Universidad Zaragoza

Academic Year/course: 2024/25

26833 - Ocular Prevention and Ergonomics at Work and in Sports

Syllabus Information

Academic year: 2024/25
Subject: 26833 - Ocular Prevention and Ergonomics at Work and in Sports
Faculty / School: 100 - Facultad de Ciencias
Degree: 297 - Degree in Optics and Optometry
ECTS: 6.0
Year:
Semester: Second semester
Subject type: Optional
Module:

1. General information

The subject has a basic orientation, so that the proposed activities are focused on the understanding and assimilation of the main fundamentals of occupational health prevention for future professionals of Optics and Optometry

Ocular prevention at work and in sport allows to take and apply in a synergic way the knowledge and skills acquired on Optics and Optometry throughout the degree, to identify and analyse the environmental and occupational risk factors that can cause eye health or functional problems.

In today's industry there are many varied and complex types of jobs. Any professional who engages in advising on the visual function will need to obtain accurate knowledge of the workplace and working conditions and of the demands on the worker. One of the objectives is to minimize stress on the visual system, which will result in efficient and safe visual performance. In addition, an assessment of the individual' s capabilities is required to determine if the visual skills match the visual needs of the job.

Consequently, the final objective of this subject is to know how to detect the specific visual needs of each profession and the workers who are below the required ocular standard, that is to say, the relation of the visual capacity with the work competence. This will require a general knowledge of the prevention of occupational hazards, labour legislation, promotion of visual health and the different programs of visual prevention and eye health.

The interest of this subject lies in the wide range of fields in which it can be applied at a professional and labour level , since its objective is to encourage the student to apply the assimilated knowledge in the resolution of practical problems related to the study of visual ergonomics. It will also encourage the application of the basic steps to correctly prescribe treatment to restore visual function or improve visual performance. Thus, this subject will clearly enhance their employability in many industrial sectors

The subject is structured in thematic units distributed in expository activities and dynamic activities . The combination of theoretical classes in a large group and practical classes in small groups, the realization of individual work and the special importance of the student's personal study.

Attendance to all lectures is recommended and attendance to the dynamic activities is compulsory, since the student's participation is assessed in these activities.

2. Learning results

Explanatory activities: Participative master class:

It consists of the explanation of basic concepts related to the technical characteristics of the processes, using short exercises to support the understanding of the concepts. The explanation structured by the teacher of most of the topics that make up the program of the subject Ocular Prevention at Work and in Sport will be presented with the support of different audiovisual media, to facilitate the follow up by the student.

The objective of this method is for the student to acquire up-to-date and well-organized information from different sources that are difficult for them to access, as well as to facilitate the understanding and application of the specific procedures of the subject and to raise the motivation levels of the students towards the subject.

The active participation of the student in the master class will be encouraged by means of questions asked by the teacher or the students, which will give the possibility to discuss the topics to be covered.

The subject is structured in 40 theoretical hours of lectures that will be given during the second quarter . In this period of time, the most important aspects of the topics listed in the syllabus will be discussed.

Training on practical assumptions and problem solving individually and in teams, applying the theoretical bases of the subject and the exercise of communication.

The objective of this learning method is that students learn to identify, solve and make decisions, with cases that represent real situations related to their professional practice as well as to solve situations where different conflicts arise, always in relation to their profession. This allows them to build their own learning in a context that brings them closer to reality.

The teacher's role will be that of guide and moderator.

The subject is structured in 20 hours of classroom practice during the second semester of the academic year alternating with the theoretical classes. The practices will begin approximately one month later than the beginning of the master classes to allow time for the student to have theoretical knowledge of the subject and thus be able to deal with the cases that will be presented in them.

Autonomous student work

It is a form of learning in which the student assumes an important part of the responsibility for the organization of their work, adjusting it to their own pace without direct dependence on the teacher. It intends to promote initiative and personal creativity, the handling of documentary sources and the search and achievement of the conclusive synthesis. All this is a prerequisite for research work. It should represent motivation, fostered with the learning activities described above.

The individual non face-to-face work of the student will be for the study of contents related to the theoretical classes and for the analysis and resolution of different clinical cases related to the basic topics of eye health and risk prevention at work and in sports.

The teacher will give the students general instructions on how to carry out these works in class; individualized attention , to follow the development of the works, will be given through tutorials in the teachers' s office (by appointment) and through e-mail. Likewise, students may contact the teacher, as mentioned above, for other questions related to the subject.

3. Syllabus

TOPIC 1.-BASIC CONCEPTS IN OCCUPATIONAL HEALTH. RISK AND HEALTH. ERGOPHTHALMOLOGY. HISTORICAL BACKGROUND. OBJECTIVES AND FUNCTIONS.

TOPIC 2.-LEGAL FRAMEWORK IN THE FIELD OF OCCUPATIONAL HEALTH AND PREVENTION OF OCCUPATIONAL HAZARDS, I. OCCUPATIONAL MEDICINE AND HEALTH SURVEILLANCE OF WORKERS. SPECIALTIES OF PREVENTION.

