

## 30163 - Health and Safety

### Información del Plan Docente

<b>Academic Year</b>	2017/18
<b>Faculty / School</b>	175 - Escuela Universitaria Politécnica de La Almunia
<b>Degree</b>	425 - Bachelor's Degree in Industrial Organisational Engineering
<b>ECTS</b>	6.0
<b>Year</b>	4
<b>Semester</b>	First semester
<b>Subject Type</b>	Optional
<b>Module</b>	---

### **1.General information**

#### **1.1.Introduction**

Brief presentation of the subject

Since the publication of the Law on Prevention of Occupational Risks, one of the essential pillars of any business activity is to execute its processes ensuring at all times the safety and occupational health of workers.

The presence of the subject within the curriculum of the degree in Management Engineering is more than justified by the need to comply with the preventive regulations, so it is essential knowledge of both the mandatory documentation and those responsible is essential, as well as the preventive measures to be taken to eliminate or control the risks to workers.

All those involved in the industrial process must assume their share of preventive responsibility and for this it is necessary that all of them have a minimum preventive knowledge that is developed in this subject.

#### **1.2.Recommendations to take this course**

This subject does not have any normative prerequisites or requires previous knowledge.

#### **1.3.Context and importance of this course in the degree**

The subject of Occupational Safety and Health, is part of the Degree in management Engineering of Industrial Organization taught at the EUPLA, framed within the group of optional subjects of the fourth year.

The necessity of the subject within the curriculum of this degree is more than justified by the existing obligation of every company to comply with the Law on Prevention of Occupational Hazards as well as the Royal Decrees that accompany it and that affect it depending on the activity developed. Most of the graduates will have direct or indirect preventive responsibility within the designation of established functions, so it is imperative that they have knowledge in preventive matters.

### 1.4. Activities and key dates

To achieve the learning outcomes, the following activities will be developed:

**Generic face-to-face activities:**

**Theoretical-practical classes :** The theoretical concepts of the subject will be explained and illustrative practical examples will be developed as support for the theory when it is deemed necessary.

**Practical classes:** Practical cases will be done as a complement to the theoretical concepts studied.

**Generic non-presence activities:**

- Study and assimilation of the theory explained in the lectures.
- Comprehension and assimilation of examples and practical cases
- Preparation exercises and practical cases to be solved by the student
- Preparation of written tests of continuous assessment and final exams.

The weekly schedule of the subject and the dates in each call will be described on the EUPLA website.

### 2. Learning goals

#### 2.1. Learning goals

The student, to overcome this subject, must demonstrate the following results

They Manage safety by:

- Defining the preventive regulations applicable in companies.
- Differentiating and valuing the different preventive responsibilities that are assumed by different agents within the companies.
- Identifying the mandatory and recommended preventive documentation.
- Identifying the different basic occupational hazards that may arise.
- Designing adequate basic preventive measures to eliminate or minimize labor risks that may arise.
- Having basic knowledge of safety management

#### 2.2. Importance of learning goals

The learning outcomes are focused on obtaining the competencies set for this subject and cover the whole process of safety management

### 3. Aims of the course and competences

#### 3.1. Aims of the course

The subject and its expected results respond to the following approaches and objectives:

## 30163 - Health and Safety

Mainly, know and master the regulations in safety and health at work applicable in different industrial environments

For this it is a must to be able to interpret the regulations to know the basic preventive measures to eliminate the occupational risks.

### 3.2.Competences

By passing the subject, the student will be more competent to ...

- Plan, budget, organize, direct and control tasks, people and resources. Solve problems and make decisions with initiative, creativity and critical thinking. Communicate and transmit knowledge, skills and abilities in Spanish.
- Use the techniques, skills and engineering tools necessary for its practice. Knowledge and skills to lead, manage and lead human resources teams.
- Knowledge and ability to make decisions in any of the functional areas of the company integrating its objectives with those of the organization.
- Knowledge and skills for the integral management of the supply chain.

### 4.Assessment (1st and 2nd call)

#### 4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

**ASSESSMENT SYSTEM throughout the semester :**

In order to qualify for this system, it is necessary for the student to attend 80% of the classroom activities of which the subject is composed.

