

28631 - Structures IV: Geotechnics and Foundations

Syllabus Information

Academic Year: 2019/20

Subject: 28631 - Structures IV: Geotechnics and Foundations

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

Degree: 422 - Bachelor's Degree in Building Engineering

ECTS: 6.0

Year: 4

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 presc

1.2.Context and importance of this course in the degree

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

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

1.3.Recommendations to take this course

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

It is useful to have completed the subjects of Structures I and Structures II.

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

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

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, autonomous work and study, and tutorials.

A strong interaction between the teacher/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 6 ECTS course is organized as follows:

- **Theory sessions:** The theoretical concepts of the subject are explained and illustrative examples are developed as support to the theory when necessary.
- **Practical sessions:** Problems and practical cases are carried out, complementary to the theoretical concepts studied.
- **Laboratory Workshop:** 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

Topic 1	GEOTECHNICAL STUDY
Topic 2	RECOGNITION OF THE AREA
Topic 3	PROPERTIES OF THE SOILS
Topic 4	TENSIONS AND CAPACITY
Topic 5	WALLS OF CONTAINMENT
Topic 6	WALLS OF BASEMENT AND SCREENS
Topic 7	SUPERFICIAL FOUNDATIONS
Topic 8	SLABS OF FOUNDATION
Topic 9	PILES
Topic 10	PATHOLOGY OF THE FOUNDATIONS

4.4.Course planning and calendar

The subject has 6 ECTS credits, which represents 150 hours of student work in the subject 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.

Name	Start	Deadline	Resolution	Grades
Practice 1	3 week	4 week	4 week	5 week
Practice 2	7 week	8 week	8 week	9 week
Practice 3	12 week	13 week	13 week	14 week
(1st call)				
(2nd call)				

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?codigo=28631&year=2019

