

## 28723 - Construction Works

### Syllabus Information

**Academic year:** 2023/24

**Subject:** 28723 - Construction Works

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

**Degree:** 423 - Bachelor's Degree in Civil Engineering

**ECTS:** 6.0

**Year:**

**Semester:** First semester

**Subject type:** Compulsory

**Module:**

### 1. General information

First of all, that students know the area in which they will develop the exercise of their 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 objectives 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

Acquire skills to design and construct building works in Civil Engineering.

### 3. Syllabus

Theoretical

Topic 1 The Construction Process in Building.

Topic 2 Soils, Stakeout and Earthworks.

Topic 3 Foundations.

Topic 4 Deep Foundations.

Topic 5 Walls.

Item 6 Loads.

Item 7 Stairs.

Topic 8 Metallic Structures.

Topic 9 Wooden Structures.

Topic 10 Factory Structures.

Topic 11 Brick Facades.

Item 12 Interiors.

Item 13 Continuous Coatings.

Item 14 Pavements.

Topic 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 them achieve the expected results includes the following activities:

Generic face-to-face activities:

- Theoretical classes: The theoretical concepts of the subject will be explained and 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 test.

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 assessment methodologies:

Overall assessment, with continuous monitoring: characterised by the obligation to carry out and pass the practical tests, and academic work proposed in the subject within the established deadlines, and to take a final written test.

Overall assessment, without continuous monitoring: characterised by not taking 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 as the test, which will be a compendium of the practices developed during the course and will be carried out on the basis of a proposal set out 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 evaluate the student's participation in the theoretical classes, the demonstration of the 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 evaluated.

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 evaluation 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 calls in the academic year.

Any student who does not pass the minimum requirements of the practical tests or academic work proposed in the subject, will automatically pass to the global assessment 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 assessment 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 term and will be based on a proposal statement on a real building.

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

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

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