

## SUBJECT TEACHING GUIDE

### G1148 - CONSTRUCTIONS

#### Degree in Civil Engineering

Academic year 2021-2022

1. IDENTIFYING DATA					
Degree	Degree in Civil Engineering			Type and Year	Optional. Year 3
Faculty	School of civil Engineering				
Discipline	Subject Area: Building				
Course unit title and code	G1148 - CONSTRUCTIONS				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERIA ESTRUCTURAL Y MECANICA
Name of lecturer	IGNACIO LOMBILLO VOZMEDIANO
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Other lecturers	YOSBEL BOFFILL ORAMA HAYDEE BLANCO WONG

### 3.1 LEARNING OUTCOMES

- Know and understand the Law 38/1999 of "Ordenación de la Edificación".
- Know and understand part of the regulations contained in the "Código Técnico de la Edificación" (CTE).
- Know and understand the functions and parts of the building.
- Ability to address the project, direction, construction, inspection and maintenance of buildings.
- Understand, from a technical point of view, the structural solutions that more regularly are used in the design and construction of buildings: foundations, retaining and basement walls, (one-way and reticular) slabs, load bearing walls and framework structures.
- Know the most significant aspects of the physical protection of buildings (thermal and acoustic aspects).
- Understand, from a technical point of view, the solutions of roofs and facades which more regularly are used in the design and construction of buildings.
- Understand, from a technical point of view, the basic design of the building facilities: hydraulic, electrical and heating facilities.

### 4. OBJECTIVES

- Knowledge the regulations of the Law of "Ordenación de la Edificación" and "Código Técnico de la Edificación" and other complementary ("Normas Tecnológicas de la Edificación").
- Knowledge of the types and characteristics of the structures, facilities, envelopes and finishes that are regularly used in the project and the construction of buildings.
- Knowledge of terminology and associated concepts from the field of construction.
- Knowledge of the physical and mechanical bases that govern the behavior of buildings.
- Knowledge of the construction details of the different elements that constitute the buildings and their graphical representation .

### 6. COURSE ORGANIZATION

CONTENTS	
1	INTRODUCTION: Concept and importance. Functions and parts of the building. Law of "Ordenación de la Edificación" (LOE). "Código Técnico de la Edificación".
2	Building Structures I: Actions. Foundations. Retaining and basement walls.
3	Building Structures II: Load bearing walls (masonry structures and concrete solutions).
4	Building Structures III: Framework structures (in situ and precast concrete, steel structures, and timber structures).
5	Building Structures IV: One-way and reticular slabs.
6	Building facilities I: Hydraulic facilities.
7	Building facilities II: Electrical facilities and heating. Fire safety (CTE DB-SI). Others.
8	Envelopes and finishings I: Introduction. Thermal (CTE DB-HE0 and CTE DB-HE1), acoustic (CTE DB-HR) and moisture protection (CTE DB-HS1).
9	Envelopes and finishings II: Roofs.
10	Envelopes and finishings III: Facades, partition walls, and finishings.

## 7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Written exam (thematic bloques 1-5)	Written exam	No	Yes	45,00
Written exam (thematic bloques 6-10)	Written exam	No	Yes	35,00
Group work (thematic bloques 6-10)	Work	No	No	10,00
Class attendance	Others	No	No	10,00
<b>TOTAL</b>				<b>100,00</b>
<b>Observations</b>				
<p>In the case of part-time course students, the evaluation consists on: - Written exam (thematic bloques 1-5): 50% - Written exam (thematic bloques 6-10): 50%</p> <p>In addition to the extraordinary exam on September, a recovery exam will be held on the date of the final exam.</p>				
<b>Observations for part-time students</b>				
<p>In the case of part-time course students, the evaluation consists on:</p> <p>- Written exam (thematic bloques 1-5): 50% - Written exam (thematic bloques 6-10): 50%</p> <p>In addition to the extraordinary exam on September, a recovery exam will be held on the date of the final exam.</p>				

## 8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC
<p>L. Villegas, I. Lombillo (2013). "EDIFICACIÓN: Apuntes Docentes". Grupo de Tecnología de la Edificación de la Universidad de Cantabria, Departamento de Ingeniería Estructural y Mecánica, E.T.S. de Ingenieros de Caminos, Canales y Puertos de Santander.</p> <p>LOE. Ley 38/199 de Ordenación de la Edificación.</p> <p>CTE. Real Decreto 314/2006. Código Técnico de la Edificación.</p>