

68903 - Health and safety

Syllabus Information

Academic year: 2023/24

Subject: 68903 - Health and safety

Faculty / School: 102 - Facultad de Derecho

Degree: 462 - Master's in Occupational Health and Safety

ECTS: 8.0

Year: 1

Semester: First semester

Subject type: Compulsory

Module:

1. General information

This subject is composed of four preventive disciplines distributed into three areas: Safety, industrial hygiene and ergonomics and psychosociology.

- The main objective of ergonomics is to teach students the physical-chemical and biological fundamentals of occupational disorders and diseases.
- The main objective of applied psychosociology is to integrate the psychosocial elements that are an obligatory part of the risk assessment in companies into the framework of the professional activity of the ORP technician.
- The main objective of occupational medicine and health surveillance is to familiarize students with occupational pathologies so that they can integrate this knowledge in their prevention work, whatever their specialty.
- The main objective of epidemiology at work is to transfer a population-based view of occupational health problems and to prepare for risk management by providing adequate risk measurement.
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These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda (<https://www.un.org/sustainabledevelopment/es/>) to contribute to some extent to the achievement of Goals 1, 2, 3, 4, 5, 8, 9, 10, 11 and 12.

2. Learning results

In order to pass this subject, the students shall demonstrate they has acquired the following results:

- **ERGONOMICS**
 - To identify the main objectives of ergonomics.
 - To recognize the role of the ergonomist within the team of experts in prevention
 - To identify and address the main characteristics of repetitive and musculoskeletal injuries.
 - To know and apply the methods available in ergonomic normative guides for the evaluation of working conditions and apply them appropriately to each situation.
 - To assume the importance of establishing collaborative ties in the development of occupational risk prevention activities.
- **APPLIED PSYCHOSOCIOLOGY**
 - To know, interpret the problems of interpersonal relations in the work environment and to solve them.
 - To know, interpret and apply the ORP regulations related to applied psychosociology.
 - To know the characteristics and functions of the different organizations and institutions related to ORP in psychosocial matters.
 - To know and apply different methods of psychosocial evaluation in the company.
- **OCCUPATIONAL MEDICINE AND HEALTH SURVEILLANCE**
 - To identify the main objectives of the discipline.
 - To recognize the role of the occupational physician and the company nurse within the ORP.
 - To identify the main characteristics of occupational diseases and accidents at work and their approach from this discipline.
 - To identify ethical and legal issues in the context of occupational disease and pathology and learn about the

integration of patients' rights in the setting of occupational pathology.

- To know the importance of establishing collaboration ties that allow the development of the ORP activity.
- OCCUPATIONAL EPIDEMIOLOGY
 - To discuss the usefulness of the epidemiological approach to occupational health problems.
 - To differentiate the structure and operation of an occupational health information system.
 - To differentiate the different types of variables that can be used in epidemiology.
 - To select the variables and measurement scales that provide the best information for an epidemiological study.
 - To list the characteristics that a measuring instrument must have.
 - To differentiate the concepts of error and bias.
 - To differentiate between ratio, proportion and rate.
 - To use the concepts of population at risk, incidence, prevalence, survival and lethality.
 - To analyse the differences between incidence density and cumulative incidence.
 - To define and discuss the concept of risk in epidemiology.
 - To differentiate absolute risk, attributable risk, relative risk and etiologic risk fraction.

3. Syllabus

ERGONOMICS

- Concepts and objectives:
- Ergonomic risks.
- Geometric ergonomics, temporal ergonomics.
- Repetitive microtrauma injuries.
- Environmental conditions in ergonomics.
- Conception and design of the workstation.
- DVS and INSHT Guide to screens. Physical workloads. INSST Guide to loads.

APPLIED PSYCHOSOCIOLOGY

- Introduction to psychosocial risks.
- Introduction to evaluation methodologies.
- Job stress.
- Professional burnout and psychological harassment at work.

