

Academic Year/course: 2022/23

27119 - Introduction to Management Systems

Syllabus Information

Academic Year: 2022/23

Subject: 27119 - Introduction to Management Systems

Faculty / School: 100 - Facultad de Ciencias

Degree: 446 - Degree in Biotechnology

ECTS: 6.0

Year: 3

Semester: First semester

Subject Type: Compulsory

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The learning process that has been designed for this subject is based on the following:

The contents of the course will be presented to the student through theoretical presentations and practical exercises, some of which will require non-presential and/or group work by the students.

In the sessions with the complete group, the most theoretical aspects are treated by means of a master class and are completed with the development of exercises and the study of practical cases.

The practical sessions are developed in smaller groups where it is intended to encourage practical learning. At the end of each practical session a small control or script is required to be carried out immediately. In some cases, the practical session allows for the collection of data for a more elaborate work that allows for a better assimilation of the knowledge related to the subject. These controls and works are obligatory in case of opting for continuous evaluation.

The teacher will tutor individually or in group the realization of practical activities.

4.2. Learning tasks

For the development of this subject, the following learning activities are proposed:

- Master classes (30 hours)
- Problem solving classes and case studies (10 hours).
- Practice and individual and/or small group work (20 hours)
- Student's personal study (theoretical/practical part) (60 hours)
- Practical application or research work to be done by the student (25 hours)
- Evaluation tests (5 hours)

The teaching and evaluation activities will be carried out in person unless, due to the health situation, the provisions issued by the competent authorities and by the University of Zaragoza require them to be carried out telematically

4.3. Syllabus

Once the learning results and competences to be acquired by the student have been described in the previous sections, the following section includes the program of the subject. The contents of the course are the following:

- The standardized management systems in the business world and their evolution.
- Legal compliance. Industrial regulations and legislation.
- Different management systems and their field of application in the biotechnology sector.
- Particular requirements of the different management systems.
- Documentation of systems and their implementation. Systems integration.
- Certification of management systems

The contents are structured in the following thematic sections:

Section 1: Introduction

Unit 1: introduction to industrial management systems

Section 2: Quality management systems

Unit 2: Fundamentals of industrial quality

Unit 3: Quality management systems according to the UNE-EN/ISO 9001 standard.

Unit 4: Quality tools and techniques

Section 3: R&D and innovation management systems

Unit 5: R&D and innovation management systems

Unit 6: Documentation management and bibliographic references

Unit 7: Planning and management of R&D projects

Section 4: Environmental management systems

Unit 8: Introduction to environmental management and circular economy

Unit 9: Environmental management systems according to the UNE-EN/ISO 14001 standard.

Section 5: Laboratory management systems

Unit 10: Management systems for testing laboratories

Unit 11: Fundamentals of metrology

Section 6: Occupational safety and health management systems

Unit 12: Introduction to safety at work and prevention of occupational hazards.

Unit 13: Occupational health and safety management systems according to ISO 45001 standard.

4.4. Course planning and calendar

The period of theoretical classes will coincide with that officially established and will be published on the website of the Faculty of Science.

The location where the sessions will be given, the calendar and the practice groups will be established in coordination with the rest of the subjects at the beginning of the course. The coordinator will set up the practice groups at the beginning of the course in order to try not to produce overlaps with other subjects.

Course activities and key dates

The information on the activities of the course, as well as the delivery dates of exercises and work reports will be defined at the beginning of the course and will appear in the course "moodle" ADD of the subject. This channel will also be used to inform registered students of their distribution by practice groups.

The following information will also be available on the website of the Faculty of Science:

- * Academic calendar (class and non-class periods, holidays, exam period).
- * Timetables and classrooms.
- * Dates on which the exams of the official calls for the subject will take place.
- * Timetables for teachers' tutorials.

4.5. Bibliography and recommended resources

The updated bibliography can be found in the BR of the BUZ.

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=27119>