

28609 - Building I

Syllabus Information

Academic year: 2023/24

Subject: 28609 - Building I

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

Degree: 422 - Bachelor's Degree in Building Engineering

ECTS: 6.0

Year: 1

Semester: First semester

Subject type: Compulsory

Module:

1. General information

First of all, that the student knows the area in which he/she will develop the exercise of his/her profession and the regulations that govern it regulating it.

Secondly, to acquire the necessary skills to enable him/her to know, understand, design and execute systems and construction processes corresponding to the first phase of the building work, that is, the recognition of the soil, foundations, containment, structures and enclosures.

These approaches and Goals are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (<https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement. This academic year we will work on the following SDGs: 3,4,6,7,9,11,12 y 13

2. Learning results

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

- Have knowledge of the traditional or prefabricated construction systems used in construction and their varieties
- Have the ability to identify the elements and construction systems, define their function and compatibility, and their implementation in the construction process.
- Know how to plan and solve construction details, as well as to conceive, design, define, detail and solve technically and technologically elements, processes and construction systems.
- Be able to apply technical regulations to the building process, and to generate technical specification documents for building procedures and methods .

3. Syllabus

Theoretical

Unit 1 The Construction Process in Building.

Unit 2 Soils, Stakeout and Earthworks.

Unit 3 Foundations.

Unit 4 Deep Foundations.

Unit 5 Walls.

Unit 6 Loads.

Unit 7 Stairs.

Unit 8 Metallic Structures.

Unit 9 Wooden Structures.

Unit 10 Factory Structures.

Unit 11 Brick Façades.

Unit 12 Interiors.

Unit 13 Continuous Coatings.

Unit 14 Pavements.

Unit 15 Covers.

Practical

Practice No. 1

Earthwork and/or Soil Characterization Calculations.

Practice No. 2

Design of Surface Foundations.

Practice No. 3

Determination of Loadings in Floor Slabs and Design of Structural Plans

Practice No. 4

Calculation and Design of Stairs.

Practice No. 5

Layout of Exposed Brick Factory

Practice No. 6

Roof Design

4. Academic activities

The program offered to the student to help him/her achieve the expected results comprises the following activities...

It involves the active participation of the students, in such a way that in order to achieve the learning outcomes, the following activities will be carried out: Without wishing to reiterate what has been said above:

Generic face-to-face activities:

- Theoretical classes: The theoretical concepts of the subject will be explained and illustrative practical examples will be developed to support the theory when necessary.
- Practical classes: Problems and case studies will be carried out as a complement to the theoretical concepts studied.

Generic non face-to-face activities:

- Study and assimilation of the theory presented in the lectures.
- Understanding and assimilation of problems and case studies solved in practical classes.
- Preparation of seminars, resolution of proposed problems, etc.
- Preparation of practices, preparation of the corresponding scripts and reports.
- Preparation of written tests for continuous assessment and final exams.

Tutored autonomous activities: Although they will have more of a face-to-face character, has been taken into account due to its idiosyncrasy, they will be mainly focused on seminars and tutorials under the supervision of the teacher.

Reinforcement activities: Of a markedly non face-to-face nature, through a virtual teaching portal (Moodle), will conduct various activities that reinforce the basic contents of the subject. These activities may be customized or not, being controlled through the same.

5. Assessment system

At the beginning of the subject the student will choose one of the following two evaluation methodologies:

Global Assessment, with continuous monitoring: characterized by the obligation to perform and pass the practical tests and academic work proposed in the subject within the established deadlines, and to take a final written test.

Global assessment, without continuous monitoring: characterized by not performing or not passing the practical tests, or academic work proposed in the subject. In this case, the student, in addition to taking the final written test, must pass a final practical test, to be held on the same day of the exam, which will be a compendium of the practices developed during the term and will be carried out on the basis of a proposed statement on a real building.

The deadline and mode of delivery of the practical tests and academic work will be indicated in the delivery of statements.

1.- GLOBAL ASSESSMENT MODE, CONTINUOUS MONITORING

The assessment model will be global with continuous monitoring, and the teacher will assess the student's participation in the classes

theoretical knowledge, the demonstration of acquired knowledge and the ability to solve problems that the teacher will observe in the practical classes. Likewise, the work/project carried out by the student as a group will be assessed.

Finally, the student must take a final written test on the theoretical contents of the subject.

The following section summarizes the indicative weights of the parts mentioned in the assessment process.

- Participation in theory classes 10%
- Individual and Group Practices 40%
- Final Written Test 50%

Each of the parts passed in the subject must not be re-assessed during that academic year.

The grade obtained in the practical work, as long as it exceeds the minimum required (4.0), will be maintained exclusively in the two academic

Any student who does not pass the minimum requirements of the practical tests or academic work proposed in the subject, will automatically will automatically pass to the global evaluation model without continuous monitoring

2.- GLOBAL ASSESSMENT MODE WITHOUT CONTINUOUS MONITORING

The student must opt for this mode when, due to his/her personal situation, he/she cannot adapt to the pace of work required in the global evaluation mode with continuous monitoring

The student, in addition to the final written test, must pass a final practical test, to be held on the same day as the examination, which will be a compendium of the practices developed during the course and will be based on a proposal statement on a real building.}

Throughout the course, the student will be able to vary the evaluation system according to the evolution of his personal situation.

The following section summarizes the indicative weights of the parts mentioned in the assessment process.

- Final Practical Test 50%
- Final Written Test 50%