of exam videoconference recordings, not before the examination records and transcripts are closed or the exam can still be reviewed or challenged.

Rights: you can exercise your right of access, amendment, cancellation, opposition, suppression, limitation and portability by sending a letter to the postal or electronic address indicated above. In the event that you consider that your rights have been violated, you may submit a complaint to the Andalusian Council for Transparency and Data Protection www.ctpdandalucia.es

CLASS RECORDING CLAUSE PERSONAL DATA PROTECTION

Person in charge: Universidad de Jaén, Paraje Las Lagunillas, s/n; Tel.953 212121; www.ujaen.es

Data protection delegate (DPO): TELEFÓNICA, S.A.U. ; Email: dpo@ujaen.es

Procedure aim: To manage proper recordings of teaching sessions with the aim of facilitating learning process under a multimodal and/or online teaching

Period for record storage: Images will be kept during legal term according to regulations in force

Legitimacy: Data will be managed according to legal regulations (Organic Law 6/2001, December 21, on Universities) and given consent provided by selecting corresponding box in legal admission documents

Data recipients (transfers or assignments): Any person allowed to get access to every teaching modality

Rights: You may exercise your rights of access, rectification, cancellation, portability, limitation of processing, deletion or, where appropriate, opposition. To exercise these rights, you must submit a written request to the Information, Registration and Electronic Administration Service of the University of Jaen at the address above, or by e-mail to the address above. You must specify which of these rights you are requesting to be satisfied and, at the same time, you must attach a photocopy of your ID card or equivalent identification document. In case you act through a representative, legal or voluntary, you must also provide a document that proves this representation and identification. Likewise, if you consider that your right to personal data protection has been violated, you may file a complaint with the Andalusian Data Protection and Transparency Council www.ctpdandalucia.es