

SUBJECT TEACHING GUIDE

G1180 - Further Structures Technology

Degree in Civil Engineering

Academic year 2021-2022

1. IDENTIFYING DATA					
Degree	Degree in Civil Engineering			Type and Year	Optional. Year 4
Faculty	School of civil Engineering				
Discipline	Optional Subjects: Open to all Itineraries				
Course unit title and code	G1180 - Further Structures Technology				
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	ARTURO JOSE SANTAMARIA SALLAN				
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Office	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 2. DESPACHO (2064)				
Other lecturers	CLAUDIO LOPEZ CASTILLO OSCAR RAMON RAMOS GUTIERREZ				

3.1 LEARNING OUTCOMES

- To analysis and design structural elements of steel and concrete.

4. OBJECTIVES

The student will acquire sufficient competence in the field of the design and construction of prestressed concrete and composite steel and concrete structures

6. COURSE ORGANIZATION

CONTENTS	
1	Steel structures. Plastic analysis
2	Steel structures. Torsion.
3	Joints. Structural bearings
4	Residential and industrial building design
5	Strut and tie models
6	Creep and shrinkage of concrete. Structural effects
7	Prestressed concrete.
8	Structural elements of prestressed concrete
9	Composite steel and concrete structures

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Midterm exam (Parts 1 a 4)	Written exam	No	Yes	50,00
Final exam (Parts 5 a 9)	Written exam	Yes	Yes	50,00
TOTAL				100,00
Observations				
Observations for part-time students				
The assessment will be the same as that of full-time students.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC
Estructuras de acero. Vol II. Argüelles Alvarez et. al. Bellisco Ediciones ISBN: 84-95279-15-0
Hormigón pretensado. Lacroix R. Editores Técnicos Asociados. ISBN: 84-7146-099-8
Construcción mixta hormigón-acero. Ortiz Herrera J. y Martínez Calzón J. Ed. Rueda. ISBN: 84-7207-010-7