

Academic Year/course: 2022/23

28634 - Technical Projects II

Syllabus Information

Academic Year: 2022/23

Subject: 28634 - Technical Projects II

Faculty / School: 175 - Escuela Universitaria Politécnica de La Almunia

Degree: 422 - Bachelor's Degree in Building Engineering

ECTS: 6.0

Year: 4

Semester: Second semester

Subject Type: Compulsory

Module:

1. General information

1.1. Aims of the course

The subject and its expected results respond to the following approaches and objectives:

The specific objectives of the subject are:

Ability to develop projects

Understanding the regulatory framework

Learn the different methods of project presentation

Be able to interpret a project

Know the role and responsibilities of the designer

To be able to develop studies of real estate promotions

These approaches and objectives are in line with the following Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda (<https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the course learning outcomes provides training and competence to contribute to their achievement to some degree:

Goal 4: Quality Education

Goal 5: Achieve gender equality and empower all women and girls

Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

Goal 11: Make cities inclusive, safe, resilient and sustainable

Goal 12: Ensure sustainable consumption and production patterns

Goal 13: Take urgent action to combat climate change and its impacts

Specifically with the goals:

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

5.B Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

9.C Significantly increase access to information and communications technology and strive to provide universal and

affordable access to the Internet in least developed countries by 2020

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

1.2. Context and importance of this course in the degree

The subject is located in the 8th semester of the degree. The student arrives at it with enough knowledge acquired to be able to complete the subject without any difficulties added to the ones of the subject.

It is very important. After passing through this subject, in conjunction with the subject of Projects I, students must be able to solve any type of project in the field of building, whatever their nature and circumstances.

1.3. Recommendations to take this course

No requirements of prior knowledge, beyond those marked by the Ministry for access to a university degree of Technical Architecture Degree.

It is recommended to have passed all the subjects of the Area of ??Graphic Expression and Projects, previously studied in the Degree: Graphic Expression applied to the Building, Descriptive Geometry and Graphic Expression of Construction Technologies. It is also recommended to have passed the courses of Building I, II and III; the subjects of Structures and the subjects of Facilities. Likewise it is recommended to be studying the subject of Projects I.

2. Learning goals

2.1. Competences

Upon passing the subject, the student will be more competent to ...

Apply the advanced tools necessary for solving the parts involved in the technical project and its management. He will have the aptitude to write technical projects of works and constructions that do not require a project. architectural, as well as demolition projects and in other areas. Will be able to analyze, review and control technically the graphic documentation and other documents of the Project.

Likewise, they will have the ability to write documents that are part of execution projects prepared in a multidisciplinary. Ability to analyze execution projects and their transfer to the execution of works. Fitness for comprehensive management and optimization of building projects and ability to rule on technical and legal anomalies comprehensive management and optimization of building projects and ability to rule on technical and legal anomalies in building projects, propose solutions to avoid or correct them and analyze, check, control, review, audit and verify advanced regulatory and technical aspects of the project.

You will have knowledge of the roles and responsibilities of the agents involved in the building and its professional or business organization. Administrative, management and processing and organization procedures professional and basic procedures in the field of building and promotion.

Specific competences

CE27 - Ability to apply the advanced tools necessary for solving the parts involved in the technical project and its management.

CE28 - Ability to write technical works and construction projects, which do not require an architectural project, as well as demolition and decoration projects.

CE29 - Ability to write documents that are part of multidisciplinary execution projects.

CE30 - Ability to analyze execution projects and their transfer to the execution of works.

CE31 - Knowledge of the roles and responsibilities of the agents involved in the building and of their professional or business organization. Administrative, management and processing procedures.

CE32 - Knowledge of professional organization and basic procedures in the field of building and promotion

General competences

G01 - Organizational and planning capacity

G02 - Ability to solve problems

G03 - Ability to make decisions

G04 - Aptitude for oral and written communication of the native language

- G05 - Capacity for analysis and synthesis
- G06 - Information management capacity
- G07 - Ability to work in a team
- G08 - Capacity for critical reasoning
- G09 - Ability to work in an interdisciplinary team
- G10 - Ability to work in an international context
- G11 - Improvisation and adaptation capacity to face new situations
- G12 - Leadership aptitude
- G13 - Positive social attitude towards social and technological innovations
- G14 - Capacity for reasoning, discussion and presentation of own ideas
- G15 - Ability to communicate through words and images
- G16 - Ability to search, analyze and select information
- G17 - Ability for autonomous learning
- G18 - Possess and understand knowledge in an area of ??study that starts at the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study.
- G19 - Apply their knowledge to their job or vocation in a professional way and possess the competencies that are usually demonstrated by preparing and defending arguments and solving problems within their area of ??study.
- G20 - Ability to collect and interpret relevant data (usually within their area of ??study) to make judgments that include reflection on relevant issues of a social, scientific or ethical nature.
- G21 - Transmit information, ideas, problems and solutions to a specialized and non-specialized audience.
- G22 - Develop those learning skills necessary to undertake further studies with a high degree of autonomy.
- G23 - Know and understand respect for fundamental rights, equal opportunities between women and men, universal accessibility for people with disabilities, and respect for the values ??of the culture of peace and democratic values.
- G24 - Promote entrepreneurship.

2.2. Learning goals

The student, to pass this subject, must demonstrate the following results ...

