

SUBJECT TEACHING GUIDE

M1829 - Pathology and rehabilitation of built heritage

Master's Degree in Historical and Territorial Heritage

Academic year 2022-2023

1. IDENTIFYING DATA					
Degree	Master's Degree in Historical and Territorial Heritage		Type and Year	Optional. Year 1	
Faculty	Faculty of Humanities				
Discipline					
Course unit title and code	M1829 - Pathology and rehabilitation of built heritage				
Number of ECTS credits allocated	3	Term	Semester based (2)		
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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Office	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 2. ALUMNOS DOCTORADO (2068)			
Other lecturers				

3.1 LEARNING OUTCOMES

- Knowledge related to the traditional buildings rehabilitation and their pathological processes.
- Methodology of investigation of pathological processes.
- Identification of the main defects that the traditional constructive elements present.
- Identification of the defects' causes: Mistakes in the project, in the construction process, usage of inappropriate materials, incorrect use of the building and/or lack of maintenance.
- Rehabilitation solutions.

4. OBJECTIVES

- Learn about traditional buildings rehabilitation and their pathological processes.
- Know the methodology of investigation in this field of knowledge.
- Provide knowledge related to the main tests used in this field of knowledge (non and minor destructive tests, monitoring, etc.).
- Acquire ideas related to the main defects existing in traditional buildings and making possible that the student may plan, with coherence, therapeutical solutions focused on the main problems detected.

6. COURSE ORGANIZATION

CONTENTS

1	General concepts: Building pathology and rehabilitation. General methodology of investigation.
2	Diagnosis of existing buildings: On-site inspection. Laboratory testing. Constructions monitoring. Examples of preliminary studies to rehabilitation, and pathology reports.
3	Rehabilitation of historical buildings: Foundations. Masonry structures (load bearing walls). Examples of studies conducted on buildings.
4	Rehabilitation of modern buildings: Concrete structures.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Class attendance	Others	No	No	30,00
Written exam	Written exam	Yes	Yes	35,00
Group work	Work	No	Yes	35,00
TOTAL				100,00

Observations

In cases of private home confinement of students, for duly justified reasons (e.g. health restrictions), the activities may be organised remotely.

In the event that the face-to-face activity is suspended (due to health restrictions), the evaluation will be carried out in the following way:

- Class attendance will be verified by means of the monitoring of the classes given by telematic platform (Teams or similar).
- The written exam will be a test and will be carried out using the Moodle tool.
- The Group Work will be sent by email, in digital format, and its oral presentation will be carried out by telematic platform (Teams or similar).

Observations for part-time students

In the case of part-time course students, the evaluation consists on a written exam.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

- Apuntes de las clases de esta Asignatura.
- Libros de Rehabilitación de G. Lozano. Asturias, 2005.
- Manual para la redacción de informes técnicos en construcción- J. Calavera. Intemac 2009.
- Patología de estructuras de hormigón - J,. Calavera. Intemac, 2009.
- Patología del Hormigón. - M. Fernández Canovas, 2001.

