

60823 - Design and implementation of industrial complexes

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	532 - Master's in Industrial Engineering
ECTS	6.0
Course	2
Period	First 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 methodology tries to strengthen the continuous work of the student and focuses on the most fundamental design and construction aspects of industrial buildings. For this purpose various teaching methodologies were developed:

- Theoretical knowledge through participatory lecture, given to the entire group in the weekly teaching hours allocated.
- Knowledge application by means of practical classes coordinated with the theoretical advance of the course and

60823 - Design and implementation of industrial complexes

supervised by teachers of the subject. These sessions take place in smaller groups to enhance student learning, and develop various technical case studies.

- After each practice session, a practical work will be required. This practical work will become part of the student portfolio.
- The tutorials will serve to review both the acquisition of theoretical knowledge by the student and his practical work.

To follow the theoretical and practical sessions, the students will have the teaching materials developed by the teachers of the subject.

5.2.Learning activities

1. Introduction. Current industrial architecture.
2. Urban planning and design of industrial areas.
3. Calculation and construction of industrial infrastructure.
4. Structural types for buildings of large spans.
5. Construction procedures and project details.
6. Health standards for industrial buildings.
7. Planning, control and means for industrial construction.
8. Prevention of accidents in construction works.
9. Management of construction waste.

5.3.Program

Design of industrial complexes.

Calculation and developing of industrial infrastructures.

Structural types for large spans. Execution and construction details.

60823 - Design and implementation of industrial complexes

Planning, control and execution industrial constructions.

Safety in construction. Construction waste management.

Sanitary conditions in industrial buildings.

5.4.Planning and scheduling

The theoretical teaching of the subject will be developed through lectures. The theoretical teaching will be complemented by laboratory classroom practices (distributed along the course according to schedule established by the EINA) and tutored autonomous works. All these activities will be supported through the Moodle application, by using the *Anillo Digital Docente* of the University of Zaragoza.

The dates set for the practice classes and work presentations will be communicated to students at the beginning of the course, and by the Moodle application of the subject, considering the academic calendar for each course center. The non-progressive assessment exam will be held on the date indicated in the academic calendar of the EINA.

5.5.Bibliography and recommended resources