COURSE DATA

DATA SUBJECT

Code: 47012
Name: Care for pathological patients
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2280 - Master's Degree in Advanced Optometry and Vision Sciences	Facultat de Física	1	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2280 - Master's Degree in Advanced Optometry and Vision Sciences	Materias Optativas	ELECTIVES

COORDINATION

ESTEVE TABOADA JOSE JUAN

SUMMARY

This course aims to equip the optician¿optometrist with the fundamental knowledge to identify, understand, and classify the main ophthalmic pathologies encountered in daily practice. Through a clinical and hands-on approach, it will cover the key signs and symptoms of ocular diseases requiring urgent, preferential, or deferred referral, as well as those that can remain under optometric observation. Students will learn to distinguish physiological from pathological findings, interpret relevant anamnesis and basic examination results, and communicate effectively with ophthalmologists to optimize patient care.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

It is recommended to have a strong foundation in general clinical optometry and a basic understanding of ocular physiology and anatomy.

COMPETENCES / LEARNING OUTCOMES

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Assess cases that require referral to a specialist in ocular pathology.

Carry out differential diagnosis between normal and abnormal findings.

Communicate and inform the patient about all procedures and tests to be performed and clearly explain the results and diagnosis.

Conduct a clinical history appropriate to the patient's profile.

Identify the elements that can help protect or restore the ocular surface.

Inform patients about the importance of preventing conditions that lead to alterations of the ocular surface.

Recognise abnormal signs related to ocular pathology.

Understand the most prevalent pathologies with ocular impact.

Understand the problems affecting the ocular surface and their visual impact as well as the elements that can help protect or restore it.

Understand vision problems of functional or pathological origin.

DESCRIPTION OF CONTENTS

Topic 1. Preliminary examination, patient communication and gathering of useful information
This topic introduces students to the essential skills for conducting an effective initial clinical assessment of the ophthalmic patient. It covers communication strategies for obtaining a clear, comprehensive anamnesis focused on pathology detection, as well as techniques to facilitate the collection of key symptoms. Students will learn to distinguish relevant functional and structural findings from an optometric perspective and review key questions for differential diagnoses or identifying cases requiring immediate referral. Basic triage and visual risk categorization principles are also included.

Topic 2. Complementary examination techniques
Review of advanced procedures for inspecting specific ocular structures, such as slit-lamp biomicroscopy, tonometry, retinoscopy, perimetry, and contrast sensitivity tests, tailoring each technique to the suspected pathology.

Topic 3. Visual prevention and primary care in special population groups
Application of optometric strategies for promoting ocular health and early detection of visual disorders in clinical, school, and community settings. The optometric exam is adapted to groups

with particular clinical characteristics, such as older adults, pediatric patients, individuals with disabilities, or those with chronic illnesses.

Topic 4. Clinical pathology of the ocular surface and adnexa
Analysis of the most common disorders of the ocular surface (conjunctiva, cornea, tear film) and adnexa (eyelids, eyelashes, lacrimal system). Students will learn to recognize external signs like hyperemia, discharge, eyelid edema, corneal staining, or blepharitis, distinguish severe from manageable conditions, and apply referral criteria.

Topic 5. Intraocular pathologies causing visual alterations
Study of lens, vitreous, and optic neuropathies, focusing on identifying conditions based on visual complaints (blurry vision, floaters, scotomas) that require monitoring, preferential referral, or urgent care. Includes interpretation of fundus examination, OCT, and retinal imaging.

Topic 6. Retinal pathology
Detailing major retinal diseases with visual impact, such as age-related macular degeneration, diabetic retinopathy, and retinal detachment, emphasizing early detection, interpretation of complementary tests (OCT, fundus photography, Amsler grid), and criteria for urgent, preferential, or routine referral.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	20,00
Seminar	10,00
Total hours	**30,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	20,00
Independent study and work	20,00
Preparation of lessons	0,00
Preparation for assessment activities	5,00
Resolution of case studies	0,00
Total hours	**45,00**

TEACHING METHODOLOGY

The course combines lectures and seminars designed to promote both knowledge acquisition and active student engagement.

Lectures:
An expository (lecture-style) approach is used, supported by audiovisual materials (images, videos and diagrams) projected to facilitate understanding of concepts and techniques.

Seminars:
Questionnaires and exercises based on the covered content are proposed, encouraging discussion and practical application of the studied procedures.

EVALUATION

The assessment system combines individual tests and group assignments, with the following components and weightings:

- Theoretical or theoretical-practical exam: face-to-face evaluation through written tests that may include multiple-choice questions, essay questions, or clinical cases. It accounts for 80 % of the final grade.

- Assessment of group or individual assignments: preparation of reports, presentations, or literature reviews. Its weighting is 20 % of the final grade.

This scoring system applies only to students taking the first examination period. The second examination period will be assessed with a single theoretical exam worth 100 % of the grade, without considering continuous assessment.

REFERENCES

Basic references:

- Kanski J.J., Bowling B. *Oftalmología Clínica: Una aproximación sistemática.* Elsevier España; 2020. ISBN 978-8491130031

- Friedman N.J., Kaiser P.K., Trattler W.B. *The Massachusetts Eye and Ear Infirmary Illustrated Manual of Ophthalmology.* Elsevier; 2020. ISBN 978-0323613323

- Gerstenblith A.T., Rabinowitz M.P. *The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease.* Wolters Kluwer; 2021. ISBN 978-1975160753

Complementary references:

- American Academy of Ophthalmology. *Basic and Clinical Science Course (BCSC): Section 2 - Fundamentals and Principles of Ophthalmology*. American Academy of Ophthalmology; 2023.

- American Academy of Ophthalmology. *Basic and Clinical Science Course (BCSC): Section 5 - Neuro-Ophthalmology.* American Academy of Ophthalmology; 2023.

- American Academy of Ophthalmology. *Basic and Clinical Science Course (BCSC): Section 12 - Retina and Vitreous.* American Academy of Ophthalmology; 2023.

- Yanoff M., Duker J.S. *Oftalmología*. Elsevier España; 2014 (5.ª ed.). ISBN 978-8491135548.