

**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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## Teaching groups languages

To check the language/s of instruction, you must click on "Methodology" section of the course guide.

## 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

Teaching language: Spanish

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

### CONTINUOUS ASSESSMENT

There will be 5 individual/group PACs corresponding to the topics studied in the subject.

Each PAC has a weight of 10% with respect to the final mark of the subject.

The remaining 50% corresponds to the theoretical exam. (25% Ergonomics and 25% Psychosociology).

The exam is averaged with continuous evaluation regardless of the grade obtained from 3.5

The total weighted average must be 5 points or higher in order to pass.

#### SINGLE EVALUATION

Students who opt for the single evaluation will take a final synthesis test of all the content of the course (50%) and will hand in a document containing the solutions to the 5 PECs of the course (10% each).

The date for this test and the delivery of the work of the subject will be the same scheduled in the timetable for the last continuous evaluation exam.

The same recovery system will be applied as for the continuous evaluation.

#### EVALUATION OF THE STUDENTS IN SECOND OR MORE SUMMONS

Students who repeat the course will have to take the scheduled tests and exams and hand in the course work on the dates indicated in the Moodle classroom.

#### SECOND CHANCE EXAMINATION

The student who does not pass the course, who does not reach 5 (total) out of 10, according to the criteria established in the two previous sections may take a final exam provided that the student has been evaluated in a set of activities, the weight of which is equivalent to a minimum of two thirds of the total grade of the course. If the student has not been evaluated of these two thirds because he/she has not taken the tests, he/she will obtain a grade of Not Presented, without the possibility of taking the final exam.

In this exam the whole of the contents of the subject that have not been passed in the continuous evaluation will be re-evaluated.

In the case of passing the final exam, the course will be approved with a maximum of 5, regardless of the grade obtained in the exam.

#### CHANGE OF DATE OF A TEST OR EXAMINATION

Students who need to change an evaluation date must submit the request by filling out the document that can be found in the EPSI Tutoring Moodle space.

Once the document has been filled in, it must be sent to the professor of the subject and to the coordination of the Degree.

#### REVIEW

At the time of each evaluation activity, the faculty will inform the students of the grade review mechanisms.

For single evaluation students, the review process will be the same.

#### OTHER CONSIDERATIONS

Without prejudice to other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the event that the student performs any irregularity that may lead to a significant variation in the grade of an act of evaluation, this act of evaluation will be graded with a 0, regardless of the disciplinary process that may be instigated. in the event that several irregularities occur in the acts of evaluation of the same subject, the final grade of this subject will be 0 ".

If during the correction there are indications that an activity or work has been done with answers assisted by artificial intelligence, the teacher may supplement the activity with a personal interview to corroborate the authorship of the text.

If there are unforeseen circumstances that prevent the normal development of the course, the teacher may modify both the methodology and the evaluation of the course.

## 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

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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.

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.

Reading recommended online:

<chrome-extension://efaidnbmninnbpcajpcglclefindmkaj/https://scielo.isciii.es/pdf/mesetra/v57s1/special.pdf>

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. Iistas. Available at: [http://www.istas.ccoo.es/descargas/m\\_metodo\\_istas21.pdf](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