

## 29753 - Industrial building

### Syllabus Information

**Academic year:** 2023/24

**Subject:** 29753 - Industrial building

**Faculty / School:** 110 - Escuela de Ingeniería y Arquitectura

**Degree:** 434 - Bachelor's Degree in Mechanical Engineering

**ECTS:** 6.0

**Year:** 4

**Semester:** First semester

**Subject type:** Optional

**Module:**

### 1. General information

The subject enables the learning of general aspects related to industrial building, both in relation to the characteristics of buildings and industrial plots, as well as in relation to the requirements and needs to be considered in their design and construction, depending on their manufacturing conditions.

The subject is the only possibility within the optional training module of the degree to become familiar with aspects related to industrial building. Thus, it is proposed as an initial and self-contained approach to the field of industrial building, useful for the future professional.

The objectives of the course are aligned with the following Sustainable Development Goals (SDGs) of the Agenda 2030 of United Nations: Goal 9: Industry, innovation and infrastructure (9.1 and 9.2).

### 2. Learning results

To know the principles of construction technology and the regulations governing it.

Identify the materials and elements used in prefabricated industrial buildings, their properties and applications.

To know and understand the operation of different types of structures and their adaptation to the industrial and functional implementation of the industry to be implemented.

To know the nature of the industrial building, its utility and its requirements and needs.

To know the criteria for the choice and industrial implantation in a plot of land, according to the manufacturing and organizational requirements.

### 3. Syllabus

1. Industrial Architecture.
2. Construction regulations and urban planning parameters.
3. Industrial buildings.
4. Industrial Implementation.
5. Structural types and construction with precast concrete elements.
6. Structural typologies and selection criteria.
7. Planning, control and execution of industrial works.

### 4. Academic activities

Learning activities are developed through master classes, practical sessions, and tutorials.

- Acquisition of theoretical knowledge through weekly lectures.
- Practical learning through sessions coordinated with the theoretical progress, developing case studies that will be included in a portfolio. Sessions developed in smaller groups over a total of 10 consecutive weeks.
- The tutorials will allow the review of knowledge acquisition and the development of the work.

The student will have access to the teaching materials prepared by the subject's faculty.

## **5. Assessment system**

The student will be evaluated through a progressive evaluation procedure in which the participation in the development of theoretical and practical sessions and the completion and defense of a continuous work with portfolio format developed throughout the term will be evaluated. This portfolio will include the autonomous resolution of practical cases related to the contents of the subject. The final grade of this progressive assessment will be equal to 100% of the grade of the subject.

In addition to the progressive assessment, students have the right to be evaluated by means of a global test, consisting of a theoretical-practical exam to be taken on the dates indicated by the academic calendar of the School of Engineering and Architecture. The final grade of this final global assessment will be equivalent to 100% of the grade for the subject.