

Academic Year/course: 2023/24

## 68905 - Ergonomics (speciality in ergonomics and applied psychosociology)

### Syllabus Information

**Academic year:** 2023/24

**Subject:** 68905 - Ergonomics (speciality in ergonomics and applied psychosociology)

**Faculty / School:** 102 - Facultad de Derecho

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

**ECTS:** 5.0

**Year:** 1

**Semester:** Second semester

**Subject type:** Optional

**Module:**

### 1. General information

The general objective of the ergonomics specialty is, within the context of prevention, the orientation towards two aspects, one of them concerning diseases or pathologies related to the physical load. The other is oriented to the evaluation of environmental conditions, but not from the hygiene point of view, but from the ergonomic one. It is more oriented to comfort and to the good adaptation of the work environment. By the time students reach this module, they have already received information on health concepts, so the specialty is more oriented to evaluation methods that students will be able to use in their work activity. These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs): Goal 3: Health and wellness; Goal 4: Quality education; Goal 5: Gender equality; Goal 8: Decent work and economic growth; Goal 9: Industry, innovation and infrastructure; Goal 10: Reduction of inequalities

### 2. Learning results

- 1.- To be able to identify ergonomic risks in different sectors of activity
- 2.- To be able to determine ergonomics intervention priorities.
- 3.- To know the techniques for design and evaluation in ergonomics.
- 4.- To be able to integrate ergonomics in companies.
- 5.- To have sufficient technical knowledge to plan ergonomic intervention projects.
- 6.- To encourage the development of ergonomic projects with technical and economic feasibility.

### 3. Syllabus

- 1.- Physical work: energy consumption
- 2.- Physical work: biomechanics.
- 3.- Anthropometry. Dimensional relationships.
- 4.- Musculoskeletal and overload injuries.
- 5.- Ergonomic evaluation methods.
- 6.- Integral design of workstations. Cost Benefit Analysis

### 4. Academic activities

The teaching is face-to-face in the classroom indicated by the Faculty of Law and is developed through lectures and presentation of practical cases.

### 5. Assessment system

First call: 1.- Problem solving and exercises. During the classes, practical exercises will be solved individually or in groups. This

part of the evaluation must be carried out once per academic year, regardless of the call. In case the student does not pass or does not attend the first exam, the resolution of the practical cases will be valid for the second exam. These assignments must be handed in at the end of each class. The resolution of these practical cases represents a maximum of 20% of the final grade (2 points). 2.- Written test. This test will be carried out individually in the classroom or classrooms. It consists of two parts: Multiple choice questions: 20 questions with four possible answers of which only one is true. Incorrectly answered questions will subtract 0.33 points from the overall grade of the exam. This evaluation represents a maximum of 50% of the final grade (5 points). Solving a practical case: After the completion of the previous test, a practical case study similar to those that have been carried out in the subject activities will be presented. The individualized resolution of this case will be evaluated for a maximum of 30% of the final grade (3 points).

In the case of not taking the first call or not having passed it, in the second call the evaluation will consist of:

Written test: This test will be carried out individually in the classroom or classrooms. It consists of two parts: Development questions: Four questions will be asked of which the student must develop 3. The time to do the test will be one hour. This evaluation represents a maximum of 60% of the final grade (6 points).

Solving a practical case: Under the same conditions as explained above