

## SUBJECT TEACHING GUIDE

G1155 - Advances in Building 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: Curricular Itinerary 1				
Course unit title and code	G1155 - Advances in Building Technology				
Number of ECTS credits allocated	6	Term	Semester based (2)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS				
Name of lecturer	PABLO PASCUAL MUÑOZ				
E-mail	pablo.pascualm@unican.es				
Office	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 1. DESPACHO PABLO PASCUAL MUÑOZ (1012)				
Other lecturers	JOKIN RICO ARENAL LAURA CASTAÑON JANO CHRISTIAN BAIER				

### 3.1 LEARNING OUTCOMES

- Acquisition of knowledge about latest trends in machinery, equipment, plants and procedures for the construction of civil infrastructure.
- Acknowledgment of the importance of incorporating innovative construction machinery and procedures, as well as the work that it takes.
- Ability to incorporate technology innovations into the construction process.

#### 4. OBJECTIVES

Provide the students the specific academic training that helps them to enter the working life in the field of the construction engineering.

Provide the student the latest advances within the technology for public works construction.

Initiate the students into basic concepts about research, development and innovation in Construction Engineering.

#### 6. COURSE ORGANIZATION

##### CONTENTS

1	BLOCK 1. ADVANCED CONSTRUCTION TECHNOLOGY: Geotextiles and geosynthetics in construction, flexible systems for slope stabilization, instrumentation and monitoring of infrastructures.
2	BLOCK 2. NEW TECHNIQUES AND PROCEDURES IN CONSTRUCTION: automation and digital transformation, new technologies for the construction of infrastructures.
3	BLOCK 3. CONSTRUCTION OF ENERGY INFRASTRUCTURES: geothermal energy and active infrastructures, onshore and offshore wind energy and characteristics of power plants construction .

#### 7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Written reports. At the end of each practical class.	Work	No	Yes	65,00
Development and oral presentation of a group work. At the end of the term.	Work	No	No	25,00
Active participation in class.	Others	No	No	10,00
TOTAL				100,00

##### Observations

##### Observations for part-time students

Part-time students are exempt from the requisite of having to compulsory attend the practical classes. In this case, the assessment will be carried out by means of an assignment (written report) whose contents and deadline will be set by the professor at the beginning of the course.

#### 8. BIBLIOGRAPHY AND TEACHING MATERIALS

##### BASIC

Apuntes de la asignatura.