

62943 - Advanced development of product

Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	562 - Master's in Product Development Engineering
ECTS	6.0
Year	1
Semester	First semester
Subject Type	Compulsory
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

5.2.Learning tasks

5.3.Syllabus

The course will address the following topics:

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Topic 1. Concurrent Engineering and PLM (Product Lifecycle Management)

- Methodologies in concurrent engineering
- Applications for managing product life-cycle management

Topic 2. Design for manufacture. (DFM)

- Design guidelines in different manufacturing processes
- Digital manufacturing applications for planning and optimization of manufacturing processes

Topic 3. Design for Assembly. (DFA)

- Design and assembly: manual assembly and automated assembly
- Guidelines and methodologies
- Design for assembly with automatic systems and robots

Topic 4. Sustainable Design and Ecodesign

- Design criteria considering the recyclability and the end of product life
- Methods for assessing environmental impact and life-cycle assessment in the process
- Methodology for identification and assessment of sustainable aspects in the production process
- Criteria for selection of sustainable processes

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.

5.5.Bibliography and recommended resources