

Academic Year/course: 2022/23

66432 - Design and Development of the Industrial Process

Syllabus Information

Academic Year: 2022/23

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: 536 - Master's in Mechanical Engineering: 1

330 - Complementos de formación Máster/Doctorado: XX

Semester: Second semester

Subject Type: 536 - Optional

330 - ENG/Complementos de Formación

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

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.