

**Academic Year/course: 2022/23**

## **28627 - Labour Health and Safety**

### **Syllabus Information**

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**Academic Year:** 2022/23

**Subject:** 28627 - Labour Health and Safety

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

**Degree:** 422 - Bachelor's Degree in Building Engineering

**ECTS:** 6.0

**Year:** 3

**Semester:** First semester

**Subject Type:** Compulsory

**Module:**

## **1. General information**

### **1.1. Aims of the course**

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

Mainly in knowing and mastering the regulations on occupational health and safety applicable to construction activities. For this it is essential to know how to interpret the regulations to know the basic preventive measures to eliminate occupational risks in the works.

Once the theoretical concepts are known, students may be able to write a Health and Safety Study with minimum coherence and to be able to follow up on a basic profile.

These approaches and objectives are in line with the following Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda ( <https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the course learning outcomes provides training and competence to contribute to their achievement to some degree:

Goal 3: Ensure healthy lives and promote well-being for all at all ages

Goal 4: Quality Education

Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all

Goal 12: Ensure sustainable consumption and production patterns

Goal 13: Take urgent action to combat climate change and its impacts

Specifically with the goals:

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

3.D Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in

particular women migrants, and those in precarious employment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

## 1.2. Context and importance of this course in the degree

The subject of Health and Safety, is part of the degree in Technical Architecture taught by EUPLA, framed within the group of subjects that make up the module called Common Formation. It is a third year subject located in the fifth semester and compulsory (OB), with a teaching load of 6 ECTS credits.

The need for the subject within the curriculum of the present degree is more than justified by the need for any company that develops its activities in a work is required to comply with the preventive regulations. The technicians involved in the management of civil works, whatever their productive responsibility, are also responsible and active agents of compliance.

## 1.3. Recommendations to take this course

The development of the subject of Occupational Health and Safety does not require prior knowledge in the subject, although it is advisable to have passed the subjects of Building I, II and III. Work Equipment, Measurements and Budgets, Organization, Programming and Control of Works of the degree. (Some of them with parallel chronology to the subject concerns us)

# 2. Learning goals

## 2.1. Competences

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

**Mandatory Competencies**

Knowledge of construction law and the contractual relationships that occur in the different phases of the building process, as well as the legislation, regulations and specific regulations of prevention and coordination in occupational health and safety in buildings

Ability to write studies, basic studies and occupational health and safety plans and coordinate safety during the project or work in progress

Ability to analyze and carry out building evacuation projects

**General Competencies**

-Organization and planning capacity

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-Capacity to solve problems

-Ability to make decisions

-Aptitude for oral and written communication of the native language

-Capacity for analysis and synthesis

-Ability to manage information

-Capacity for teamwork

-Capacity for critical reasoning

-Ability to work in an interdisciplinary team

-Ability to work in an international context

-Ability to improvise and adapt to face new situations

-Aptitude of leadership

-Positive social attitude towards social and technological innovations

-Capacity of reasoning, discussion and presentation of own ideas

-Communication capacity through words and images

-Capacity of search, analysis and selection of information

-Capacity for independent learning

-To possess and understand knowledge in a study area that starts from the general secondary education base, and usually find at a level, which although supported by advanced textbooks, also includes some aspects that they involve knowledge from the forefront of their field of study.

-Apply their knowledge to their job or vocation in a professional way and possess the skills they usually demonstrate through the development and defense of arguments and problem solving within their area of ??study.

-Ability to collect and interpret relevant data (usually within their study area) to make judgments that include a reflection on relevant social, scientific or ethical issues

-Transmit information, ideas, problems and solutions to a specialized and non-specialized audience.

-Develop those learning skills necessary to undertake further studies with a high degree of autonomy

## 2.2. Learning goals

The student, to pass this subject, must demonstrate the following results ...

It defines the preventive regulations applicable in the companies that intervene in the works and in the work as a whole  
Differentiates and values ??the different preventive responsibilities assumed by each of the participants in a work  
Identifies the mandatory and recommended preventive documentation for each of the participants.  
Identify the different occupational risks that may arise in the different phases of the work  
Designs adequate basic preventive measures to eliminate or minimize occupational risks that may arise  
Apply basic safety management measures on a construction site  
Writes Health and Safety Studies, Basic Studies and Health and Safety Plans  
Coordinate security in the project phase or in the execution phase of the work  
Has the capacity to analyze and carry out evacuation projects for buildings

### 2.3. Importance of learning goals

The learning outcomes are focused on obtaining the competencies established for this subject and they cover the entire security management process.

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

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

The student must demonstrate that he / she has achieved the expected learning results through the following evaluation activities

Assessment is a basic element in the entire teaching-learning process, since the only mechanism that allows, at any time during an educational period, to detect the degree of achievement of learning results proposed and, if applicable, apply the necessary corrections.

Evaluation should be understood as a continuous and individualized process throughout the entire period of teaching-learning, valuing as a priority the capacities and abilities of each student, as well as the yields thereof.

The evaluation process will include two types of action:

? A continuous evaluation system, which will be carried out throughout the entire learning period.

? A global assessment test that reflects the achievement of learning results, at the end of the period of teaching.

These evaluative processes will be carried out through:

? Direct observation of the student to know their attitude towards the subject and the work that it requires (attention in class, completion of assignments, resolution of questions and problems, active participation in the classroom, etc.).

? Checking their progress in the conceptual field (questions in class, comments in the classroom and comments in moodle).

? Regular oral and / or written tests to assess the degree of knowledge acquired, as well as the qualities of expression that, at this educational level, must be shown with wide correction.

Continuous evaluation system.

