

## 28637 - Monument Restoration

### Syllabus Information

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**Academic Year:** 2019/20

**Subject:** 28637 - Monument Restoration

**Faculty / School:** 175 - Escuela Universitaria Politécnica de La Almunia

**Degree:** 422 - Bachelor's Degree in Building Engineering

**ECTS:** 5.0

**Year:** 3

**Semester:** Second semester

**Subject Type:** Optional

**Module:** ---

## 1.General information

### 1.1.Aims of the course

#### Scientific aims:

To stimulate the interest of the student for the conservation of the architectural heritage through the study of the theory and history of the restoration as well as the most usual intervention techniques.

The correct knowledge and use of the specific terminology of the field of restoration and intervention techniques, as well as their differences.

Introduce the student in legislation, letters and international agreements on intervention on Architectural Heritage.

Introduce the student in the theories and techniques of intervention in heritage to develop and enhance the ability to decide conservation operations of historical buildings.

Teach the student to detect, analyze and decide intervention techniques on the different pathologies that can affect the materials and constructive systems present in a historical construction.

#### Professional aims:

Establish first contacts with the professional world of which he is going to be part and especially in the field of restoration, conservation and architectural rehabilitation, enhancing the capacity to project and direct conservation operations of historical buildings.

Start in the study of the theory and history of architectural restoration and learn about the latest trends in intervention on Architectural Heritage.

Be initiated in the knowledge of legislation, both state and regional, and international letters and agreements on Architectural Heritage, as well as in the maintenance of buildings.

Be initiated in the study and recognition of the pathologies of historical constructions, through their knowledge, and intervention techniques.

#### Specific aims of the degree:

Prepare technical projects and perform the direction of material execution of the restoration, rehabilitation and maintenance of buildings in the scope of their legal authorization.

Manage new building technologies in the field of restoration, rehabilitation and maintenance of buildings and participate in quality management processes.

Direct and manage the use, conservation and maintenance of the buildings, writing the necessary technical documents.

Advise technically in the manufacturing processes of materials and elements used in restoration works, rehabilitation and maintenance of buildings.

Teach in the disciplines corresponding to their academic training, in the terms established in the law.

Develop functions in Public Administrations in the field of regulations and management.

### 1.2.Context and importance of this course in the degree

Monument Restoration is an optional subject that is taught in the Second Semester of the third year of the Bachelor's Degree in Building Engineering, with a teaching load of 5 ECTS credits.

It is part of the subject of Building, Maintenance and Architectural Constructions, within the module called Building Technologies and Technologies.

This subject is important in the correct formation of a Building Engineer. The contents and knowledge imparted expose the student to the criteria and techniques of intervention on the heritage buildings.

### 1.3.Recommendations to take this course

Sufficient prior knowledge about Building History, Materials and Construction

## 2.Learning goals

### 2.1.Competences

### 2.2.Learning goals

### 2.3.Importance of learning goals

## 3.Assessment (1st and 2nd call)

### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

## 4.Methodology, learning tasks, syllabus and resources

### 4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, practice sessions, fieldwork, conferences, tutorials, visits, and autonomous work and study.

A strong teacher/student interaction is promoted. This interaction becomes a reality through a division of work and responsibilities between the students and the teacher.

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 practice sessions and the work that students must develop autonomously, always monitored by the teacher.

### 4.2.Learning tasks

This 5 ECTS (125 hours) course is organized as follows:

- **Lectures:** Theoretical activities carried out mainly through explanation by the teacher, where the theory contents of the course are given, highlighting the basics, structuring them into topics and/or sections, interrelating them. The lecture is supported by the projection of audio visual presentations, including different images and videos. The student, through the educational platform Moodle, is provided with both the notes prepared by the teacher to support lessons and the recommended bibliography.
- **Practice sessions:** The weight of these classes are shared between teacher and students. The teacher solves practical cases for teaching purposes. This type of teaching complements the theory shown in the lectures with practical aspects. At times these lessons will be given by guest lecturers or experts in the field being dealt with at the time.
- **Fieldwork, visits and conferences:** Visits to historical buildings in the process of renovation or renovated are particularly useful, accompanied by the experts in charge of their management, to visualize the constructive solutions used and deal with real problems. The attendance to courses or conferences related to the course is also considered, in both the University of Zaragoza and other institutions.
- **Tutorials:** Tutorials will be carried out giving individual, personalized attention with a teacher from the department. They may be online or through Moodle/email.
- **Autonomous work and study**
  - Study and understanding of the theory taught in the lectures.
  - Understanding and assimilation of the cases solved in the practical classes.
  - Preparation of solutions to proposed practice tasks, etc.
  - Preparation of the written tests.
  - Reinforcement activities: Activities that reinforce the basics of the course are assigned from Moodle. The monitoring of these activities is carried out in a personalized way. This kind of activities provides the teacher with attitude, effort and performance evaluation of the student learning.

### 4.3.Syllabus

This course will address the following topics:

#### 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
- Material degradation Study
- Structural damage Study
- Stratigraphy
- CRITERIA AND PROJECT DECISIONS. INTERVENTION TECHNIQUES

### 4.4.Course planning and calendar

#### Schedule sessions

Week	Content
1	Introduction. T.01. Vocabulary and basic concepts
2	T.01. Legislation
3	T.01. Legislation
4	T.02. History of restoration
5	T.02. History of restoration
6	T.03. Current restoration in Spain
7	Practical visit
8	T.04. The restoration project. Introduction
9	T.04. Architectural survey
10	T.04. Architectural survey: new technologies
11	T.04. Material degradation study
12	T.04. Structural damage study
13	T.04. Intervention techniques
14	Presentation of case studies
15	Introducing group practices

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of EUPLA website and Moodle.

### 4.5.Bibliography and recommended resources

[http://biblos.unizar.es/br/br\\_citas.php?codigo=28637&year=2019](http://biblos.unizar.es/br/br_citas.php?codigo=28637&year=2019)