

Psychosociology and Ergonomics

Code: 104037
 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 does not have any pre-requirement

Objectives and Contextualisation

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Know the key aspects for conducting studies of working conditions.

Acquire the necessary knowledge for the design of jobs adapted to the person.

Understand the ergonomic approach to physical factors: noise, lighting, environment chromatic, temperature, etc.

Identify all preventive aspects related to work with visualization screens of data

Understand the importance of the problems derived from the physical load and the establishment of adequate preventive measures.

Know and know how to apply different methods of evaluating the postural load.

Contribute to the improvement of the social and organizational aspects of the work with the objective of safeguard health and safety, with maximum comfort, satisfaction and effectiveness.

Recognize and identify those psychosocial factors existing in the workplace, which can be cause diseases or decrease the capabilities of workers.

Identify situations related to work stress and know the different strategies of the organization to face it.

Adopt a critical perspective regarding a series of situations, which may lead to another series of psychosocial problems such as Burnout, work addiction, etc.

Distinguish the problems arising from personal relationships at work and arrange the measures adequate to prevent it.

Differentiate the key aspects that relate to the mental load.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Be able to adapt to unexpected situations.
- Carry out analyses of preventative measures in the area of security.
- 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.
- Plan and coordinate the resources of the three large subsystems that interact in questions of security: people, technology and infrastructures.
- 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 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 sex- or gender-based inequalities and the gender biases present in one's own area of knowledge.
2. Analyse the situation and identify the points that are best.
3. Apply systems of responsibility and management models particular to models of labour risk prevention management.
4. Be able to adapt to unexpected situations.
5. Coordinate the resources of the three main subsystems of the prevention and integral security sector: people, technology and infrastructures.
6. Critically analyse the principles, values and procedures that govern professional practice.
7. Generate innovative and competitive proposals in research and in professional activity developing curiosity and creativity.
8. Identify the most common labour risk factors.
9. Identify, manage and resolve conflicts.
10. Implement and evaluate a plan for labour risk prevention in an organisation.
11. Propose new methods or well-founded alternative solutions.
12. Propose projects and actions that incorporate the gender perspective.
13. Respond to problems applying knowledge to practice.
14. 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.

15. 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.
16. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
17. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
18. 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.
19. Use the capacity for analysis and synthesis to solve problems.
20. Work in institutional and interprofessional networks.

Content

Ergonomics is a scientific and technical discipline that values the interaction in a specific working environment between the person - machine - environment seeking system harmony, hence using methods that study the person, the design of the site, the way of working, the organization of work, and the surrounding environment. At the same time, psychosocial factors in the working environment affect the health of workers through psychological and physiological mechanisms that can lead to different pathologies, initially mental, and that can trigger organic alterations.

Block I: Applied Psychosociology

Mental load at work. Analysis and evaluation

Psychosocial factors

Organizational structure of the work. I work shifts and night work.

Characteristics of the company, the position and individual

Stress and other psychosocial problems. The burnout syndrome. Mobbing

Consequences of harmful psychosocial factors and their evaluation

Psychosocial intervention: Methodology for evaluating occupational risk prevention programs with psychosocial components.

Block II: Ergonomics.

Ergonomics: Introduction. History. Relationship with other sciences. Concepts and classification. Techniques ergonomic

Environmental conditions in ergonomics. Acoustic comfort Visual comfort. Thermal comfort. Comfort chromatic. Analysis and evaluation

Conception and design of the job. Anthropometry applied to the design of work systems. Occupational biomechanics and job design

Physical workload. Analysis and evaluation. Manual handling of loads. Analysis and evaluation

Work positions. Analysis and evaluation. Repetitive movements. Analysis and evaluation. Evaluation of jobs. The ergonomic report.

Methodology

The methodology of this allocation will be based on a dynamic and participatory model. Students will have to study the subjects by requiring reading of the materials to be offered, they will have to participate in written discussion forums and video classes.

Development, study, compulsory and recommended bibliographic reading, as well as out-of-table exercise resolution will also occupy a significant part of the learner's dedication time to the subject.

During the six months, a cross-cutting exercise will be carried out, which will be explained in detail during the first part-sessions of this subject.

It is important to mention that video-classes have as their main goal the question of the theme, so it is necessary to prepare the topics before each session

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			
Assessment	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

WRITTEN INDIVIDUAL TEST (THERE WILL BE A GLOBAL EXAMINATION OF THE TWO SUBJECTS AT THE END OF THE SUBJECT)

The theoretical test will be on Block 1 and Block 2 and will count 50% of the grade of the subject (25% for each block to be passed with a minimum of 5 each). The test will consist of 60 multiple choice questions, both theoretical and practical. Each question will have a certain value (which the teacher will determine and communicate) and a certain value will also be subtracted for each failed or unanswered question (which the teacher will determine and communicate). If each part of the block is not passed the student will go to recovery of the suspended block. The minimum grade to be able to go to recovery is 3.5.