The competencies of the undergraduate degree that the subject contributes to achieve, as well as the learning results are the following:

Generic Competencies:

- G01. Organizational and planning skills
- G02. capacity to solve problems
- G03. Ability to make decisions
- G04. Aptitude for oral and written communication of the native language
- G05. Capacity for analysis and synthesis
- G06. Ability to manage information
- G07. Capacity for teamwork
- G08. Capacity for critical reasoning
- G09. Ability to work in an interdisciplinary team
- G10. Ability to work in an international context
- G11. Improvisation and adaptation capacity to face new situations
- G12. Leadership aptitude
- G13. Positive social attitude towards social and technological innovations
- G14. Ability to reason, discuss and present your own ideas
- G15. Ability to communicate through words and images
- G16. Ability to search, analyze and select information
- G17. Capacity for independent learning.
- G18. Possess and understand knowledge in a study area that starts from the general secondary education base, and It is usually found at a level that, although supported by advanced textbooks, also includes some aspects that they involve knowledge from the forefront of their field of study.
- G19. Apply their knowledge to their job or vocation in a professional way and possess the skills they usually demonstrate through the development and defense of arguments and problem solving within their area of ??study.
- G20. Ability to collect and interpret relevant data (usually within your study area) to make judgments that include a reflection on relevant social, scientific or ethical issues.
- G21. Transmit information, ideas, problems and solutions to a specialized and non-specialized audience.
- G22. Develop those learning skills necessary to undertake further studies with a high degree of autonomy.

Specific Competences:

- CE27. Aptitude for the development of market studies, valuations and appraisals, real estate feasibility studies, expert appraisal and economic appraisal of risks and damages in the building.
- CE28 Ability to write technical projects of works and constructions, which do not require architectural project, as well as demolition and decoration projects.
- CE29. Ability to write documents that are part of multidisciplinary execution projects.
- CE30. Ability to analyze execution projects and their transfer to the execution of works.
- CE31. Knowledge of the roles and responsibilities of the agents that intervene in the building and its professional or business organization. The administrative, management and processing procedures.
- CE32. Knowledge of professional organization and basic procedures in the field of building and promotion.

2.3. Importance of learning goals

Both aim to ensure that students are able to face any type of project in the field of building, having sufficient tools and the necessary knowledge to solve any technical solution, in a reasoned, justified, and coherent way, in parameters of equity, constructive logic, economy of means materials, human and economic, as well as sustainability and energy saving and consumption.

These subjects are the platform that will serve as the basis for the correct development of the Final Degree Projects. The correct selection of the works and practices to develop in both subjects as well as a suitable work that lead to obtaining final results

3. Assessment (1st and 2nd call)

3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

The student must demonstrate that he / she has achieved the expected learning results through the following evaluation activities

Carrying out face-to-face defense activities and justification of personal proposals. Individual elaboration of work required outside school hours. Acquisition of the expected knowledge.

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. It is based on participation and the active role of the student favors the development of communication and decision-making skills. A wide range of teaching and learning tasks are implemented, such as lectures, guided assignments, laboratory sessions, autonomous work, and tutorials.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

- The approach, methodology and assessment of this guide are intended to be the same for any teaching scenarios. They will be adapted to the social-health situation at any particular time, as well as to the instructions given by the authorities concerned.

4.2. Learning tasks

This 6 ECTS course is organized as follows:

- **Lectures** (1.5 ECTS): 37.5 hours. The professor will explain the theoretical contents of the course and solve illustrative applied problems. These problems and exercises can be found in the problem set provided at the beginning of the term. Lectures run for 3 weekly hours. Although it is not a mandatory activity, regular attendance is highly recommended.
- **Guided assignments** (1.5 ECTS): 37.5 hours. Students will complete assignments, problems and exercises related to concepts seen in lectures. They will be submitted at the beginning of every session to be discussed and analyzed. If assignments are submitted later, students will not be able to take the assessment test.
- **Autonomous work** (3 ECTS): 75 hours. Students are expected to spend about 75 hours to study theory, solve problems, prepare lab sessions, and take exams.
- **Tutorials:** the professor's office hours will be posted on Moodle and the degree website to assist students with questions and doubts. It is beneficial for the student to come with clear and specific questions.

1 ECTS correspond to 10 hours.

4.3. Syllabus

The program offered to the student to help him achieve the expected results includes the following activities...

Knowledge of current regulations.

Step-by-step processes.

Interpretation of real professional work.

Theoretical.

THE MEMORY OF A PROJECT

DESCRIPTIVE MEMORY

CONSTRUCTIVE MEMORY

JUSTIFICATION C.T.E.

ANNEXES

CALCULATION OF FACILITIES
STRUCTURE CALCULATION
PHOTOGRAPHIC REPORTS
OTHERS
SPECIFIC CASES
OTHER PROJECT DOCUMENTS
SPECIFICATIONS
HEALTH AND SAFETY STUDY
WASTE MANAGEMENT
ENERGETIC CERTIFICATION

Practical.

Each subject exposed in the previous section has associated practices in this regard.

As the topics are developed, these Practices will be raised, either in class or through the Moodle platform.

materials

Audiovisual and written materials will be used in the course. The written documents necessary for the development of the subject will be provided with sufficient notice in person or via the Teacher's Digital Ring through the platform

Moodle: <http://moodle.unizar.es>.

Support Material

Notes

Visual Support

Case studies

Paper / Repository,

Moodle

Job proposal

Links of interest

4.4. Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of EUPLA website and Moodle (<http://www.eupla.unizar.es>).

4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=28634>