TOPIC 3.-LEGAL FRAMEWORK FOR OCCUPATIONAL HEALTH AND SAFETY AND OCCUPATIONAL RISK PREVENTION, II. SPANISH HEALTH ORGANIZATION IN THE FIELD OF OCCUPATIONAL HEALTH AND HYGIENE AT WORK.

TOPIC 4.-LEGAL FRAMEWORK FOR OCCUPATIONAL HEALTH AND SAFETY AND OCCUPATIONAL RISK PREVENTION, III. CONCEPT OF OCCUPATIONAL ACCIDENT AND OCCUPATIONAL DISEASE. DERIVED SITUATIONS.

TOPIC 5.-OPHTHALMOLOGIC PATHOLOGIES OF OCCUPATIONAL ORIGIN. NEW LINES OF ACTION IN THE COMMUNITY EUROPE.

TOPIC 6.-OCULAR PATHOLOGY AND CHEMICAL RISKS. ACCIDENTS DUE TO CAUSTICS.

TOPIC 7.-OCULAR PATHOLOGY BY PHYSICAL AGENTS IN THE WORKPLACE. CHARACTERISTICS, EFFECTS, EVALUATION AND CONTROL. DATA DISPLAY SCREENS.

TOPIC 8.-PATHOLOGY BY BIOLOGICAL AGENTS IN THE WORKPLACE. EFFECTS, EVALUATION AND CONTROL.

TOPIC 9.-EYE HEALTH AND PSYCHOSOCIAL RISKS. ASSESSMENT AND PREVENTION.

TOPIC 10.-FIRST AID IN OPHTHALMOLOGY. OCULAR ACCIDENTS. COMPLEMENTARYTESTS.

TOPIC 11.-OPTICS AND SPORTS MEDICINE.

TOPIC 12.-OCCUPATIONAL RISKS AND OPTICS. WRITING OF CLINICAL-LABOR RECORD.

4. Academic activities

The subject will consist of 40 theoretical classes and 20 practical classes.

The subject is structured in 20 hours of classroom practice during the second semester of the academic year alternating with the theoretical classes. The practices will begin approximately one month later than the beginning of the master classes to allow time for the student to have theoretical knowledge of the subject and thus be able to deal with the cases that will be presented in them.

The practical cases will be provided by the teacher throughout the term in paper or computer support and will be solved and discussed in class.

The deadline for the written presentation of the student's autonomous work is the first school day of May

The practical classes are distributed as follows

1. General first aid course
2. Case studies
3. Ocular prevention plan in the company

5. Assessment system

Continuous assessment:

Weighted average of a series of evaluation activities detailed below:

Active participation in theoretical and practical classes.

Resolution and study of real case studies that the teacher will assign and that the students, individually or in small groups , will have to solve and present orally in class. It is intended to raise debate as to the possible discrepancy in the resolution of the cases.

Aspects or qualities to be valued in these activities.

The evaluation criteria for participation in the practices:

1º. Resolution of cases. It will be valued that the practices are correctly carried out in the time foreseen. The solution must be properly argued.

2º. Active participation. Active participation and a positive and respectful attitude of each of the members of the group or individual towards the teacher and the rest of their colleagues during the practice sessions will be positively valued.

3º. Group way of working In the case that the practices are carried out in small groups, it will be assessed that each and every member of the group has mastered all the contents and aspects of the report submitted, having all of them made contributions of equivalent value during the preparation of the same.

4º The answers to the questions posed in relation to the practical sessions will be evaluated, which the students must submit in writing on the date indicated by the teacher.

5º In order to be eligible to pass the practical part by continuous evaluation, it is necessary to attend and complete all the practical sessions (if this requirement is not fulfilled, the student will have to take the practical part of the global test)

Work to be done individually or in small groups (2 students)

Description

This test consists of individual or small group work and involves the design of a general visual prevention plan in a given company whose work activity can be chosen by the students.

Written examination. Individual test

Description. This is an objective test consisting of a written multiple choice test.

Theory exam: It will consist of 30 multiple-choice questions, with five possible answers, only one valid answer and no negative points are considered . The questions are of a theoretical nature and deal with the subject matter explained in class.

The cut-off point for this exam is set at 21 correct answers.

GRADING SYSTEM: The final grade for the subject results from the following weighting:

- 15% of the grade for individual work
- 15% case studies
- 70% the grade of the final theoretical exam

Global test:

The student who, due to duly justified special circumstances, has not been able to complete any of the parts of the subject will have the option of taking a global test that will consist of a written test of the theoretical content of the subject and a theoretical-practical exam on the practices. Individual work will be indispensable to pass the subject.

6. Sustainable Development Goals

3 - Good Health & Well-Being
5 - Gender Equality