The student must submit 4 PECs, 2 per Block. To add to the continuous assessment each PEC must have a grade of 5.

If each part of the block and PECs is not passed, the student will go to recovery of the block and the suspended PECs. The minimum grade to be able to go to recovery is 3.5.

Important: One who does not take one of the tests is equivalent to 0. In the event of a justified absence from the test, the teacher can be consulted in order to find an alternative form of assessment for that test.

The students will make an evaluation through written test in person on the subject that will take place on the date scheduled at the School. This test may be oral at the teacher's discretion.

Re-evaluation

In case of not passing the subject according to the aforementioned criteria (continuous evaluation), a recovery test may be done on the date scheduled in the schedule, and it will cover the entire contents of the program.

To participate in the recovery the students must have been previously evaluated in a set of activities, the weight of which equals a minimum of two thirds of the total grade of the subject. However, the qualification that will consist of the student's file is a maximum of 5-Approved.

Students who need to change an evaluation date must submit the request by filling in the document that you will find in the moodle space of Tutorial EPSI.

Plagiarism

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the event that the student makes any irregularity that could lead to a significant variation in the grade of an evaluation act, it will be graded with a 0 This evaluation act, regardless of the disciplinary process that can be instructed In case of various irregularities occur in the evaluation 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 teaching staff.

Students that retake the course

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
Continuous assessment: Resolution and delivery of practical cases solved in the classroom: Resolution and delivery of individual works posted on the MOODLE. Mandatory reading of the book referring to the bibliography.	50%	0	0	4, 6, 1, 2, 3, 5, 13, 7, 8, 9, 10, 11, 12, 18, 17, 16, 14, 15, 20, 19
Teorical test ERGONOMÍA	25%	0	0	4, 6, 1, 2, 3, 5, 13, 7, 8, 9, 10, 11, 12, 18, 17, 16, 14, 15, 20, 19
Teorical test PSICOSOCIOLOGÍA	25%	0	0	4, 6, 1, 2, 3, 5, 13, 7, 8, 9, 10, 11, 12, 18, 17, 16, 14, 15, 20, 19

Bibliography

Bibliografía obligatoria

LIDERANDO EL BIENESTAR INTEGRAL?: ORDEN O CAOS

MIQUEL ÀNGEL SERRAT JULIÀ

BOSCH EDITOR

Basic bibliography

Llaneza F. J. (2009). Ergonomics and applied psychosociology. Manual for the specialist's training. Valladolid: Lex Nova.

Cruz J. A. (2011). Applied Ergonomics Madrid: Editorial Starbook.

Lillo J. (2000). Ergonomics: Evaluation and design of the visual environment. Barcelona: Editorial Alliance.

Llorca J. L. ; Llorca L. ; Llorca M. (2015). Manual of ergonomics applied to the prevention of occupational risks. Madrid: Pyramid.

Mondelo P. R. ; Gregori E. ; Barrau P. (2000). Ergonomics 1: Fundamentals. Barcelona: Edicions UPC.

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Mondelo P.R. ; Gregori E. ; Barrau P. ; Blasco J. (2000). Ergonomics 3: Design of a job. Barcelona: Edicions UPC.

Mondelo P.R. ; Gregori E. ; From Pedro O. ; Gomez M.A. (2013). Ergonomics 4: Work in offices. Barcelona: Edicions UPC.

García A. L. (2017). Ergonomics and psychosociology applied to the prevention of occupational risks. Oviedo: Oviedo University Editions.

Gutiérrez J.L. ; Moreno B. ; Garrosa E. ; (2005). Mental load and work fatigue. Madrid: Pyramid.

Meseguer M. ; Soler M. I. (2010). Work Psychology. Murcia: Ed. Diego Marín.

Nogareda M. (2003). Psychosociology of work. Madrid: Ministry of Labor and Social Affairs.

Salanova M. (2009). Psychology of occupational health. Madrid: Synthesis.

WEB links

Generalitat of Catalunya. Departament d'Empresa i Ocupació. Seguretat i Salut Laboral.

ILO: Encyclopedia of Health and Safety at Work. Available in electronic format at <http://empleo.mtas.es/insht/index.htm>

ISTAS Portal. Trade Union Institute of Environment and Health. <http://www.istas.net/web/portada.asp>

Moncada, S., Llorens, C. and Kristensen, T. (2004). ISTAS21 method (CoPsoQ). Manual for the assessment of psychosocial risks at work. Madrid. Istas. Available at: http://www.istas.ccoo.es/descargas/m_metodo_istas21.pdf

Ergonomics in Spanish. : <http://www.ergonomia.cl/eee/Inicio/Inicio.html>

Government of La Rioja. Occupational Health Publications

Navarro Institute of Occupational Health

National Institute for Safety and Hygiene at Work. Portal of Ergonomics and Psychosociology

European Foundation for Working Conditions

Statistics about work. Eurostat

Basque Institute of Occupational Health and Safety. OSALAN

Software

This subject will use the basic software of the Office 365 package