

28623 - Structures III: Different Structures

Syllabus Information

Academic Year: 2020/21

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

1.1.Aims of the course

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

To become familiar with the work prior to the constructive activity itself, that is, to prescri

1.2.Context and importance of this course in the degree

The subject of Structures III, is part of the Degree in Technical Architecture taught by EUPLA

This subject provides additional useful training in the performance of technical architect fur

The need of the subject within the curriculum of the present degree is more than justified and

1.3.Recommendations to take this course

No requirements of previous knowledge, beyond those marked by the Ministry of Education and Sc

2.Learning goals

2.1.Competences

Upon passing the course, the student will be more qualified to ...

CE9 Ability to rule on the causes and manifestations of building injuries, propose solutions to avoid or correct pathologies, and analyze the life cycle of elements and construction systems.

CE15 Aptitude for the pre-dimensioning, design, calculation, verification and project of structures and to direct their material execution.

2.2.Learning goals

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

Organizational and planning skills.

Capacity to solve problems.

Ability to make decisions.

Aptitude for oral and written communication of the native language

Capacity for analysis and synthesis

Ability to manage information

Capacity for teamwork

Capacity for critical reasoning

Ability to work in an interdisciplinary team

Ability to work in an international context

Improvisation and adaptation capacity to face new situations

Leadership aptitude

Positive social attitude towards social and technological innovations

Ability to reason, discuss and present your own ideas

Ability to communicate through words and images

Ability to search, analyze and select information

Capacity for independent learning.

Possess and understand knowledge in an area of ??study that starts from the general secondary

Apply their knowledge to their job or vocation in a professional way and possess the competenc

Ability to collect and interpret relevant data (usually within their area of ??study) to make

Transmit information, ideas, problems and solutions to a specialized and non-specialized audie

Develop those learning skills necessary to undertake further studies with a high degree of aut

2.3.Importance of learning goals

Through the achievement of the relevant learning results, the necessary capacity is obtained t
Later it will be expanded in the subject of Structures IV.

3.Assessment (1st and 2nd call)

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

The student must demonstrate that they have achieved the expected learning outcomes through the following assessment activities:

Continuous assessment

Throughout the course there will be several mandatory exercises. Its value is 30% of the total course. The teacher will propose the practical exercises, which the students must do during the determined time. Students will deliver the practice on the date scheduled for their evaluation. Once delivered, the practice will be resolved in class.

The continuous assessment will be completed with a theoretical-practical test whose value is 70% of the total of the course.

Students whose average mark is equal to or greater than 5.0 points will pass the course in continuous assessment.

It will also be necessary to have attended 80% of the face-to-face activities.

Final assessment

Students who do not pass the course in continuous assessment will have to take a theoretical-practical final test, which will be scored from 0 to 10 and it will be necessary to obtain a minimum score of 5 points to pass the course.

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as theory sessions, practice sessions, workshops, tutorials, and autonomous work and study.

A strong interaction between the teacher and the student is promoted. This interaction is brought into being through a division of work and responsibilities between the students and the teacher. Nevertheless, it must be taken into account that, to a certain degree, students can set their learning pace based on their own needs and availability, following the guidelines set by the teacher.

4.2.Learning tasks

This course is organized as follows:

- **Theory sessions:** The theoretical concepts of the subject are explained and illustrative examples are developed as a support to the theory when necessary.
- **Practical sessions:** Problems and practical cases are carried out, complementary to the theoretical concepts studied.
- **Workshops:** This work is tutored by a teacher, in groups of no more than 20 students.
- **Autonomous work and study.**
 - Study and understanding of the theory taught in the lectures.
 - Understanding and assimilation of the problems and practical cases solved in the practical classes.
 - Preparation of seminars, solutions to proposed problems, etc.
 - Preparation of laboratory workshops, preparation of summaries and reports.
 - Preparation of the written tests for continuous assessment and final exams.

4.3.Syllabus

This course will address the following topics:

1	INTRODUCTION TO THE MATRIX CALCULATION
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2	STRUCTURES FORGED RETICULATED.				
3	FORGED OF SLABS.				
4	STAIRS.				
5	STRUCTURES PREFABRICATED.				
6	AUXILIARY STRUCTURES				
7	STRUCTURES OF WALLS OF FACTORIES.				
8	STRUCTURES OF WALLS OF FACTORIES				
	Name	Start	Deadline	Resolution	Grades
9	Practice 1	MIXED STRUCTURES 3 week	4 week	4 week	5 week
10	Practice 2	MIXED STRUCTURES 7 week	8 week	8 week	9 week
11	Practice 3	STRUCTURES OF WOOD 12 week	13 week	13 week	14 week
12	(1st call)	STRUCTURES OF WOOD.			
13	(2nd call)	SURVEYS.			
14	SURVEYS.				
15	STRUCTURAL PATHOLOGY.				

4.4.Course planning and calendar

The course has 6 ECTS credits, which represents 150 hours of student work in the course during the trimester, in other words, 10 hours per week for 15 weeks of class. This includes 3 hours of lectures, 1 of workshops and 6 of other activities.

Calendar of evaluation.

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.

4.5.Bibliography and recommended resources

http://biblos.unizar.es/br/br_citas.php?