VNIVERSITAT DE VALÈNCIA

Course Guide
43865 Advanced optometry

COURSE DATA

Data Subject	
Code	43865
Name	Advanced optometry
Cycle	Master's degree
ECTS Credits	4.5
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
2175 - M.U. en Optometría Avanzada y Ciencias de la Visión 13-V.2	Faculty of Physics	1	First term

Subject-matter

Degree	Subject-matter	Character
2175 - M.U. en Optometría Avanzada y Ciencias de la Visión 13-V.2	1 - Advanced optometry	Obligatory

Coordination

Name	Department
MONSALVEZ ROMIN, DANIEL	280 - Optics and Optometry and Vision Sciences
TAUSTE FRANCES, ANA	280 - Optics and Optometry and Vision Sciences

SUMMARY

This subject is intended to provide students with the knowledge and optometric skills that allow them to develop their professional work in a clinical practice in which the doctor specializing in Ophthalmology and the Optician-Optometrist work together. The symptoms, signs and expected results of different diagnostic techniques related to ocular pathologies and conditions will be explained. It will be explained how an optometric examination should be conducted and what tests should be performed on a patient so that the specialist ophthalmologist can reach the final diagnosis of the pathology, and, finally, how to act at an optometric level with this type of patients will be analyzed in order to obtain maximum visual performance, according to the latest scientific advances.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

For this subject, prior knowledge of the structure and function of the visual system is required, for which the subjects of "Human and Ocular Anatomy" and "Ocular Pathology" must have been taught. They must also have knowledge about optometric analysis methods and optical compensation of the visual system, which have already been taught in the subjects of "Optometry", "Contactology", "Ophthalmic Optics" and the subject of "Optical and Optometric Instruments", all they are taught in the Degree of Optics and

OUTCOMES

2175 - M.U. en Optometría Avanzada y Ciencias de la Visión 13-V.2

- Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Students should demonstrate self-directed learning skills for continued academic growth.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- Know how to work in multidisciplinary teams reproducing real contexts and contributing and coordinating their own knowledge with that of other branches and participants.
- Participate in, lead and coordinate debates and discussions, be able to summarize them and extract the most relevant conclusions accepted by the majority.
- Use different presentation formats (oral, written, slide presentations, boards, etc.) to communicate knowledge, proposals and positions.
- Proyectar sobre problemas concretos sus conocimientos y saber resumir y extractar los argumentos y las conclusiones más relevantes para su resolución.
- Tener capacidad de análisis crítico de la información especializada en los ámbitos propios del máster.
- Tener un compromiso ético y responsabilidad social, tanto en lo que compete a la componente asistencial ligada a la profesión de óptico-optometrista como a lo que respecta a la investigación clínica.

- Proporcionar conocimientos avanzados y criterios específicos de actuación clínica para la evaluación, diagnóstico diferencial y los tratamientos de los diferentes problemas visuales propios del ámbito de la Optometría.
- Ejercer actividades de planificación y gestión en servicios de salud públicos y privados.
- Relacionar las manifestaciones oftalmológicas, enfermedades sistémicas, neurológicas y endocrinas con las alteraciones visuales más prevalentes.
- Analizar y comprender los nuevos métodos de exploración visual, en especial en su aplicación a visión pediátrica, geriátrica y nuevas técnicas de compensación.
- Tener capacidad de trabajo en equipos multidisciplinares en el área de las ciencias de la salud.
- Conocer la legislación aplicable en el ejercicio profesional, con especial atención a las materias de de igualdad de género entre hombre y mujeres, derechos humanos, solidaridad, protección del medio ambiente y fomento de la cultura de la paz.
- Permitir al estudiante la mejora de conocimientos en los diferentes campos propios de la atención visual, desde la atención primaria a la especializada en clínica pública o privada.
- Manejo de técnicas optométricas para obtener el mejor resultado visual.
- Capacidad de interpretación y análisis de pruebas oftalmológicas de diagnóstico clínico.
- Manejo de búsqueda de información bibliográfica científica.

LEARNING OUTCOMES

To detect the problems and limitations of patients with specific characteristics. To be able to manage the most appropriate clinical tests in the most appropriate conditions.

To be able to choose the clinical test that best suits for a particular purpose (type of dysfunction to detect and type of information we want to obtain to the patient).

To acquire fluency in the usual interpretation of clinical trials. To know how to evaluate the reliability of a measurement with a clinical device.

To understand the difficulties that patients must undergo in a pathological clinical examination (anxiety about the outcome, difficulty of the task, fatigue, impaired comprehension, illiteracy, very low visual function) and to develop strategies to minimize them.

