

## 39726 - Quality

### Syllabus Information

**Academic year:** 2024/25

**Subject:** 39726 - Quality

**Faculty / School:** 175 - Escuela Universitaria Politécnica de La Almunia

**Degree:** 608 -

**ECTS:** 6.0

**Year:** 3

**Semester:** Second semester

**Subject type:** Compulsory

**Module:**

### 1. General information

The overall objective of the subject is to provide the knowledge and skills necessary for the planning, management, control and continuous improvement of the tasks, activities and operational processes that take place in today's organizations in order to ensure the total satisfaction of the parties acting on quality management.

Specifically, the following academic objectives are pursued:

- To enable the student to understand the different meanings of the concept of quality, to differentiate between standardization, homologation and certification activities and to use the different management techniques and management tools and techniques.
- That the students know and use the fundamental aspects of quality assurance in the design, in the manufacturing process or in the purchasing strategy.
- The student should be able to analyze the procedural and documentary structure of different quality management systems.

### 2. Learning results

To pass this subject, students shall demonstrate they has acquired the following results:

- Knows and applies quality management techniques.
- Distinguishes the elements that are part of the quality measurement process in industrial and service companies.
- Recognizes the existence of errors in any measurement process, analyzing their nature and the causes that provoke them causes.
- Checks whether or not a measurement process meets the established quality requirements.
- Calculates the correction and uncertainty as a result of the calibration of an instrument.
- Knows the regulations and the stages of the certification process of a quality system.

### 3. Syllabus

#### Part 1

- Topic 1. Quality basics
- Topic 2. Historical evolution of quality
- Topic 3. Quality costs
- Topic 4. Quality planning
- Topic 5. Quality in design, purchasing and processes
- Topic 6. Product and process quality control
- Topic 7. Measurement assurance. Metrology.

#### Part 2

- Topic 8. Quality improvement tools
- Topic 9. ISO 9001 Standard
- Topic 10. Certification of companies
- Topic 11. Integrated Management Systems

### 4. Academic activities

- Lectures: presentation of the course content, duration 20 hours
- Exercises and practical problems, duration 40 hours

- Study and personal work: completion of evaluable work and preparation of exams, duration 84 hours Assessment tests. 6 hours

## **5. Assessment system**

### Part 1.

- Practical work 25% (minimum 1 points to be able to add up the score for the exam)
- Exam 25% (minimum 1 points to be able to add up the score for papers). Questions related to visits to companies or talks included in the activities of the subject may be included.
- In global evaluation theoretical-practical exam 50%

### Part 2.

- Practical work 25% (minimum 1 points to be able to add up the score for the exam)
- Exam 25% (minimum 1 points to be able to add up the score for papers). Questions related to visits to companies or talks included in the activities of the subject may be included.
- In global evaluation theoretical-practical exam 50%

## **6. Sustainable Development Goals**

5 - Gender Equality

9 - Industry, Innovation and Infrastructure

12 - Responsible Production and Consumption