

Academic Year/course: 2022/23

## 26823 - Low Vision

### Syllabus Information

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**Academic Year:** 2022/23

**Subject:** 26823 - Low Vision

**Faculty / School:** 100 - Facultad de Ciencias

**Degree:** 297 - Degree in Optics and Optometry

**ECTS:** 6.0

**Year:** 4

**Semester:** Second semester

**Subject Type:** Compulsory

**Module:**

## 1. General information

### 1.1. Aims of the course

The subject of low vision is a four-month required subject, which is taught in the fourth year of Optometry degree, in the second four-month period.

This subject belongs to the module Optometry (60 ECTS) and consists of 6 ECTS credits. 1.2 credits will be held from the field of ophthalmology and 4.8 credits optical area.

The credits are allocated as followed:

- . Theoretical credits
- . Practical credits

The increasing number of patients with low vision in today's society, mainly due to the increased life expectancy and to medical advances, makes specialized training necessary to meet their visual needs. Among the professionals involved in the care of these patients, the role of Optical optometrist is of great importance, hence the need for this course.

The subject of low vision is a very specific subject for the kind of patients we will treat.

It is designed so that students who have studied more general subjects (within the module of Optometry, Pathology and Ocular Pharmacology and Optics), can apply their knowledge and adapt to the special characteristics of these patients.

Studying this subject, students develop analytical skills and are able to acquire the knowledge, skills and abilities in the field of optics and optometry, which are invaluable in order to become an efficient professional.

### 1.2. Context and importance of this course in the degree

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### 1.3. Recommendations to take this course

It is designed so that students who have studied more general subjects (within the module of Optometry, Pathology and Ocular Pharmacology and Optics), can apply their knowledge and adapt to the special characteristics of these patients.

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## 2. Learning goals

## 3. Assessment (1st and 2nd call)

### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

**The student must demonstrate that it has achieved the intended learning outcomes by the following evaluation activities**

Option A

Regular attendance at practical sessions is essential for this kind of assessment requirement.

Practical part 30 %

- . Continuous assessment practices (10%) assessing the development of practical reports, Cabinet clean and tidy with such practices as well as patient care is made.
- . Continuous assessment by partial tests, performing a guided case (40%), character within the period development of the teaching activities of the subject.
- . Final theoretical and practical exam in June completed the teaching activities of the subject (up to 50%).

Theoretical part 70 %

- . Written exams, quizzes and exercises (100 %)

No part with a grade lower than 4 will be averaged

Option B

This type of evaluation is not possible to apply where regular attendance at practices

Theoretical exam 70 %

Practical exam 30 %

No part with a grade lower than 4 will be averaged

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

**Learning process designed for this subject is based on:**

Master classes in big groups and seminars

Laboratory practices in small groups but carried out individually or part by part.

Exercises, questionnaires and individual cases resolution via moodle

Personalized tutorial

### 4.2. Learning tasks

This is a 6 ECTS course organized as follows:

AF1 (2 ECTS: 20 hours). Know the most frequent pathologies that cause low visión, as well as their functional implications.

AF2 (1 ECTS: 10 hours). Knowing and be able to perform all test included in the low vision optometric exam.

AF3 (0.5 ECTS: 5 hours). Correct understanding of the optometric evaluation test

AF4 (0.5 ECTS: 5 hours). Practical cases resolution

AF5 (0.5 ECTS: 5 hours). Knowing the visual aids existing in the market, as well as their application to rehabilitation.

AF6 (0.5 ECTS: 5 hours). Make a report about the low vision optometric attention given.

AF7 (1 ECTS: 10 hours). Visual aids adaptation correct evaluation and be able to perform a low vision complete report and transmitting functional applications caused in the visual daily life of apatient.

### 4.3. Syllabus

The course will address the following topics:

#### Section 1. Optometry:

Topic 1. The patient with low vision. History.

Topic 2. Visual acuity in low vision.

Topic 3. Optometric evaluation of the patient with low vision.

Topic 4. Magnification.

Topic 5. Optical aids

Topic 6. Optics of low vision aids.

Topic 7. Low Vision Case Studies.

#### Section 2. Ophthalmology:

Topic 1. Low vision concept and epidemiology.

Topic 2. Age -related cataracts and low vision.

Topic 3. Other causes of low vision and glaucoma.

Topic 4. Low vision of macular origin, causes and prescription I and II.

Topic 5. Optical aids in low vision.

Topic 6. Effects of visual impairment in everyday life. Rehabilitation of the visually handicapped.

#### Laboratory sessions

Session 1. Measurement of AV by choice of tests, aids in different pathological conditions

Session 2. Measuring the refractive objective for different eccentricities. Autorefractometre eccentricity. Off-axis and / or radical low vision retinoscopy simulators.)

Session 3. Visual acuity at distance and near simulators and test different low vision sight. Contrast sensitivity in patients with low vision.

Session 4. Objective and subjective in a patient with low vision refraction. Diagnostic procedures in low vision case management. Prismatic scanning based on the objectives.

Session 5. Operation of optical aids. Spectacle mounted telescopes and microscopes

Session 6. Actual patient.

### 4.4. Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the "Facultad de Ciencias" website and the department website (<https://ciencias.unizar.es>, ?).

### 4.5. Bibliography and recommended resources

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=26823>