

30711 - Construction 1

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	2
Period	First semester
Subject Type	Compulsory
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 course is based on the following:

The course consists of a theoretical part in which the evolution of knowledge about historical and current construction and structural building solutions are introduced .

In parallel, practical activities are devoted to the analysis of structural solutions in leading architectural references of residential buildings . The exercises are performed in groups of 3-4 students during the semester and are supervised during the course, thus allowing a continuous evaluation .

Complementarily on site works visits and practical exercises are done in class .

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

- Introduction to building in Architecture: basic terminology, types of buildings and construction, construction elements of buildings and their functions.

- Introduction to the construction of structural elements: structure and project, construction of structural elements throughout the history.

- Soils and Foundation: field survey, earthwork, footings, slabs, piles, retaining walls.

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- Pillars and slabs: one-way slabs, waffle slabs, solid slabs, and other types of floor structures. Reinforced concrete and metal pillars.
- Masonry walls: brick , thermal clay blocks, concrete blocks.
- Vertical Communications: stairs and elevators.

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 recomended resources