

## Course guide

### 240801 - 240801 - Fundamentals of Prevention

Last modified: 14/01/2025

**Unit in charge:** Barcelona School of Building Construction  
**Teaching unit:** 1039 - UPF - Universitat Pompeu Fabra.

**Degree:** MASTER'S DEGREE IN OCCUPATIONAL HEALTH AND SAFETY (Syllabus 2016). (Compulsory subject).

**Academic year:** 2024    **ECTS Credits:** 3.0    **Languages:** Spanish

#### LECTURER

**Coordinating lecturer:** Fernando García Benavides  
Michael Silva

**Others:** Primer quadrimestre:  
FERNANDO GARCÍA BENAVIDES - 10  
MICHEL SILVA - 10

#### TEACHING METHODOLOGY

Of the 75 hours of work to be dedicated by the student to this subject, 31 will be with the presence of the teacher, with the following distribution:

- Six theoretical sessions of 2 hours where the basic information of the topics included in the program will be presented and discussed; Prior to the session, the presentation that will be used in class and, where appropriate, complementary material, will be available on campus.
- Three 2-hour practical sessions in which students will solve cases and problems previously raised in small groups.
- A 2-hour preparation session prior to the oral presentations.
- Three 2-hour seminar sessions with oral presentation for 10-15 minutes on a topic by each student, selected by him in agreement with the teachers.
- Each week the student has half an hour of tutoring (5h in total), to clarify doubts and monitor the learning process.

#### LEARNING OBJECTIVES OF THE SUBJECT

- Define the basic concepts of safety and health at work.
- Expose the organizational principles of prevention, both at the national level and at the company level.
- List the main occupational health and safety information systems.
- List the main actors and policies in occupational safety and health.

#### STUDY LOAD

Type	Hours	Percentage
Self study	48,0	64.00
Hours large group	27,0	36.00

**Total learning time:** 75 h

## CONTENTS

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### Basic concepts, historical evolution of safety and health at work

**Description:**

The Occupational Risk Prevention Law in 1995 is the continuation of a long process started in Spain in 1900 with the Work Accident Law.

**Full-or-part-time:** 1h

Theory classes: 1h

### Health, natural history of disease and prevention

**Description:**

Health as a subjective and objective state is explained by multicausal models (biopsychosocial) where work is one of its main determinants.

**Full-or-part-time:** 1h

Theory classes: 1h

### Theoretical model of the causal relationship between work and health

**Description:**

The relationship between work and health is mediated by distal (macro) and proximal (work and employment) factors, whose interaction gives rise to injuries, illnesses and disabilities. The role of the Surveys of Working Conditions (ECT)

**Full-or-part-time:** 1h

Theory classes: 1h

### Work-Related Health Effects

**Description:**

Magnitude and trends of injuries due to accidents at work, occupational diseases and work-related diseases and temporary and permanent disabilities.

**Full-or-part-time:** 1h

Theory classes: 1h

### Institutional preventive structure (Catalonia, Spain and Europe) and in companies

**Description:**

Relationship between the labor authority, health authority and prevention services. The participation of the workers.

**Full-or-part-time:** 1h

Theory classes: 1h



### Evaluation of preventive programs and policies

**Description:**

Differentiate between the evaluation of the structure, the process and the results in preventive programs and policies in companies.

**Full-or-part-time:** 1h

Theory classes: 1h

## ACTIVITIES

### Practice 1 - The case of the Robot

**Description:**

Analysis of a fatal injury due to work accident, its causes and prevention.

**Full-or-part-time:** 1h

Theory classes: 1h

### Practice 2 - Employment and exposure matrix

**Description:**

Use of the Spanish Employment and Exposure Matrix (MatEmESp).

**Full-or-part-time:** 1h

Theory classes: 1h

### Practice 3 - Management of Temporary Disability (IT)

**Description:**

Practical cases

**Full-or-part-time:** 1h

Theory classes: 1h

### Practice 4 - Preparation of presentations

**Description:**

Oral presentations

**Full-or-part-time:** 1h

Theory classes: 1h

### Seminar 1 - Student work presentation

**Description:**

Student work presentation

**Full-or-part-time:** 1h

Theory classes: 1h



#### Seminar 2 - Student work presentation

**Description:**

Student work presentation

**Full-or-part-time:** 1h

Theory classes: 1h

#### Seminar 3 - Student work presentation

**Description:**

Student work presentation

**Full-or-part-time:** 1h

Theory classes: 1h

### GRADING SYSTEM

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- a) Attendance at practices and seminars: 10%
- b) Internship report: 20%
- c) Seminar presentation: 40% (minimum grade 5)
- d) Multiple choice final exam: 30% (minimum grade 5)

## EXAMINATION RULES.

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- Attendance at practical sessions and seminars is mandatory and represents 10% of the final grade, subtracting 2% for each missed session.

- The student must carry out individually at least 2 summaries / reports of two of the 3 practices, whose length must not exceed 500 words each summary. The abstract evaluation criteria will follow the following guide:

- Length (1 point): maximum 500 words

? Structure and formal presentation of the abstract (4 points):

a) Document format

b) Name and surname

c) Title of the seminar / case study

d) Brief presentation of the case / tool object of the practice

e) Objective of the seminar

f) Description of results obtained and / or answers to the proposed questions

g) Conclusions

? Content (5 points): fluid, clear and coherent following the formal structure.

? For the presentation of the seminar, each student will have between 10 and 15 minutes, presenting their work through slides, which they must deliver at the end of the presentation, which will be held in an open session to the other students. Oral presentations represent 40% of the final grade, the minimum grade must be 5. The evaluation criteria for presentations will be the following:

a) Quantity and quality of the slides: number / time ratio, structure, quantity of text.

b) Quality, clarity, and general precision of the content and its presentation

c) Adaptation of tables and figures presented

d) Clarity and relevance of the final conclusions

e) Reflections and / or proposals provided by the student

Presentation model:

Slide 1: Title / Author

Slide 2: Justification

Slide 3: Material and Definitions

Slide 4: Description of the results

Slide 5: Interpretation

Slide 6: Conclusion

? The final exam will consist of multiple choice questions with five possible answers of which only one will be correct. The correct answers will be worth one point and the incorrect answers will subtract 0.20 points. The exam represents 30% of the final grade, the minimum grade must be 5

## BIBLIOGRAPHY

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### Basic:

- Carlos Ruiz-Frutos, Ana M<sup>a</sup> García, Elena Ronda, Jordi Delclos, fernando G. Benavides. Salud laboral : conceptos y técnicas para la prevención de riesgos laborales. 4a ed. Barcelona: Masson, 2014. ISBN 9788445821466.

- Bestratén Belloví, Manuel. Condiciones de trabajo y salud. [5<sup>a</sup> ed.]. Madrid: Instituto Nacional de Seguridad e Higiene en el Trabajo, DL 2003. ISBN 8474255686.

## RESOURCES

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### Other resources:

Central American Centre for Conditions of Employment and Occupational Safety and Health <http://www.oiss.org/revista/?p=350> />  
International Labour Organisation

<https://www.ilo.org/global/lang-es/index.htm> />

European Agency for Safety and Health at Work

<https://osha.europa.eu/es> />

National Institute for Safety and Health at Work

<https://www.insst.es/> />

Expert Network on Surveys on Conditions of Work, Employment and Health Surveys

<http://www.ecotes.una.ac.cr/es> />

Centre for Research in Occupational Health, Pompeu Fabra University

<https://www.upf.edu/cisal> />