

# 27119 - Introduction to Management Systems

#### Información del Plan Docente

Academic Year 2017/18

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
- 1.1.Introduction
- 1.2. Recommendations to take this course
- 1.3. Context and importance of this course in the degree

### 1.4. Activities and key dates

For students enrolled in the subject, places, times and dates of lectures and practical sessions will be public via Bulletin Board advertisements of the grade on the platform Moodle at the University of Zaragoza, <a href="https://moodle2.unizar.es/add/">https://moodle2.unizar.es/add/</a>, and in the moodle page for the course. These routes will be also used to communicate enrolled students their distribution by groups of practical sessions, which will be organized by the coordination of degree. Provisional dates will be available on the website of the Faculty of Sciences in the corresponding section of the Degree in Biotechnology: <a href="https://ciencias.unizar.es/grado-en-biotecnologia">https://ciencias.unizar.es/grado-en-biotecnologia</a>.

In this web there will be also available the dates of exams.

- 2.Learning goals
- 2.1.Learning goals
- 2.2.Importance of learning goals
- 3. Aims of the course and competences
- 3.1.Aims of the course
- 3.2.Competences
- 4.Assessment (1st and 2nd call)
- 4.1. Assessment tasks (description of tasks, marking system and assessment criteria)



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## 5.Methodology, learning tasks, syllabus and resources

### 5.1. Methodological overview

The planning of the course is progressive: we start with the simplest rule, such as ISO 166000, we go then to ISO 9001, where knowledge of the workings of a pharmaceutical industry and PNT's are given, then we will move to the ISO 17025, OHSAS, and finally the 14000.

The learning process is established based on a theoretical development supplemented with case studies related to the conceptual framework provided. s asignaturas.

#### 5.2.Learning tasks

Students will have a link that will give them access to the various standards mentioned above. Professor will discuss during master-classes the principles of the rules and students will be given short tasks to be done in class but which may be collected on successive days.

Regarding the ISO 16601 students will prepare a research project sketch according to the standard.

Regarding the ISO 9001 students will present a business plan of a company imagined by them, account balance included (and especially income statement): ENTREPRENEURSHIP.

Regarding the ISO 17025 students will elaborate different PNT's related to this standard and biotechnology.

Regarding the OHSAS students will elaborate different PNT's

Regarding the 14001 students will present task about determination of hazardous and significant substances related to biotechnology.

To introduce them in the business world they will be explained the concept of depreciation in different exercises and profitability of an investment.

### 5.3. Syllabus

MASTERCLASSES.

agenda:

- 1. Introduction.
- 1.1. Motivation, teamwork, synergy and communication
- 2. Standardized management systems in the business world and its evolution.



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- 3. Legal Compliance. Regulations and royal decrees on biotechnology
- 4. Management Systems. Introduction and Overview
- 4.1. Quality management system. ISO 9001.
- 4.2. Environmental management system. ISO 14001.
- 4.3. Management system occupational health and safety. OSHAS 18001.
- 4.4. Management system of laboratories. ISO 17025.
- 4.5. Management system R & D + i. 166002

#### PRACTICAL PROGRAM

The task during practices will involve the resolution of practical cases of real character, which will be evaluated individually, and will be addressed in the classroom: TBD

Number of case studies: 5 practices in groups of two students

#### 5.4. Course planning and calendar

Places of classes, timing and practice groups will be established in coordination with the other subjects at the beginning of the school year. The coordinator will draw up practice groups at the beginning of the school year in order to avoid overlaps with other subjects.

Practical classes: 5 classes in groups of two students. The work to be performed will be collected on special dates by the teacher. Likewise class work, which will be individual, will be collected at the dates indicated by the teacher.

Class attendance will be valued and a list of attendees will be collected every day.

### 5.5.Bibliography and recommended resources