Universitat Autònoma de Barcelona

2022/2023

Hygiene and Health

Code: 104030
ECTS Credits: 6

Degree	Type	Year	Semester
2502501 Prevention and Integral Safety and Security	OT	4	1

Contact

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Use of Languages

Principal working language: spanish (spa)
Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: Yes

Prerequisites

This subject has not pre-requierements.

Objectives and Contextualisation

The general training objectives of the subject are:

- Understand the key aspects to assess the working conditions from the physical, chemical and biological perspective of the working enviroment.
- Assess the main risks to the person of the physical, chemical and biological contaminants.
- Know how to design sampling strategies for hygiene studies.
- Know how to interpret the results of the measures of the physical, chemical and biological contaminants.
- Identify the necessary preventative aspects to protect the person from the physical, chemical and biological contaminants.
- Acquire the knowledge necessary for the design of jobs adapted to the person and free of contaminants.
- Understand the main functions of work medicine.
- Know the main techniques of work medicine.
- Acquire the basic knowledge to understand occupational epidemiology.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Be able to adapt to unexpected situations.
- Communicate information , ideas, problems and solutions to both specialised and non-specialised publics.
- Generate innovative and competitive proposals in research and in professional activity developing curiosity and creativity.
- Have a general understanding of basic knowledge in the area of prevention and integral safety and security.
- Identify, manage and resolve conflicts.

- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Respond to problems applying knowledge to practice.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Use the capacity for analysis and synthesis to solve problems.
- Work in institutional and interprofessional networks.

Learning Outcomes

1. Analyse the situation and identify the points that are best.
2. Apply systems of responsibility and management models particular to models of labour risk prevention management.
3. Be able to adapt to unexpected situations.
4. Critically analyse the principles, values and procedures that govern professional practice.
5. Generate innovative and competitive proposals in research and in professional activity developing curiosity and creativity.
6. Identify the most common labour risk factors.
7. Identify, manage and resolve conflicts.
8. Propose new methods or well-founded alternative solutions.
9. Propose projects and actions that incorporate the gender perspective.
10. Propose viable projects and actions that promote social, economic and environmental benefits.
11. Respond to problems applying knowledge to practice.
12. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
13. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
14. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
15. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
16. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
17. Use the capacity for analysis and synthesis to solve problems.
18. Work in institutional and interprofessional networks.

Content

Block 1 - Work hygiene

- Work hygiene. Concepts and objectives.
- Chemical agents. Occupational toxicology.
- Chemical agents. Evaluation of the exhibition.

- Chemical agents. Control of the exhibition: general principles, actions on the polluting focus, actions on the propagation medium. Ventilation, actions on the person: personal protection equipment.
- Specific legal regulations.
- Physical agents: characteristics, effects, evaluation and control: noise, vibrations, thermal environment, non ionizing radiation, ionizing radiation.
- Biological agents. Effects, evaluation and control.

Block 2 - Work medicine

- Basic concepts. Objectives and functions.
- Pathologies of work origin.
- Surveillance of health.
- Promotion of health in the company.
- Occupational epidemiology and epidemiological investigation.
- Health planning and information.
- First aid.

Methodology

The methodology is online. Students have the material to read, understand and understand the subject. There will be video classes and practices of continuous evaluation for the correct operation of the subject.

15 minutes of a class will be reserved, within the calendar established by the center / degree, for the complementation by the students of the surveys of evaluation of the performance of the faculty and of evaluation of the subject / module.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Evaluation	4	0.16	
Video Class	12	0.48	
Type: Supervised			
Tutorials to support the realization of practical and theoretical work	24	0.96	
Type: Autonomous			
Personal study, reading articles and preparing class work	110	4.4	

Assessment

Students will take four continuous assessment tests (PEC) that will be delivered through the Moodle classroom. 50 %.

Students will carry out an evaluation by means of a face-to-face written test on the subject that will take place on the date scheduled at the School. This test may be oral at the discretion of the teacher. The value of this test will be 50%.

To be able to do the average of the subject, you must have a minimum of 3.5 points.

In the event that the subject is not passed in accordance with the aforementioned criteria, a recovery test may be taken on the date scheduled in the timetable, which will cover all the contents of the program. To participate in the recovery, students must have been previously assessed in a set of activities, the weight of which is equivalent to a minimum of two thirds of the total grade of the subject. However, the grade that will appear in the student's transcript is a maximum of 5-Passed.

Students who need to change an assessment date must submit the application by filling out the document found in the EPSI Tutoring Moodle space.

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the event that the student commits any irregularity that may lead to a significant variation in the grade of an assessment act, will grade this assessment act with a 0, regardless of the disciplinary process that may be instructed. In the event of several irregularities in the assessment acts of the same subject, the final grade of this subject will be 0 ". The tests / exams may be written and / or oral at the discretion of the teacher.

Regarding those students who have to retake the course, it should be emphasized that the assessment methodology is the same as for other students.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Exercices and activities	50%	0	0	3, 4, 1, 2, 11, 5, 6, 7, 8, 9, 10, 16, 15, 14, 12, 13, 18, 17
Theoretical test	50%	0	0	3, 4, 1, 2, 11, 5, 6, 7, 8, 9, 10, 16, 15, 14, 12, 13, 18, 17

Bibliography

- Bazan, X (2014). Higiene industrial. Barcelona: editorial UOC.
- Fernández, J. (2013). Vigilancia de la salud de los trabajadores. Madrid: Eolas Editores.
- Henao, F. (2010). Riesgo Químico. Madrid: Starbook Editorial.
- López, A. (2011). Radioprotección en centros sanitarios. Madrid: CEP.
- López, R. (2006). Riesgos químicos en el trabajo: guía jurídica. Madrid: Bomarzo.
- Matero, P. (2009). Gestion de la higien industrial en la empresa. Madrid: Fundación Confemetal.
- Menendez, F. (2012). Higiene Industrial. Manual para la formación del especialista. Valladolid: Lex Nova.
- Rubio, J. C. (2005). Manual para la formación de nivel superior en prevención de riesgos laborales. Barcelona: Díaz Santos.
- Ruiz-Frutos, C, García, A. M, Delcòs, J, Benavides, F.G. (2007). Salud laboral, conceptos y técnicas para la prevención de riesgos laborales. Barcelona. Ed. Masson.

Software

The subject will use the basic software of the Office 365 package.