Universidad Zaragoza

Year : 2020/21

60823 - Design and implementation of industrial complexes

Syllabus Information

Academic Year: 2020/21
Subject: 60823 - Design and implementation of industrial complexes
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
Degree: 532 - Master's in Industrial Engineering
ECTS: 6.0
Year: 2
Semester: First 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 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.
- Knowledge application by means of practical classes coordinated with the theoretical advance of the course and 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.

4.2.Learning tasks

The theoretical teaching of the subject will be developed through lectures. The theoretical teaching will be complemented by 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.

4.3.Syllabus

1. Introduction. Development of industrial areas.
2. Urban planning and design of industrial areas.
3. Calculation and construction of industrial infrastructure.
4. Industrial layout and mandatory documents.
5. Facilities of the industrial building.
6. Storage of chemical products.
7. Health standards for industrial buildings.

7. Planning, control and means for industrial construction, prevention of accidents in construction works and management of construction waste.

4.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the EINA website and the Moodle platform.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

The course includes the following learning tasks:

- Lectures. Theoretical contents given to the entire group in the weekly teaching hours allocated.
- Practice sessions. Knowledge application by means of practice classes coordinated with the lectures and supervised by the teachers. These sessions take place in smaller groups to enhance student learning, and develop various technical case studies.
- Portfolio. After each practice session, a practical task will be required. These tasks will become part of the student's portfolio.
- Tutorials. Teacher's office hours for students to review both the acquisition of theoretical knowledge and the practical tasks.

4.5.Bibliography and recommended resources