Universidad Zaragoza

Year : 2020/21

66432 - Design and Development of the Industrial Process

Syllabus Information

Academic Year: 2020/21
Subject: 66432 - Design and Development of the Industrial Process
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
Degree: 330 - Complementos de formación Máster/Doctorado
536 - Master's in Mechanical Engineering
ECTS: 4.5
Year: XX
Semester: 330 - Second semester
536 - Second semester
Subject Type: 330 - ENG/Complementos de Formación
536 - 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 methodology followed in this course is oriented towards achievement of the learning objectives. It is based on the understanding of the application of experimental techniques and optimization in different areas of design and development of industrial processes. A wide range of teaching and learning tasks are implemented, such as lectures, industrial case studies, projects, and tutorials.

4.2.Learning tasks

The course (4.5 ECTS: 112. 5 hours) includes the following learning tasks:

- Lectures (9 hours).
- Case studies (15 hours). They help improve the the acquisition and assimilation of the theoretical contents.
- Practice sessions (18 hours). They help to develop the student's project.
- Personal Project (69 hours).
- Project presentation (1.5 hours).

4.3.Syllabus

The course will address the following topics:

Topic 1. Planning, simulation and optimization of manufacturing processes.

- Technical Case in sheet-metal forming processes.

Topic 2. Performance optimization in industrial processes.

- Technical Case in design and configuration of production and logistic lines.

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.

4.5.Bibliography and recommended resources