Universitat Autònoma de Barcelona

2022/2023

Psychosociology and Ergonomics

Code: 101831
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: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

External teachers

Dr. Bernat Noël Tiffón

Prerequisites

This subject does not have any pre-requirement

Objectives and Contextualisation

- 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

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 theoretical classes in the classroom, correspond to a master methodology in which the teacher will make a brief theoretical presentation of the subject matter of study.
- The practical classes will complement the theory given in the classroom and consist of developing exercises and individual or group work, in which the concepts explained in the theory part will be put into practice. Subsequently, a common set-up will be carried out, from which the corresponding academic conclusions will be shown.
- The autonomous activities outside the classroom will correspond to the individual study as well as the resolution of the exercises and works proposed by the teacher. These activities will be posted on Moddle for evaluation.
- The evaluation activities will serve to evaluate the knowledge and competences acquired by the students, according to the criteria presented in the following section.
- The tutorials with the teaching staff will be arranged by email

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
Master Classes	40	1.6
Type: Supervised		
Supervised training activities	12	0.48
Type: Autonomous		
Autonomous training activities	94	3.76

Assessment

WRITTEN INDIVIDUAL TEST (A GLOBAL REVIEW OF THE TWO SUBJECT AT THE END OF THE SUBJECT IS DONE)

The theoretical test will be on Block 1 and Block 2 and will count 50 percent of the allocation note. The test will consist of 60 multiple answer questions, both theoretical and practical. Each question will have a certain value (which the teacher will determine and communicate) and a value determined for each unanswered or unanswered question (which the teacher will determine and communicate). If no more than each part of the block the learner will go to recovery from the suspended block. The minimum grade for recovery is 3.5.

Important: An unsubmitted to one of the tests is equivalent to a 0. In case of justified absence from the test, one can talk to the teacher to find an alternative form of assessment for that test.

CONTINUED ASSESSMENT (50%)

Alumna will have to do tasks with respect to the required reading of the subject's bibliography section

RE-EVALUATION: Minimum grade for access to retrieve the assignment is 3.5 (in the final exam)

In the event of not exceeding the allocation according to the above criteria (continued evaluation), a recovery test can be carried out on the scheduled date in the schedule, and it will cover the full content of the programme. To participate in the recovery, the student must have been previously assessed in a set of activities, the weight of which amounts to a minimum of two-thirds of the total allocation rating. However, the grade to be entered in the learner's file is a maximum of 5-Approved.

The student who needs to change an assessment date must submit the request by filling in the document in the MOODLE.

PLAGIARISM: Without prejudice to other disciplinary measures deemed appropriate, and according to current academic rules, "in case the student performs any irregularities that may lead to a significant variation in the grade of an assessment act, he will qualify with a 0 for this assessment, regardless of the disciplinary process that can be instructed. in the event of several irregularities in the assessment acts of the same subject, the final qualification of this assignment will be 0". Tests/tests may be written and/or oral at the discretion of the faculty.

Lights that re-grade the subject: In relation to pupils who have to re- course the subject, it should be stressed that the assessment methodology is the same as for the other learners

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Ergonomy and psychosociology: Scrythian and/or oral tests	50%	0	0	6, 1, 2, 3, 5, 13, 7, 8, 10, 11, 12, 18, 17, 16, 14, 15, 19
Evaluation activities programmed in the Moodle and	50%	0	0	4, 6, 1, 2, 3, 5, 13, 7, 8, 9,

evaluable practices performed in class.	10, 11, 12, 18, 17, 16, 14, 15, 20, 19

Bibliography

Mandatory Bibliography:

Libro: Liderando el Bienestar? Integral: Orden o Caos

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Basic bibliography
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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.
Mondelo P.R .; Gregori E .; Comas S .; Castejon E .; Bartolomé E. (2000). Ergonomics 2: Comfort and thermal stress. Barcelona: Edicions UPC.
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 andHealth. 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. Availableat: 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