28834 - Integrated Project

Información del Plan Docente

Academic Year	2018/19
Subject	28834 - Integrated Project
Faculty / School	175 - Escuela Universitaria Politécnica de La Almunia
Degree	424 - Bachelor's Degree in Mechatronic Engineering
ECTS	6.0
Year	4
Semester	First semester
Subject Type	Compulsory
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

1 Theory Classes: The theoretical concepts of the subject are explained and illustrative examples are developed as support to the theory when necessary, focus on calculation, design and development of a mechatronic system

2. Laboratory Workshop. These classes are highly recommended for a better understanding of the concepts because those items whose calculation is done in theory clases are shown in working mode.

3. Tutorials related to any concept of the subject. This activity is developed in a presencial mode with a defined schedule or through the messaging and forum of the virtual classroom Moodle.

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4.2.Learning tasks

Theory Classes. it will take 2 hours per week till the 30 hours, neccesary to acomplish the objetives of the subject study, will be reached

Laboratory Workshop. it will take 15 seassons of 2 hours duration. The group is divided up into various groups, according to the laboratory capacity.

Study and personal work. This non-presential part is valued in about 90 hours, necessary for the study of theory, problem solving and revision of documents

Individual tutorials. Each teacher will publish a schedule of attention to the students throughout the four-month period

4.3.Syllabus

Topic 1. State of the art and technical specification of a mechatronic project

Topic 2. Identification by modules. Block diagrams and information flows.

Topic 3. Modeling and simulation of mechatronic systems

Topic 4. Design of mechatronic systems

Topic 5. Manufacture of prototypes

Topic 6. Programming, verification and functional tests

Topic 7. Cost Analysis and Documentation

Topic 8. Final project on practical application

4.4.Course planning and calendar

The theory classes and problems are given in the timetable established by the center, as well as the hours assigned to the practices. http://www.eupla.unizar.es/

The final schedule will be published on virtual class https://moodle2.unizar.es/add/

The presentation of the works will be done on the last day of class of the subject.

The final test in non-continuous evaluation will contain questions of all the topics covered during the course.

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4.5.Bibliography and recommended resources