



## Course guide

# 370812 - CLTECDIAG - (Ang) Clínica de Tècniques Diagnòstiques en Salut Ocular

Last modified: 11/07/2023

**Unit in charge:** Terrassa School of Optics and Optometry  
**Teaching unit:** 731 - OO - Department of Optics and Optometry.

**Degree:** MASTER'S DEGREE IN OPTOMETRY AND VISION SCIENCES (Syllabus 2022). (Compulsory subject).

**Academic year:** 2023    **ECTS Credits:** 3.5    **Languages:** Catalan, Spanish, English

## LECTURER

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**Coordinating lecturer:** Argemí Barella, Maria Núria  
Álvarez, Olga  
Ondategui Parra, Juan Carlos <https://futur.upc.edu/JuanCarlosOndateguiParra>

**Others:** Argemí Barella, Núria  
Álvarez, Olga

## DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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### Specific:

M-CE6. (ENG) Conocer los principios de funcionamiento de las distintas técnicas de examen en la práctica clínica: fotografía basada en la configuración Scheimpflug, topografía de discos de Plácido, Tomografía de Coherencia Óptica, aberrometría y pruebas electrofisiológicas, entre ellas. Interpretar los resultados de dichas técnicas para detectar signos de posibles patologías, aplicar tratamientos ópticos, remitir al especialista y utilizar los conocimientos en trabajos de investigación.

### General:

M-CG1. (ENG) Capacitar para el ejercicio de la profesión de óptico optometrista en áreas diversas de especialización clínica, como la atención a la discapacidad visual, las adaptaciones especiales de lentes de contacto, el control de la miopía, el uso de técnicas avanzadas de exploración visual o la visión infantil.

M-CG2. (ENG) Aplicar los modelos existentes de toma de decisiones clínicas, según la tipología de los pacientes, basándose en la evidencia, atendiendo, de forma especial, a la evidencia científica.

### Transversal:

M-CT2. (ENG) Sostenibilidad y Compromiso Social. Conocer y comprender la complejidad de los fenómenos económicos y sociales típicos de la sociedad del bienestar; tener capacidad para relacionar el bienestar con la globalización y la sostenibilidad; lograr habilidades para utilizar de forma equilibrada y compatible la técnica, la tecnología, la economía y la sostenibilidad.

M-CT3. (ENG) Trabajo en equipo. Ser capaz de trabajar como miembro de un equipo interdisciplinar, ya sea como un miembro más o realizando tareas de dirección, con la finalidad de contribuir a desarrollar proyectos con pragmatismo y sentido de la responsabilidad, asumiendo compromisos teniendo en cuenta los recursos disponibles.

M-CT5. (ENG) Tercera lengua. Conocer una tercera lengua, preferentemente el inglés, con un nivel adecuado oral y escrito y en consonancia con las necesidades que tendrán los titulados y tituladas.

M-CT6. (ENG) Perspectiva de género. (Text definitiu pendent de definir)

### Basic:

CB8. (ENG) Que los estudiantes sean capaces de integrar conocimientos y enfrentarse a la complejidad de formular juicios a partir de una información que, siendo incompleta o limitada, incluya reflexiones sobre las responsabilidades sociales y éticas vinculadas a la aplicación de sus conocimientos y juicios

CB9. (ENG) Que los estudiantes sepan comunicar sus conclusiones y los conocimientos y razones últimas que las sustentan a públicos especializados y no especializados de un modo claro y sin ambigüedades



## TEACHING METHODOLOGY

- . Participatory expository class of theoretical and practical content.
- . Active methodologies in the classroom (project-based learning (PBL), case studies, role-playing games, cooperative learning, ...).
- . Practical resolution class, with the participation of the students, of practical cases and/or exercises related to the contents of the subject
- . Reading of didactic material, texts and articles related to the contents of the subject.
- . Resolution of cases with real patients in health establishments

## LEARNING OBJECTIVES OF THE SUBJECT

Know and be able to apply to the professional practice of optics and optometry the operating principles of the different examination techniques in clinical practice: photography based on the Scheimpflug configuration, Placido disk topography, Optical Coherence Tomography, aberrometry and tests electrophysiological, among them.

Interpret the results of the different examination techniques to detect possible signs of pathology, apply optical treatments, refer to a specialist or use the results in research work.

Acquire and know how to apply knowledge of ocular pharmacology in clinical practice.

Know how to identify the signs and symptoms of the most common pathologies that affect society, to inform and refer the patient to the ophthalmologist.