To acquire the ability to decide at any time the most appropriate optometric solution for each individual patient.

To know the limitations of optometric compensation. To know how to evaluate when these solutions are not the best choice for the patient and when we must refer them to other specialist.

DESCRIPTION OF CONTENTS

1. Pathological and non-pathological patients with optometric needs

Characteristics of the healthy eye in the pediatric, adult and geriatric population. Definition of a pathological patient in the pediatric, adult and geriatric population. Effect of age and environmental factors on ocular and visual health.

2. Role of the optometrist in the general Optometry and Ophthalmology consultation and in ophthalmological emergencies

Development of a complete history and guidelines for its correct interpretation for clinical decision making. Advances in the optometric correction of refractive errors. Strategies to guide the optometric examination in an effective and efficient way in the optometric / ophthalmological consultation.

3. Role of the optometrist in the ophthalmology consultation specialized in orbit/oculoplasty and lacrimal ducts

Symptoms and signs related to more characteristic conditions of the orbit and lacrimal ducts and how to approach their optometric exam.

4. Role of the optometrist in the Pediatric Ophthalmology and Strabology consultation

The most common symptoms and signs in pediatric ophthalmology and strabology consultations and how to approach their optometric exam.

5. Role of the optometrist in the ophthalmology practice specialized in anterior pole (tear, cornea, conjunctiva, pupil and crystalline lens)

Most common symptoms and signs in the Optometry/Ophthalmology practice specialized in anterior pole and how to approach their optometric examination.

6. Role of optometrist in the Ophthalmology consultation specialized in Glaucoma and Posterior Pole

Most characteristic usual symptoms and signs in the Optometry/Ophthalmology consultation specialized in posterior pole and glaucoma and how to approach their optometric examination.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	24,00	100
Seminars	12,00	100
Preparation of evaluation activities	10,00	0
Preparing lectures	42,00	0
Preparation of practical classes and problem	18,00	0
TOTAL	**106,00**	

TEACHING METHODOLOGY

The subject in the in-person modality has two differentiated methodology lessons:

(1) Theoretical classes

(2) Seminars

In the theoretical classes the contents of the subject will be exposed, alternating practical and theoretical cases of all the topics to be treated. In addition, students will be encouraged to take their own clinical cases to discuss and analyze in the classes.

The seminars will be in-person classes of three different types: there will be classes in which each of the students, individually, will present cases of articles related to the theme of the subject. The student will be required to present a presentation of no more than 15 minutes in which they will have to expose the paper and make a critical value judgment on it, assessing the measurement procedure and the conclusions reached by the authors. In addition, in case of availability, guest speakers and/or professionals who work on matters related to the subject could be counted on. And, finally, seminars will be left to solve questions and problems raised from the subject or by the students themselves related to the subject matter.

In the online modality, students will be provided with the slides and additional material to be able to follow the subject. An online session will be planned to resolve the doubts found during the preparation of the subject at the end of the course.

EVALUATION

The subject will be assessed on the basis of the following criteria (out of 10 points):

a. 6.5 points: all students enrolled in the subject, regardless of the modality in which they take the master's degree, will have to take an exam. This exam accounts for 65% of the mark for the course and consists of a written test with theoretical and practical questions on the knowledge acquired in the theoretical classes and seminars. This test will consist of a series of multiple-choice questions and several essay questions. The multiple-choice questions will have several answers to choose from, but only one valid solution. For every three invalid answers, one valid answer will be invalidated.

b. 2 points: students' personal work assessed by means of an individual work. Students in the in-person mode will present the work in the seminar sessions, while students in the online mode will present it using videos.

c. 1.5 points: evaluation of work developed jointly by several students. On-site students will present their work in the seminar sessions, while online students will present it using videos.

The total mark for the course will be the sum of the exam and personal work sections, with a maximum of 10 points. The grade required to pass the course will be 5 points. It will be a requirement to have a minimum of 50% in each of the sections, given that, although the sum of the different sections is equal to or higher than 5 points, if this minimum is not reached in each of the parts, the course will not be passed.

REFERENCES

Basic

- Optometría Pediátrica. Antonio López Alemany. Ed Ulleye, 2004.
- Vision and aging. A.A. Rosenbloom, Jr; M.W. Mogan, Ed. Butterworth-Heinemann, 1992.
- Oftalmología clínica. Jack J Kanski. Elsevier, 2004.

Additional

- Artículos seleccionados de varias revistas - Articles seleccionats de diverses revistes - Selected articles from various journals:
  Journal of Cataract and Refractive Surgery, Ophthalmology, Journal of Refractive Surgery, European Journal of Ophthalmology, etc.