# uc3m Universidad Carlos III de Madrid

## Speciality in ergonomics and psychology

Academic Year: (2022 / 2023) Review date: 20-05-2022

Department assigned to the subject: Social and Private International Law Department

Coordinating teacher: IGLESIAS MARTINEZ, VIRTUDES

Type: Compulsory ECTS Credits: 6.0

Year: 1 Semester: 2

## **OBJECTIVES**

Ability to apply legal standards in scenarios of ergonomic, psychosocial and organisational risks.

Knowledge and understanding of the concepts, theories and applications of ergonomics and psychology in specific areas and the consequences of these applications.

Ability to connect psychosocial and organisational aspects with specific practical aspects and occupational policies. Ability to use instruments that measure risk factors derived from ergonomics (measurement of thermal, acoustic and visual comfort) and specific methodologies to handle workload, repetitive movements and work postures (NIOSH, OCRA, STRAIN, INDEX, OWAS, REBA).

Understanding of how to design work posts.

Ability to establish assessment methods and psychosocial intervention procedures in business organisations. Ability to apply the knowledge acquired to real situations via practical cases and workshops to be undertaken in the classroom or in the specific work environment where the risk can be generated.

#### **DESCRIPTION OF CONTENTS: PROGRAMME**

- 1. Anthropometry. Understanding and design of work spaces and posts. Methodology of action.
- 2. Environmental ergonomic factors: Lighting in workplaces. Thermal environment. Noise and vibrations.
- 3. Musculoskeletal disorders: Overstraining and fatigue. Factors and pathologies. More vulnerable groups. Costs and strategies. Risk assessment and preventive measures.
- 4. Organisation of working hours: shift and night work. Legal framework. Determining factors in shift work. Problem. Organisation of work.
- 5. Assessment methodology. Psychosocial factor assessment methods. INSL risk identification method. National Institute for Occupational Health and Safety method. Other methods.
- 6. Psychosocial management. Detection of situations of risk. Common principles of psychosocial intervention. Levels of intervention. Good practises regarding occupational stress. Psychosocial and environmental factors. Intervention regarding the organisation of work and the individual. Specific psychosocial intervention.

# LEARNING ACTIVITIES AND METHODOLOGY

Lectures in which the fundamental conceptual contents the student must acquire will be developed. In addition to consulting the necessary manuals and a specific bibliography for certain matters which will be provided at the beginning of the four-month period, the student will be provided, in advance, with materials made by the professor to enable a more in-depth study of topics and the better following of explanations. These work materials will serve to introduce the debate and discussion of topics of greater interest to the both the professor and students.

Practical workshops in work groups, individual case studies, analysis of videos and other documents of interest, class debates.

Weekly tutoring hours.

### ASSESSMENT SYSTEM

The evaluation of continuous academic performance will be worth 40% of the final mark. This will be done in the following manner:

The completion of case studies, workshops, field work and seminars will constitute 30%. The ability of

the student to manage the documentation, their ability to resolve and apply quick, correct and efficient responses to the generally unforeseen circumstances that are presented, and their ability in searching for solutions in unregulated situations will be assessed.

Participation in debates, seminars and theory classes in addition to contributions to prior and individual or group work will constitute 10% of the mark.

The final exam will be a test on specific questions, and this will be worth 60% of the final mark. This test will not have less than 50 questions. Any student who has not performed sufficiently well in practicals to have passed them during the course must undertake a practical exam which will be assessed along with the grade from the final exam. This will help to check the student has acquired the established competences.

Percentage weighting of the Final Exam: 60

Percentage weighting of all other forms of assessment: 40

% end-of-term-examination: 50
% of continuous assessment (assignments, laboratory, practicals...): 50