- **EXERCISES AND TASKS POSED :** The teacher will pose exercises, problems, practical cases, theoretical questions, etc. to solve. These papers will have a value of 50% of the subject's grade
- **Written assessment tests :** There will be one theoretical exam that will have a value of 50% of the total grade of the subject, with a required minimum mark of 3 points out of 5 to be able to add the other grades of the subject

**Call ASSESSMENT:**

- **Written test :** There will be one theoretical-practical hat test that will have a score of 100% of the total grade of the subject, with a required minimum mark of 5 out of 10 to be able to add the other grades of the subject. This test will have questions related both to the theoretical part of the subject and to tasks similar to those carried out throughout the semester

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

#### 5.1.Methodological overview

**Presentation general methodology**

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

- **Theoretical practical classes:** Theoretical activities given mostly in an expository way by the teacher, in such a way as to explain the theoretical supports of the subject, highlighting the fundamental issues, structuring them in units and / or sections and relating them to each other. A great part of the theoretical classes have an important practical component of interpretation and application of regulations to company associated.
- **Individual tutorials:** These are the ones made through the individual attention of the teacher in the department. They are intended to help solve the doubts that students find, especially those who for various reasons can not attend group tutorials or need more personalized attention. These tutorials can be face-to-face or virtual, through

## 30163 - Health and Safety

regular e-mail, mail through moodle or messages published in the forum for solving moodle doubts

### 5.2.Learning tasks

#### Programmed learning activities

The program offered to the students to help them achieve the expected results includes the following activities ... It implies the active participation of the students, in such a way that, in order to achieve the learning outcomes, the following activities will be developed:

#### **Generic face-to-face activities:**

- Theoretical classes: The theoretical concepts of the subject will be explained and illustrative practical examples will be developed as support to the theory when it is deemed necessary.
- Practical classes: Exercises and practical cases will be done as a complement to the theoretical concepts studied

#### **Generic non-class activities:**

- Study and assimilation of the theory explained in the lectures.
- Comprehension, interpretation and application of the preventive regulations commented in class Preparation of **tasks**
- Preparation of exams

The course consists of 6 ECTS credits, which represents 150 hours of student work during the semester, 10 hours a week for 15 teaching weeks.

### 5.3.Syllabus

#### Contents of the essential subject for obtaining learning outcomes

Basic Concepts and Health and safety Management

- Risk Prevention Basic Concepts-
- Law on Prevention of Occupational Risk
- Prevention Services
- Offences and penalties in the area of prevention
- Health and safety Management Systems health and safety

Preventive measures to be taken in certain occupational hazards

- Collective Protections
- Epis
- Signalling
- Workplaces

## 30163 - Health and Safety

- Working equipment
- Noise, vibrations, electrical hazard, manual load handling
- Chemical Agents
- Office work hazards, LDC
- Emergency plans and self-protection
- First Aid

### **Practical contents:**

Each topic discussed in the previous section leads associated practical contents, such as:

- Interpretation of the relevant rules applied to the case of companies in the industrial environment
- Analysis of situations that have caused accidents
- Viewing photos and videos about unsafe working conditions
- Design applicable preventive measures in each of theoretical topics given

Some of the practical contents must be performed and presented in class by students individually and / or in groups

### **5.4.Course planning and calendar**

Class hall sessions & work presentations timetable

Basic Concepts and Health and safety Management

- Risk Prevention Basic Concepts. 1-2 week
- Law on Prevention of Occupational Risk. 3-4 week
- Prevention Services. 5 week
- Offences and penalties in the area of prevention. 5 week

## 30163 - Health and Safety

- Health and safety Management Systems health and safety. 6-7 week

Preventive measures to be taken in certain occupational hazards

- Collective Protections. 8 week

- Epis. 9 week

- Signalling. 10 week

- Workplaces. 11week

- Working equipment. 12 weel

- Noise, vibrations, electrical hazard, manual load handling. 13 week

- Chemical Agents. 13 week

- Office work hazards, LDC. 14 week

- Emergency plans and self-protection . 15 week

- First Aid. 15 week

### 5.5.Bibliography and recommended resources

- Cortés Díaz, José María. Técnicas de prevención de riesgos laborales : seguridad e higiene del trabajo / José María Cortés Díaz . - 9ª ed. Madrid : Tébar, 2007
- Manual para la formación en prevención de riesgos laborales : programa formativo para el desempeño de las funciones de nivel básico / autores, Ma. Teresa Díaz Aznarte [et al.] ; coordinador, José M. Viñas Armada ; director, José Vida Soria . - 5a. ed. Valladolid : Lex Nova, 2008

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