Following the spirit of Bologna, regarding the degree of involvement and continued work of the student throughout the course, the

Subject evaluation considers the continuous assessment system as the most appropriate to be in line with the guidelines set by the new framework of the EHEA.

In order to be eligible for this evaluation system, the student must attend 80% of the face-to-face activities of which consists of the subject

The continuous evaluation system will have the following group of qualifying activities:

? Individual activities in class and moodle: Active participation in the entire teaching-learning process and the contribution of photos, articles and preventive comments both in class and in the moodle forum will contribute 5% to the final grade for the course.

? Exercises, theoretical questions and proposed works: Students must prepare a Safety and Health Study individually and under a closed statement and index applied to a specific case of a building work. The grade of this ESS will be 70% of the final grade for the course.

? Written evaluative tests: They will be carried out in order to regulate learning, stimulate the distribution of effort throughout over time and have a more individualized evaluation tool of the educational process. They prove  
They will collect theoretical and / or practical questions of the different subjects to be evaluated. This activity will contribute 25% to the final grade of the subject.

As a summary of the above, the following weighting table for the qualification process of the different activities in which the continuous evaluation process of the subject has been structured.

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Evaluation activity Weighting

Individual activities in class or moodle 5%

Exercises, theoretical questions and proposed works 70%

Written assessment tests 25%

Prior to the first call the teacher of the subject will notify each student if they have passed or not subject based on the use of the continuous evaluation system, based on the sum of the scores obtained in the different activities developed throughout it. In case of not passing in this way, the student will have two additional calls to do so (global assessment test), on the other hand the student who has passed the subject through this dynamic, you can also choose the final evaluation, on first call, to upload note but never to download.

The evaluation criteria to be followed for the activities of the continuous evaluation system are:

? Individual activities in class and moodle: The rating of the activities proposed in the forum will be taken into account of moodle on publication and comment of photos, articles and comments of situations of preventive interest. It will be valued the personal contribution in each of them, relating them to the preventive knowledge acquired during the course

? Exercises, theoretical questions and proposed works: Compliance with all the requirements raised in the statement of the work, correct development, writing, coherence and presentation of the treated. The

score of the Health and Safety Study is 70% and compulsory delivery, being necessary to obtain a minimum grade of 40% of the total grade to be considered approved

- Written evaluative tests: They will consist of written exams scored according to the table specified above, being necessary a minimum score of 40% in each of them to be able to add the rest of the grades of the subject. The exams may have a theoretical and / or practical part

Final assessment global test

The student must opt ??for this modality when, due to their personal situation, they cannot adapt to the work rhythm required in the continuous evaluation system, has suspended or would like to upload a grade having participated in said evaluation methodology.

As in the previous evaluation methodology, the global final evaluation test must be aimed at check if the learning results have been achieved, as well as contribute to the acquisition of the various competencies, having to be carried out through more objective activities if possible.

The global final evaluation test will feature:

? Exercises, theoretical questions and proposed works: Students must prepare a Safety and Health Study, individually and under a statement and closed index applied to a case of a building work. The rating of This ESS will be 80% of the final grade for the course.

? Written evaluative tests: They will be carried out in order to regulate learning, stimulate the distribution of effort throughout over time and have a more individualized evaluation tool of the educational process. They prove They will collect theoretical and / or practical questions from the different topics to be evaluated. This activity will contribute 20% to the

final grade of the subject.

As a summary of the above, the following weighting table for the qualification process of the different activities in which the final evaluation process of the subject has been structured.

Evaluation activity Weighting

Exercises, theoretical questions and proposed works 80%

Written assessment tests- 20%

All the activities included in the global final evaluation test, with the exception of the written exam, may be promoted to the next official call, within the same academic year.

The evaluation criteria to be followed for the activities of the final evaluation system are the same as in evaluation keep going.

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

### 4.1. Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. It is based on participation and the active role of the student favors the development of communication and decision-making skills. A wide range of teaching and learning tasks are implemented, such as lectures, guided assignments, laboratory sessions, autonomous work, and tutorials.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

- The approach, methodology and assessment of this guide are intended to be the same for any teaching scenarios. They will be adapted to the social-health situation at any particular time, as well as to the instructions given by the authorities concerned.

### 4.2. Learning tasks

This 6 ECTS course is organized as follows:

- **Lectures** (1.5 ECTS): 37.5 hours. the professor will explain the theoretical contents of the course and solve illustrative applied problems. These problems and exercises can be found in the problem set provided at the beginning of the semester. Lectures run for 3 weekly hours. Although it is not a mandatory activity, regular attendance is highly recommended.
- **Guided assignments** (1.5 ECTS): 37.5 hours. Students will complete assignments, problems and exercises related to concepts seen in lectures. They will be submitted at the beginning of every session to be discussed and analyzed. If assignments are submitted later, students will not be able to take the assessment test.
- **Autonomous work and study** (3 ECTS): 75 hours. Students are expected to spend about 75 hours to study

theory, solve problems, prepare lab sessions, and take exams.

- **Tutorials.** The professor's office hours will be posted on Moodle and the degree website to assist students with questions and doubts. It is beneficial for the student to come with clear and specific questions.

### 4.3. Syllabus

This course will address the following topics:

#### **Section 1. Health and Safety Management**

- 1. Basic concepts
- 2. Labour risk prevention law (RD 486/1997)
- 3. Construction work law (RD 1627/1997)

#### **Section 2. Basic safety requirements**

- 4. Collective Protection
- 5. Personal protection equipment
- 6. Signalling
- 7. Welfare and sanitation facilities

### 4.4. Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of EUPLA website (<http://www.eupla.unizar.es>) and Moodle.

### 4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=28627>