## STUDY LOAD

| Type              | Hours | Percentage |
|-------------------|-------|------------|
| Hours small group | 28,0  | 32.00      |
| Self study        | 59,5  | 68.00      |

**Total learning time:** 87.5 h

## CONTENTS

### title english

#### Description:

- 1.- Corneal topography
- 2.- OCT optic nerve
- 3.- Macular OCT
- 4.- OCT-Angio
- 5.- Wide field retinography
- 6.- OCT anterior segment
- 7.- Corneal hysteresis

## ACTIVITIES

### Clinical Sessions

#### Description:

There will be 7 clinical sessions of 4 hours, where real patients who come from the referral of patients visited at the University Vision Center will be attended, for complementary tests and ophthalmological visit. In some sessions there will be 2-hour seminars.

**Full-or-part-time:** 28h

Laboratory classes: 21h

Self study: 7h



### Clinical Seminar

**Description:**

3 seminars of 2 hours will be held

The students will make the exhibition, defense and debate of clinical cases carried out in the clinical sessions.

The results of the different complementary tests that allow a differential diagnosis will be analyzed, as well as the most appropriate strategies and parameters for the follow-up of each case.

**Full-or-part-time:** 34h 30m

Laboratory classes: 7h

Self study: 27h 30m

### name english

**Description:**

Presentation, defense and debate of a clinical case carried out in the clinical sessions.

**Full-or-part-time:** 6h

Self study: 6h

### name english

**Full-or-part-time:** 9h 30m

Self study: 9h 30m

### name english

**Description:**

Exhibition and defense of a monographic theme.

**Full-or-part-time:** 9h 30m

Self study: 9h 30m

## GRADING SYSTEM

Continuous assessment.

The grade for the course is obtained in the following way:

- Clinical management and assistance (15%)
- Continuous evaluation of all cases handled. The clinical skills of visual examination, reasoning in the diagnosis, treatment and the introduction of all the data in the clinical history will be evaluated (45%)
- Presentation and individual exposition of clinical cases seen in the clinical sessions. (15%)
- Presentation and presentation of a theoretical seminar on one of the topics to be selected. (15%)
- Presentation of an activity of the instrumentation records of a clinical case seen in the clinical sessions. (10%)

In the event of suspending the subject, you will have the option to recover it through a reevaluation exam that will be carried out according to the general conditions established for each course by the UPC's Academic Regulations for Undergraduate and Master's Studies (NAGRAMA) and the particulars established by the FOOT with the following conditions:

1. You can only submit to the reevaluation if the overall grade obtained for the subject is equal to or higher than 3
2. Students with the grade Not Presented (NP) cannot take advantage of the reevaluation option.
3. The reevaluation will consist of a written exam (30%) and a clinical exam (70%)

If the reevaluation exam is passed (with a score equal to or higher than 5) the final grade of the subject will always be 5. Otherwise, the highest grade between the previous evaluation and the reevaluation will be maintained.



## EXAMINATION RULES.

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In the event of partial or total copying in any of the evaluations of the subject, the provisions of the General Academic Regulations of the UPC will apply:

"Irregular actions that can lead to a significant variation in the grade of one or more students constitute a fraudulent performance of an evaluation act. This action entails a descriptive grade of fail and a numerical grade of 0 for the evaluation act and the subject, without prejudice to the disciplinary process that may arise as a result of the acts carried out.

If the student considers the decision incorrect, she can file a complaint with the director or dean of the educational center and, if the answer is not satisfactory, she can file an appeal with the rector.

The total or partial reproduction of academic or research works, or their use for any other purpose, must have the explicit authorization of the authors.

It is up to the director or director or the dean of the educational center to resolve the allegations about the aspects not included in the regulations."

## BIBLIOGRAPHY

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### Basic:

- Anderson, Douglas R; Patella, Vincent Michael. Automated static perimetry. 2nd ed. St. Louis: Mosby, ccop. 1999. ISBN 0815143842.

- Agarwal, Amar. Dr Agarwals' textbook on corneal topography: including Pentacam and anterior segment OCT [on line]. 3rd ed. New Delhi: The Health Sciences, 2015 [Consultation: 15/02/2023]. Available on: <https://web-p-ebsohost-com.recurtos.biblioteca.upc.edu/ehost/ebookviewer/ebook?sid=baeec590-9667-4944-ae55-8b70dc4ba7ea%40redis&vid=0&format=EB>. ISBN 9789386056474.

- Kanclerz, Priotr; Khoramnia, Ramin; Wang, Xiaogang. "Current developments in corneal topography and tomography". Diagnostics [on line]. 2021, vol 11, núm. 8, p. 1466 [Consultation: 15/02/2023]. Available on: <https://www.proquest.com/docview/2565109659?fromopenview=true&parentSessionId=bbWWXdqTuhDuMi%2B7pod5XHEjkbKJ2xzVw2byWy1U08s%3D&pq-origsite=gscholar&accountid=15300>.