

# **SUBJECT DESCRIPTION**

**MODELO** 

PED.013.03

Course	Bachelor in Civil Engineering					
Subject	Applied Project					
Academic year	2023/2024	Curricular year	3rd	Study period	2nd	
Type of subject	Complusory	Student workload (H)	Total: 252	Contact: 120	ECTS	9
Professor(s)	PhD José Carlos Costa de Almeida Expert Manuel António Sobral Campos Jacinto Expert Nuno Álvaro Freire Melo PhD Sónia Hortênsia Moreira Marques					
<ul><li>☑ Area/Group Coordinator</li><li>☐ Head of Department</li></ul>		PhD José Carlos Costa de Almeida				

# PLANNED SUBJECT DESCRIPTION

# 1. LEARNING OBJECTIVES

It is intended that students develop technical and professional skills subjecting them to hypothetical situations of actual exercise of the profession of a designer or several areas of civil engineering, acquiring skills in conception development and applied design solutions.

#### 2. PROGRAMME

- i. INTRODUCTION TO THE CIVIL ENGINEERING DESIGN
- ii. GEOTECHNICAL DESIGN
- iii. STRUCTURAL DESIGN
- iv. FACILITY ENGINEERING DESIGN
- v. ROAD DESIGN
- vi. URBAN HYDRAULIC SYSTEMS DESIGN

# 3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

The unit has become essentially practical. During teaching of the subject students will be confronted with the necessity of applying the acquired knowledge to solve practical situations in the field of design, simulate performance conditions of future employment.

# 4. MAIN BIBLIOGRAPHY

Several texts to support the subject.

Graphics and writings supporting the subjects taught or elements of the present project, provided by all teachers.



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# 5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

There will be 5 workshops in each of the modules in UC lectured, so that students apply knowledge gained in developing the project in several aspects of civil engineering.

Assessment of practical work at final examination. The final rating will correspond to the weighted average depending on the workload of each module.

- GEOTECHNICAL DESIGN (1,0h/sem Weight 1,0)
- FACILITY ENGINEERING DESIGN (1,5h/sem Weight 1,5)
- ROAD DESIGN (1,5h/sem Weight 1,5)
- URBAN HYDRAULIC SYSTEMS DESIGN (2,0h/sem Weight 2,0)
- STRUCTURAL DESIGN (2,0h/sem Weight 2,0)

Students will necessarily have to pass all modules.

In case of an inadequate classification, in any module, students should reformulate the practical work and submit it at the time of appeal. The students may also perform classification improvement in any of the modules.

#### 6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

UC operates on a modular system where the curriculum will be introduced in 5 fields of Civil Engineering – Geotechnical, Structural, Facilities engineering, Roads, and Hydraulic networks. In each module students will apply the knowledge acquired during their academic training to the development of a project implemented based on design methodologies contained in the Eurocodes and specialized software.

#### 7. ATTENDANCE

There is no attendance regime.

#### 8. CONTACTS AND OFFICE HOURS

As the teaching takes place in modules, the office hours are defined by each teacher.

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# 9. OTHERS

N/A

# DATE

19 de fevereiro de 2024

# **SIGNATURES**

Professor(s), Area/Group Coordinator or Head of Department signatures

Professor
(signature)
Area/Group Coordinator
(signature)