

30126 - Quality

Syllabus Information

Academic year: 2024/25

Subject: 30126 - Quality

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

179 - Centro Universitario de la Defensa - Zaragoza

Degree: 425 - Bachelor's Degree in Industrial Organisational Engineering

563 - Bachelor's Degree in Industrial Organisational Engineering

ECTS: 6.0

Year: 3

Semester: 563-First semester o Second semester

425-Second semester

457-Second semester

107-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 tools.
- That the students know and use the fundamental aspects of quality assurance in the design, manufacturing process and 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:

- Know and apply quality management techniques
- Distinguish the elements that are part of the quality measurement process in industrial and service companies.
- Recognize the existence of errors in any measurement process, analyzing their nature and the causes that provoke them.causes.
- Check whether or not a measurement process meets the established quality requirements.
- Calculate the correction and uncertainty as a result of the calibration of an instrument.
- Know the regulations and the stages of the certification process of a quality system

3. Syllabus

Company profile

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

Defense profile

The contents of the subject are:

1. Introduction. Definition and scope of quality
2. Measurement assurance. Metrology
3. Quality planning
4. Tools and techniques applied to quality control
5. Quality in design
6. Manufacturing quality
7. Quality in purchasing
8. Quality management systems

4. Academic activities

Company profile:

- Lectures: presentation of the syllabus, duration 20 hours
- Exercises and practical problems, duration 40 hours
- Study and personal work: completion of evaluable work and preparation for exams, duration 84 hours.
- Assessment tests. 6 hours

Defense profile:

- Lectures: sessions to develop the content of the subject.
- Resolution of exercises and practical problems
- Study and personal work: completion of evaluable work and preparation for exams.
- Assessment tests.

5. Assessment system

Company profile

The evaluation activities planned for this subject in this center will have the following weighting:

Part 1.

- Practical work 25% (minimum 1 points to be able to add up the score for the exam)
- Exam 15% (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 assessment 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 assessment theoretical-practical exam 50%

Defense profile

FIRST CALL

The student will be able to pass the total of the subject by the continuous assessment procedure. The student must demonstrate that they have achieved the expected learning results through the assessment activities that will be distributed throughout the term.

- Practical works. Its weight in the final grade is 40%.
- 3 partial theoretical tests. Its weight in the final grade is 60% (20% for each of the tests).

The final continuous assessment grade (100%) will be calculated according to the specific weight of each continuous assessment test. In order to pass the subject, the student must obtain a final grade of 5 or higher. In addition, in order to pass the subject through continuous evaluation, the average grade obtained in the partial theoretical tests must be equal to or higher than 5.

Students who do not pass the subject by continuous evaluation or who would like to improve their grade, will have the right to take the overall test set in the academic calendar, prevailing, in any case, the best of the grades obtained. In the global assessment, the assessment instruments will have the following weighting:

- Practical work 40%.
- Global theoretical test 60%.

The final grade for overall assessment (100%) will be calculated according to the specific weight of each assessment instrument.

In order to pass the subject, the student must obtain a final grade of 5 or higher. In this case, to pass the subject the grade obtained in the overall theoretical test must be equal to or higher than 5.

SECOND CALL

Students who do not pass the subject in the first exam may sit for a Global Test set in the academic calendar for the second exam. In the global assessment, the assessment instruments will have the following weighting:

- Practical work 40%.
- Global theoretical test 60%.

The final grade for overall assessment (100%) will be calculated according to the specific weight of each assessment instrument.

In order to pass the subject, the student must obtain a final grade of 5 or higher. In this case, to pass the subject the grade obtained in the overall theoretical test must be equal to or higher than 5.

Assessment instruments:	RA-1	RA-2	RA-3	RA-4	RA-5	RA-6
Papers	X	X	X	X	X	
Practical						
Partial Tests.	X	X	X	X	X	X
Global theoretical test	X	X	X	X	X	X

6. Sustainable Development Goals

- 5 - Gender Equality
- 9 - Industry, Innovation and Infrastructure
- 12 - Responsible Production and Consumption