OCCUPATIONAL MEDICINE AND HEALTH SURVEILLANCE

- Introduction to Occupational Medicine. Ethical and legal considerations.
- Health Surveillance and Work-Related Pathology.
 - Health Surveillance Protocols. Promotion of workers' health.
 - Occupational accidents and occupational illnesses. Derived disabilities
- Expertise in the field of Occupational Medicine.
- Scientific Research in Occupational Medicine and collaboration between the different specialties of occupational risk prevention

OCCUPATIONAL EPIDEMIOLOGY

- Introduction to occupational epidemiology.
- Type of studies in occupational epidemiology
- Information systems in occupational epidemiology

4. Academic activities

T1: master classes with students active participation

T2: Practical exercises related to the syllabus-

5. Assessment system

The student must demonstrate achievement of the intended learning results through the following assessment activities:

ERGONOMICS Students' progress and the acquisition of competencies will be evaluated by means of continuous evaluation that meets the following criteria: At the end of each class, one hour will be dedicated to the resolution of a case study related to the topic taught.

The following will be valued:

- Order in the development of the issues
- Understanding the subject matter
- Results - Decisions on results
- Originality

GLOBAL EXAM: The test will be carried out individually in the classroom or classrooms. It consists of two parts:

- Multiple choice questions: 30 questions with four possible answers of which only one is true. Incorrectly answered questions will subtract 0.25 points from the overall grade of the exam. This evaluation represents a maximum of 50% of the final grade (5 points). The minimum value for this grade to be averaged with the rest of the evaluation tests is 2.5 points (Pass)
- Solving a practical case: Students must solve a practical case similar to those solved during the academic year in class. The individualized resolution of this case will be evaluated for a maximum of 50% of the final grade (5 points). The minimum value for this grade to be averaged with the rest of the evaluation tests is 2.5 points (Pass)

Tests for non-attendance students or those who present themselves in other calls other than the first one.

The above includes the evaluation tests to be passed by the non-attendance student.

In calls other than the first one, the written exam will not include multiple choice questions, but development questions. The student must respond to two of the three proposed by the teacher. The rest of the evaluation will be the same as in the first call.

APPLIED PSYCHOSOCIOLOGY The student's progress and the acquisition of competencies will be evaluated by means of a continuous evaluation that meets the following criteria:

- Attendance and active participation in theoretical and practical classes and tutorials (10%).
- The completion of practical activities: descriptive report, presentation, content and defence of the work (40%).
- Attendance and active participation in seminars/workshops (10%).
- The completion of written and oral tests of theoretical and practical knowledge (40%).

GLOBAL EXAM: Resolution of 2 case studies of topics covered in the subject, with an evaluation of 5 points each, which will be assessed according to the expected learning results.

OCCUPATIONAL MEDICINE AND HEALTH SURVEILLANCE The student's progress and the acquisition of competencies will be assessed through continuous evaluation that meets the following criteria:

- Attendance and active participation in theoretical and practical classes and tutorials (10%).
- The completion of practical activities: descriptive report, presentation, content and defence of the work (40%).
- Attendance and active participation in seminars/workshops (10%).
- The completion of written and oral tests of theoretical and practical knowledge (40%).

GLOBAL EXAM The global evaluation will consist of a written test, with four questions from which the student will be able to choose three with an equal evaluation for each one of them.

OCCUPATIONAL EPIDEMIOLOGY The student's progress and the acquisition of competencies will be assessed through continuous evaluation that meets the following criteria:

- Attendance and active participation in theoretical and practical classes and tutorials (30%).
- Solving of cases and problems on the contents of the subject (70% final grade).

GLOBAL EXAM: Written multiple-choice test. 20 test questions with a final grade of 10 points.

For special situations not foreseen in the previous points, the guidelines indicated in the Agreement of December 22, 2010, of the Governing Council, which approves the Rules and Regulations of the University of Zaragoza, shall be followed at all times and under all circumstances.

Learning assessment.

According to the regulations in force, the results obtained will be graded according to the following numerical scale from 0 to 10, with the expression of one decimal, to which the corresponding qualitative grade may be added:

- From 0 to 4.9: Fail (S)
- From 5 to 6.9: Passed (A)
- From 7 to 8.9: Notable (N)

- From 9 to 10: Outstanding (SB)