

**Información del Plan Docente**

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|-------------------------|---|
| <b>Academic Year</b>    | 2018/19   |
| <b>Subject</b>          | 29748 - Industrial Quality                        |
| <b>Faculty / School</b> | 110 - Escuela de Ingeniería y Arquitectura        |
| <b>Degree</b>           | 434 - Bachelor's Degree in Mechanical Engineering |
| <b>ECTS</b>             | 6.0   |
| <b>Year</b>             | 4   |
| <b>Semester</b>         | First semester                                    |
| <b>Subject Type</b>     | Optional  |
| <b>Module</b>           | ---   |

**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 learning process designed for this course is based on the following:

A lecturing program based on 30 hours of lectures in class, 12 hours of problems, 15 hours of laboratory sessions and company visits or workshops, as well as the fulfillment of a practical Project (60 hours). The project will be carried out either individually or in groups of 3 or 4 students.

The practical sessions in laboratory will last 2,5 hours each, one day every two weeks approximately. As in the theoretical lectures, students will be provided with the guide for the practical work good in advance.

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Both the sessions in classroom and in laboratory will provide the student with knowledge and skills to carry out different practical cases. These will be given to the students for them to apply different techniques learned in class to a specific real case decided at the beginning of the course.

The evaluation is centered on practical aspects. Team work and individual effort will be encouraged. The course has been planned for the student to have a balanced load of work every week.

### 4.2.Learning tasks

The program offered to the students to help them to obtain the expected learning outcomes includes theoretical and practical lectures in the classroom, laboratory sessions and visits to companies.

### 4.3.Syllabus

#### Contents

1. Quality Management System ISO9000
2. EFQM Model
3. Environmental, Health and safety management systems
4. Social Accountability
5. Lean
6. Purchasing Quality
7. Reliability

#### Laboratory sessions

1. Company visit
2. Quality Management System
3. Self assessment according to the EFQM model
4. Lean
5. Reliability

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6. Company visit

### **4.4.Course planning and calendar**

All the theoretical, practical and laboratory sessions will take place according to the schedule and calendar provided by the Escuela de Ingeniería y Arquitectura, which are available on its web site (<http://eina.unizar.es>)

### **4.5.Bibliography and recommended resources**