

28637 - Monument Restoration

Información del Plan Docente

Academic Year	2016/17
Academic center	175 - Escuela Universitaria Politécnica de La Almunia
Degree	422 - Bachelor's Degree in Building Engineering
ECTS	5.0
Course	3
Period	Second semester
Subject Type	Optional
Module	---

1. Basic info

1.1. Recommendations to take this course

1.2. Activities and key dates for the course

2. Initiation

2.1. Learning outcomes that define the subject

2.2. Introduction

3. Context and competences

3.1. Goals

3.2. Context and meaning of the subject in the degree

3.3. Competences

3.4. Importance of learning outcomes

4. Evaluation

5. Activities and resources

5.1. General methodological presentation

The learning process designed for this subject is based on the following:

Strong interaction between the teacher/student. This interaction is brought into being through a division of work and responsibilities between the students and the teacher. Nevertheless, it must be taken into account that, to a certain degree, students can set their learning pace based on their own needs and availability, following the guidelines set by the teacher.

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For the learning process, the student will have the basic contents available through lectures given by the teacher. These contents will give rise to both the questions considered in the practical sessions, as the work that students must develop autonomously, always tutored by the teacher.

5.2.Learning activities

Involves the active participation of the student, in a way that the results achieved in the learning process are developed, not taking away from those already set out, the activities are the following:

— Face-to-face generic activities:

● Theory Classes: Theoretical activities carried out mainly through exposition by the teacher, where the theoretical supports of the subject are displayed, highlighting the fundamental, structuring them in topics and or sections, interrelating them. It is mainly used the method of the lecture, supported by the projection of audiovisual presentations, including numerous images and videos. The student is provided, through the educational platform Moodle, both the notes prepared by the teacher to support lessons and recommended bibliography.

● Practical Classes: The weight of these classes is shared between teacher and students. The teacher resolves practical cases for demonstrative purposes. This type of teaching complements the theory shown in the lectures with practical aspects. Specifically, some of the classes can be taught by guest teachers or technicians skilled in the matter that is being developed at that time.

● Field practical classes and conferences: It is very useful for learning visits to historic buildings being restored or refurbished, accompanied by the technicians responsible for its management and execution to visualize the constructive solutions used in construction and face the real problems. Also it is contemplated within this type of activity attending conferences related to the subject, given both some of the headquarters of the University of Zaragoza and in other centers, which will be duly announced to the students by the teacher.

— Individual Tutorials: Those carried out giving individual, personalized attention with a teacher from the department. Said tutorials may be in person (department) or online (Moodle or mail).

— Generic non-class activities:

● Study and understanding of the theory taught in the lectures.

● Understanding and assimilation of the problems and practical cases solved in the practical classes.

● Preparation of seminars, solutions to proposed practices, etc.

● Preparation of the continuous assessment activities and final exams.

— Reinforcement activities: activities that reinforce the basic matter of the subject are directed from Moodle. The monitoring of these activities is carried out in a personalized way. This kind of activities provides the teacher evaluation of attitude, effort and performance of student learning.

The combination of these learning activities is considered essential for students to be able to achieve the objectives.

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Thus, after an initial theoretical dive, the students will be instructed in solving practical problems associated to complete their understanding of the subject and eventually they will be placed facing a problem to be addressed independently without the direct participation of teacher who, however, will exercise his role of counselor in learning.

The subject has 5 ECTS credits, which represents 125 hours of student work in the subject during the semester.

5.3.Program

T.01. INTRODUCTION

VOCABULARY AND BASIC CONCEPTS

LEGISLATION

T.02. HISTORY OF RESTORATION: THE FOUNDATIONS OF CONTEMPORARY THEORY

T.03. RESTORATION IN THE CURRENT TIME IN SPAIN

T.04. RESTORATION PROJECT

PREVIOUS STUDIES

Historical research

Architectural-constructive survey: traditional techniques and new technologies (photogrammetry and laser scanner)

Material degradation Study

Structural damage Study

Stratigraphy

CRITERIA AND PROJECT DECISIONS. INTERVENTION TECHNIQUES

Practices:

- In class:

P0. Vocabulary

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P1. Law 16/1985

P2. Law 3/1999

P3. Restoration theories: Stern and Valadier, Ruskin and Viollet-le-Duc

P4. Restoration theories: Beltrami and Boito

P5. Restoration theories: Torres Balbas

- Autonomous:

