

27225 - Introduction to Management Systems

Syllabus Information

Academic year: 2023/24

Subject: 27225 - Introduction to Management Systems

Faculty / School: 100 - Facultad de Ciencias

Degree: 452 - Degree in Chemistry

ECTS: 3.0

Year: 2

Semester: Second semester

Subject type: Optional

Module:

1. General information

The objective of this subject is for the student to acquire the necessary knowledge to work with the different standardized management systems used in the business world and the methodology to be followed for their documentation, implementation and subsequent certification, as well as the tool used by the company to ensure compliance with the applicable legal requirements.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the 2030 Agenda of the United Nations (<https://www.un.org/sustainabledevelopment/es/>):

- Goal 4: Quality Education.
- Goal 12: Guarantee sustainable consumption and production modalities. Objective 12.4

2. Learning results

The student, in order to pass this subject, must demonstrate that they understands and applies the most widespread management systems, as well as the standards that establish the requirements of these systems.

3. Syllabus

Theoretical-practical syllabus

1. Introduction
2. Documentation and implementation of management systems
3. Quality management. ISO 9001
4. Environmental management. ISO 14001
5. Occupational health and safety management. ISO 45001
6. Laboratory management. ISO 17025
7. R&D&I Management. UNE 166002
8. Integrated management.

Practices

1. Standard operating procedure
2. Design of statistical experiments
3. Waste management
4. Modal analysis of failures and effects
5. Occupational risk management

4. Academic activities

The practices, class assignment and work allow the development of a real case study, so that the student can learn about the quality, environmental and occupational risk management procedure in a real company.

- **Master classes.** Theoretical-practical sessions in which the contents of the subject will be explained. 18 hours
- **Laboratory practices.** Elaboration of thematic cartography: 10 hours
- **Personal study:** 30 hours
- **Assessment tests.** 1.5 hours

5. Assessment system

1. Tests

A. Continuous evaluation (practices + work + tasks done in the classroom)

- **Evaluation of 5 practices (50 % final grade).** The student will deliver a script of each practice (which can be done in group of 2 or 3 people). The average of the practices grade must be greater than or equal to 4 out of 10.
- **Evaluation of the work (40 % final grade).** The work will consist of the realization of a real company case where they will analyse and put into practice the knowledge acquired. The work can be done in groups of 2 or 3 people. The grade of the paper must be greater than or equal to 4 out of 10.
- **In-class assignments (10 % final grade).** In the theoretical sessions, small practical activities will be carried out, individually or in groups of 2 or 3 people, which will be handed in at the end of the session.

In order to pass the subject, the average of the 3 blocks must be equal or higher than 5 out of 10.

B. Overall evaluation

Students who do not pass the subject by continuous evaluation or want to improve their grade may opt for the global evaluation in the two official calls. This test will consist of the delivery of an individual work that will represent 100% of the grade.

In order to pass the subject, the grade of the work must be equal to or higher than 5 out of 10.

2. Assessment criteria

Implementation of acquired knowledge (waste management, process and occupational risk analysis, process maps, laboratory procedures), quality and originality of the solution.