

30748 - Architecture and Sustainability

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	470 - Bachelor's Degree in Architecture Studies
ECTS	6.0
Course	5
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 course consists of a theoretical part in which knowledge about techniques for a more sustainable architecture is introduced.

In parallel, practical activities are devoted to the development of a project that consists of checking the energy demand of a building and generating its energy certification by means of official software. The exercises are performed individually during the semester and are supervised during the course, thus allowing a continuous evaluation.

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5.2.Learning activities

The program that students are offered to help them achieve the expected results includes

Total hours of student work: 150 hours (6 ECTS)

Theoretical credits: 75 hours (3 ECTS)

Practical credits: 75 hours (3 ECTS)

Classroom activities

1. Theoretical and problems resolution classes (large group).
2. Practical classes (intermediate group).
 - Case study discussions.
 - Tutorial sessions.
3. Visits to on-site building constructions, buildings or conferences.
4. Scheduled tutoring.
5. Written test

Distance activities

6. Studying and individual work.
7. Performing tasks and projects individually and/or in small groups.

5.3.Program

Sustainability in Architecture:

- Architecture and sustainability throughout history
- Passive house standard and sustainability certifications (VERDE, Hades , Perfil de Calidad, etc.) .
- Examples of sustainable buildings.

Sustainable use of natural resources

- Sustainable management of materials and waste.
- Efficiency in water consumption.

Energy saving

- Limitation of energy demand of the building
- Energy efficiency in facilities
- Integration of renewable energy
- Energy certification

5.4.Planning and scheduling

Theoretical classes of 2 hours per week according to the School schedule.

Practical classes of 2 hours per week according to the School schedule.

The course assignments will have partial pre-delivery and final delivery dates that will be defined at the beginning of the course.

The date of the theoretical test will be included in the School exams calendar.

5.5. Bibliography and recommended resources