Group practice: historical-critical analysis of an intervention of restoration

Individual practice: Preliminary study of a historic building facade

5.4.Planning and scheduling

Schedule sessions and presentation of works

Week	Content
1	Introduction. T.01. Vocabulary and basic concepts (theory and practice 0)
2	T.01. Legislation (theory)
3	T.01. Legislation (practice 1 and 2)
4	T.02. History of restoration (theory and practice 3)
5	T.02. History of restoration (theory and practice 4)
6	T.03. Current restoration in Spain (theory and practice 5)
7	Practical visit
8	T.04. The restoration project. Introduction

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	(theory)
9	T.04. Architectural survey (theory and practice 6)
10	T.04. Architectural survey: new technologies
11	T.04. Material degradation study (theory)
12	T.04. Structural damage study (theory)
13	T.04. Intervention techniques (theory)
14	Presentation of case studies (restoration projects)
15	Introducing group practices

5.5. Bibliography and recommended resources

- Diccionario de arquitectura y construcción / M^a Soledad Camino Olea ... [et al.] Madrid : Munilla-Lería, 2001
- Teoría e historia de la restauración / Antonio Fernández Alba ... [et al.] Madrid : Munilla-Lería, D.L. 1997
- Tratado de rehabilitación. Tomo 1, Teoría e historia de la rehabilitación / [autores de este tomo, Josep M^a Adell Argilés ... et al. ; director Juan Monjo Carrió] Madrid : Munilla-Lería, D.L. 1999
- Tratado de rehabilitación. Tomo 2, Metodología de la restauración y de la rehabilitación / [autores Ignacio Arce ... et al. ; director Juan Monjo Carrió] Madrid : Munilla-Lería, 1999
- Tratado de rehabilitación. Tomo 3, Patología y técnicas de intervención : elementos estructurales / [autores Andrés Abasolo ... et al. ; director Juan Monjo Carrió] Madrid : Munilla-Lería, 2008
- Tratado de rehabilitación. Tomo 4, Patología y técnicas de intervención : fachadas y cubiertas / [autores Josep M^a Adell Argilés ... et al. ; director Juan Monjo Carrió] Madrid : Munilla-Lería, D.L. 1999
- Diccionario técnico Akal de conservación y restauración de bienes culturales : [español-alemán-inglés-italiano-francés] / Lourdes Rico Martínez y Celia Martínez Cabetas (coords.) Madrid : Akal, D.L. 2003
- Calvo Manuel, Ana. Conservación y restauración : materiales, técnicas y procedimientos : de la A a la Z / Ana Calvo . - 1a. ed. Barcelona : Ediciones del Serbal, 1997
- García de Miguel, José María. Tratamiento y conservación de la piedra, el ladrillo y los morteros en monumentos y construcciones / José María García de Miguel Madrid : Cyan, 2009
- González-Varas Ibáñez, Ignacio. Conservación de bienes culturales : teoría, historia, principios y normas / Ignacio González-Varas Madrid : Cátedra, D.L. 1999
- Benedicto Salas, Roberto. De las sustituciones de cubiertas en las iglesias del patrimonio monumental / Roberto Benedicto Salas Zaragoza : Institución Fernando El Católico, 2012
- Fernández, Juan Antonio. Patrimonio de la humanidad en España [Texto impreso] / texto y fotos, Juan Antonio Fernández Durán. - 1ª edición Madrid : América Ibérica : IndesMedia, [1997]
- González-Varas Ibáñez, Ignacio. La restauración monumental en España durante el siglo XIX / Ignacio González-Varas Ibáñez Valladolid : Ámbito, 1996
- Muñoz Cosme, Alfonso. La conservación del patrimonio arquitectónico español / Alfonso Muñoz Cosme . - [1a. ed.] Madrid : Dirección General de Bellas Artes y Archivos, 1989
- Ruskin, John. Las siete lámparas de la arquitectura / John Ruskin ; [traducida por Carmen de Burgos] . - 4ª ed. (renovada) Barcelona : Alta Fulla, 2000

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- Selección, evaluación y desarrollo de los recursos humanos / Amparo Osca Segovia, editora. Madrid : Sanz Torres, 2006.