Universidad Zaragoza

Year : 2019/20

30748 - Architecture and Sustainability

Syllabus Information

Academic Year: 2019/20
Subject: 30748 - Architecture and Sustainability
Faculty / School: 110 -

Degree: 470 - Bachelor's Degree in Architecture Studies

ECTS: 6.0
Year: 5
Semester: Second semester
Subject Type: Optional
Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

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 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.

4.2.Learning tasks

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.

4.3.Syllabus

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

4.4.Course planning and calendar

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.

4.5.Bibliography and recommended resources