

ENVIRONMENTAL AND OCCUPATIONAL OPTOMETRY (2015-16)**GENERAL INFORMATION**

Code 24042

ECTS Credits 6

Departments and areas

Department	Area	Area	Report R.
OPTICS, PHARMACOLOGY AND ANATOMY	OPTICS	YES	YES

Studies

DEGREE IN OPTICS AND OPTOMETRY

Context of subject

The main objective is the future graduate was able to apply synergically the applied and theoretical knowledge acquired about Optics and Optometry along his/her degree for indentifying and analyse environmental and occupational hazards causing eye health problems or visual impairment (low visual performance). In this way, with an integral approach of the degree, the future graduate will can take right decisions, from interdisciplinary and health legislation, in each specific case to prescript a treatment for recovering visual function, or improving visual performance.



OBJECTIVES

Subject objectives/competences (2015-16)

Understand the link among the three pillars of ergonomics (user-task-environment) and its implementation in Vision Sciences.

Know and apply different types of protocols for doing a right clinical history according to the patient profile and its context (workplace, free activities, etc).

Know the functional limits of human vision and its relationship with age, as well as at occupational contexts and free activities, linking with the task visibility factors.

Acquire ability for examining, give diagnosis, and manage visual anomalies, with special relevance in the differential diagnosis related with occupational and free activity context.

Evaluate eye hazards in occupational or free-time activities under radiant energy exposures, as well as continuous spectrum light sources or laser, and understand the fundamentals of radiometric control for avoiding eye injuries.

Identify and analyse environmental and occupational hazards causing eye injuries (mechanic, chemical, electric, etc)

Acquire ability for evaluating the visual performance of any patient and propose the most right treatment (advices, optical prescription, environment design, visual therapy, etc). Design a general scheme of an visual and eye prevention programme for any type of company.

Know the fundamentals and techniques in health education and the main general programmes of monitoring of visual health where the optometrist should contribute from a collaborative approach with other health professionals, in order to the optometrist can apply, if necessary, as visual health primary expert.

Communicate and inform to patient about all tests and instructions to be applied on him/her clearly explaining the final results and their diagnosis.

Know and locate the international and national standards related to visual and eye health in each context.



CONTENTS

Theoretical and practical contents (2015-16)

B1: Human visual performance and visual health surveillance

- T1: Functional limits of human vision
- T2: Visual performance
- T3: Visual health surveillance

B2: Environmental issues and design of visual environment

- T4: Radiant energy and hazards for human vision
- T5: Lighting
- T6: Design of visual environment
- T7: Hazards for visual and ocular injuries

B3: Types of tasks and specific visual requirements

- T8: Displays
- T9: Driving
- T10: Sports
- T11: Learning for special groups



EVALUATION

Instruments and criteria of Evaluation 2015-16

Continuous assessment, 70 %, based on the management of individual, collaborative and cooperative proposals in class and monitored at attendance level and virtually, of student involvement in class, tutoring, laboratory activities and other resources additionally described in the subject syllabus. The evaluation also includes a written final exam (final test) finishing semester, with a weight lower than 30 % total.

Type	Criterion	Description	Ponderation
FINAL TEST	Six long questions, equally weighted, about applied and theoretical issues assimilated during the semester with conventional instrumental resources (calculator and formulae sheet)	Final written exam	30
ACTIVITIES OF EVALUATION DURING THE SEMESTER	Oral presentation of a complementary topic of this subject, previously planned in the TGR session	Teamwork	25
ACTIVITIES OF EVALUATION DURING THE SEMESTER	Comments in subject blog and discussions participations in UACloud	Monitored individual work	20
ACTIVITIES OF EVALUATION DURING THE SEMESTER	Tasks to be done by sharing. Submission of practices reports.	Collaborative work	25