

28623 - Structures III: Different Structures

Syllabus Information

Academic year: 2023/24

Subject: 28623 - Structures III: Different Structures

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

Degree: 422 - Bachelor's Degree in Building Engineering

ECTS: 6.0

Year: 3

Semester: First semester

Subject type: Compulsory

Module:

1. General information

No prior knowledge requirements, beyond those established by the Ministry of Education and Science for access to a university degree in Technical Architecture.

This subject is intended to provide the student with the knowledge of the design and dimensioning of waffle slabs, slabs, extension of knowledge in reinforced concrete structures, prefabricated structures, stair stringers, stairways, etc auxiliary formwork and stripping structures, masonry wall structures, mixed structures, timber structures, shoring and structural pathology in the field of building.

It is not possible to understand a technical architect without structural fundamentals that allow him to become familiar with the construction activity itself, to carry out tests, to understand and evaluate the results obtained for the correct execution of the project and the work

It is recommended to have passed Structures I and II.

2. Learning results

To pass this subject, the student must demonstrate the ability to design and dimension all types of structures within the field of building construction, enabling him/her to design and manage these structures.

3. Syllabus

The following contents are studied:

- WAFFLE SLAB STRUCTURES.
- SLAB FLOORS.
- STAIR STRINGERS.
- PREFABRICATED STRUCTURES.
- AUXILIARY FORMWORK STRUCTURES. DESENCOFRADOS.
- MASONRY WALL STRUCTURES.
- MIXED STRUCTURES. PILLARS AND BEAMS.
- WOODEN STRUCTURES.
- DIMENSIONING AND CALCULATION OF SHORING.
- STRUCTURAL PATHOLOGY.

4. Academic activities

Face-to-face activities:

A) Theoretical classes: Theoretical concepts of the subject will be explained and practical examples will be developed by teacher.

B) Tutorial Practices, classes of practical exercises: Students will develop examples and carry out practical problems or cases related to the theoretical concepts studied.

Tutored autonomous activities: These activities will be guided by the subject faculty.

They will be focused on the realization of works/projects, either individual or in small groups, as well as on the methodology the study method necessary or more convenient for the assimilation of each one of the aspects developed in each topic. The student will have the possibility to carry out these activities at the center, under the supervision of a teacher of the branch/department.

Reinforcement activities: Through a virtual teaching portal (Moodle) various activities will be conducted to reinforce the basic contents of the subject. These activities will be customized and controlled through this

5. Assessment system

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

Continuous assessment mode: Characterized by the obligation to take and pass the practical tests, midterm exams and academic work proposed in the subject, within the deadlines established for this purpose. In this case, the student does not have to take a final test.

In the continuous assessment model, the teacher will assess the student's participation in the theoretical classes, the demonstration of the acquired knowledge and the ability to solve problems

Indicated are the indicative weights of the parts cited in the assessment process.

Participation in theory classes, practical classes, assignments, projects 30%

Continuous assessment test 70%

Non-continuous assessment: Characterized by not taking or not passing the practical tests, midterm exams or academic papers proposed in the subject. In this case, the student must take a final test.

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 continuous assessment mode

Indicated are the indicative weights of the parts cited in the assessment process.

Final Examination 100%