

60823 - Design and implementation of industrial complexes

Información del Plan Docente

Academic Year	2017/18
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.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives.. It promotes continuous work and focuses on the most fundamental design and construction aspects of industrial buildings. A wide range of teaching and learning tasks are implemented, such as lectures, laboratory sessions, assignments, and autonomous work.

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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.

5.2.Learning tasks

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.

5.3.Syllabus

The course will address the following topics:

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.

5.4.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.

5.5.Bibliography and recommended resources

The student can find additional information and resources in the library:

<http://psfunizar7.unizar.es/br13/egAsignaturas.php?id=10238>

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| BB | Addis, William. Building : 3000 years of design engineering and construction / Bill Addis London ; New York : Phaidon, 2007 |
| BB | Alcalde Pecero, Francisco. Banco de detalles arquitectónicos / F. Alcalde . - 1ª ed., 5ª reimp. [Sevilla : s. n.], D. L. 2002 e(Sevilla : fTechnographic) |

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- BB** Casals, Miquel. Diseño de complejos industriales : fundamentos / Miquel Casals, Núria Forcada, Xavier Roca . - 1ª ed. Barcelona : Edicions UPC, 2008
- BB** Harris, Frank. Maquinaria y métodos modernos en construcción / por Frank Harris Madrid : Bellisco e Hijos, 1992
- BB** Llaguno Castro, Jon. Planificación de la seguridad y salud en construcción / Jon Llaguno Castro, Javier Domínguez Hernández, Pere Alavedra Ribot [Zaragoza?] : Los Autores, D.L. 2003
- BC** Gago, J . Ordenación de áreas industriales / Gago J., García J.M. Junta de Castilla y León, 1993