

60806 - Factories and industrial facilities

Syllabus Information

Academic year: 2023/24

Subject: 60806 - Factories and industrial facilities

Faculty / School: 110 - Escuela de Ingeniería y Arquitectura

Degree: 532 - Master's in Industrial Engineering

ECTS: 4.5

Year: 1

Semester: 532-First semester o Second semester

266-First semester o Second semester

107-First semester

Subject type: Compulsory

Module:

1. General information

The objective of the subject is the learning of general aspects related to the design and arrangement of industrial areas, focusing on the industrial implementation process and the organization of its complementary services, both in terms of their spatial arrangement and their functional suitability. This subject deepens the application of mandatory regulations in Spain and provides the necessary knowledge to carry out certifications, audits, verifications, tests and reports related to the project management and construction of industrial plants.

These objectives align with the following Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda: Goal 9: Industry, innovation and infrastructure (9.1, 9.2 and 9.4).

2. Learning results

Knowledge of the urban parameters of the soil and its planning and development characteristics.

Knowledge of the different types of industrial areas and ability to integrate the industrial plant into them.

Ability to design and exploit plants and complementary constructions adapted to different industrial processes.

Knowledge and ability to design plan and integrate the services and facilities necessary for industrial activity into the industrial plant and urban infrastructure.

Knowledge and ability to carry out the verification and control of the facilities and infrastructure of an industrial plant.

Knowledge and ability to carry out certifications, audits, verifications, tests and reports in the above areas.

3. Syllabus

Industrial Architecture

Competencies and responsibilities of the industrial engineer. Building Regulation Law.

Approvals, licenses and applicable legislation for the project and construction of industrial plants.

Legislation, planning and urban management in the industrial field.

Industrial area planning.

Industrial implementation.

Fire safety in industrial establishments

Integration of services and facilities in industrial areas and buildings.

4. Academic activities

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

- Acquisition of theoretical knowledge through weekly master class.
- Application of knowledge through practical sessions coordinated with the theoretical progress of the subject and supervised by the teaching staff. These sessions are conducted in smaller groups to enhance practical learning through the development of various case studies.
- The tutorials will help to review of the student's knowledge acquisition.

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

5. Assessment system

The student will be assessed through a single comprehensive test at the end of the term. It will consist of a theoretical-practical exam to be taken on the date indicated by the academic calendar of the School of Engineering and Architecture.

The exam grade is distributed as follows:

- 60% corresponding to theory.
- 40% corresponding to practice.

Grades below 3.5 out of 10 in any of the parts (theoretical or practical) will not average for the overall exam grade.

If the grade obtained in the first call in any of the parts (theoretical or practical) exceeds 6.5 out of 10, it can be kept for the second call, and only the remaining part of the exam will be assessed.