

**COURSE DATA****Data Subject**

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|----------------------|---------------|
| Code | 34301 |
| Name | Optometry III |
| Cycle | Grade |
| ECTS Credits | 4.5 |
| Academic year | 2019 - 2020 |

Study (s)

| Degree | Center | Acad. year | Period |
|---------------------------------------|--------------------|-------------------|---------------|
| 1207 - Degree in Optics and Optometry | Faculty of Physics | 3 | First term |

Subject-matter

| Degree | Subject-matter | Character |
|---------------------------------------|-----------------------|------------------|
| 1207 - Degree in Optics and Optometry | 12 - Optometry | Obligatory |

Coordination

| Name | Department |
|-----------------------------|--|
| FERRER BLASCO, MARIA TERESA | 280 - Optics and Optometry and Vision Sciences |

SUMMARY

This subject has as general aim give to the student an as wide as possible vision of the adjustments of contact lenses in special cases and complications of their use. As it is reflected in the program, the above mentioned methods are directed to evaluate such specific aspects as the adjustment of contact lenses for the correction of the farsightedness as well as of the introduction to the orthokeratology.

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 suitable, to have dealt and overcome the subjects relating to Optometry, as Optometry I and Optometry the IIInd. As well as subjects of the module of basic training like Physics, Geometric Optics, Anatomy and Physiological Optics. And subjects of the module of Optics like Optical Instruments and Optométricos and Ophthalmic Optics.

OUTCOMES

1207 - Degree in Optics and Optometry

- To have and to understand the fundamentals of Optometry for its correct clinical and healthcare application.
- Knowing how to apply the knowledge acquired to professional activity, knowing how to solve problems and develop and defend arguments.
- Being able to gather and interpret relevant data to make judgments.
- Being able to transmit information, ideas, problems and solutions to both a specialized and non-specialized audience.
- Development of learning skills necessary to undertake further studies with a high degree of autonomy.
- To know the applicable legislation in professional practice, with special attention to matters of gender equality between men and women, human rights, solidarity, sustainability, protection of the environment and promotion of the culture of peace.
- To develop communication skills, data recording and medical record making.
- To acquire the skills for the interpretation and clinical judgment of the results of visual tests, to establish the most appropriate diagnosis and treatment.
- To acquire skills in the instrumental tests for the evaluation of visual functions and eye health. To know how to take a complete anamnesis.
- Ability to measure, interpret and treat refractive and binocular errors.
- To know the sensory and oculomotor mechanisms of binocular vision.
- To know the principles and to have the skills to measure, interpret, and treat accommodative and binocular vision abnormalities.
- Ability to prescribe, control and monitor optical corrections.
- To design, to apply and to control visual therapy programs. To know the current techniques of eye surgery and to have the ability to perform the eye tests included in the pre and post-operative exam.
- To know, to apply and to interpret instrumental tests related to visual health problems.
- To apply the clinical procedures associated with the adaptation of contact lenses to different refractive and ocular dysfunctions.



- To know the modifications linked to aging in perceptual processes.
- To know the differences in treatment and refractive diagnosis of the pediatric patient.
- To acquire the ability to examine, to diagnose and to treat visual abnormalities with special emphasis on differential diagnosis.
- To acquire the clinical skills necessary for the examination and treatment of patients.
- To know the nature and organization of the different types of clinical care.
- To know the different protocols applied to patients.
- To know and to apply visual screening techniques applied to different populations.
- To know and to apply new technologies in the field of optometric clinic.
- Ability to act as a primary visual care agent.
- To know the legal and psychosocial aspects of the profession.
- To know the fundamentals and techniques of health education and the main generic health programs to which the optometrist must contribute from their scope of action.
- To identify and to analyze environmental and occupational risk factors that can cause visual problems.
- To know the applicable legislation in professional practice, with special attention to matters of gender equality between men and women, human rights, solidarity, protection of the environment and promotion of the culture of peace.

LEARNING OUTCOMES

The student has to acquire the basic knowledge of the Optometry III that is necessary to approach successfully the study of other subjects that compose the matter Optometry such are the Paediatric Optometry and Geriatric Optometry and sanitary legislation. They have to familiarize themselves with the clinical skills necessary for the examination and treatment of patients

DESCRIPTION OF CONTENTS

1. Basic methods of ocular exploration and clinical protocol.

TOPIC 1: INTRODUCTION. THE VISUAL PRIMARY HEALTH. PRELIMINARY TESTS

TOPIC 2: EXAMINATION OF THE PREVIOUS SEGMENT OF THE EYE BY BIOMICROSCOPY.

TOPIC 3: CORNEOUS TOPOGRAPHY.

TOPIC 4: MICROSCOPY CONFOCAL AND ESPECULAR.

CLINICAL CASES. OPTOMETRIC EXAMINATION.

**2. Evaluation of the ocular health.**

TOPIC 5: DIRECT AND INDIRECT OFTALMOSCOPY.

TOPIC 6: TOMOGRAPHY OF OPTICAL COHERENCE.

CLINICAL CASES. OPTOMETRIC EXAMINATION.

3. EVALUATION FIELD OF VISION AND PRESSURE INTRAOCULAR. STUDY OF THE TEAR.

TOPIC 7: EVALUATION OF THE PRESSURE INTRAOCULAR AND EXAMINATION OF THE FIELD OF VISION

TOPIC 8: EVALUATION OF THE TEAR FILM

CLINICAL CASES. OPTOMETRIC EXAMINATION.

4. CLINICAL PRACTICE

PRACTICE 1: EVALUATION PREVIOUS SEGMENT

PRACTICE 2: PRACTICAL EVALUATION OF LATER SEGMENT

PRACTICE 3: EVALUATION OF THE FIELD OF VISION

WORKLOAD

| ACTIVITY | Hours | % To be attended |
|--|---------------|------------------|
| Theory classes | 30,00 | 100 |
| Other activities | 15,00 | 100 |
| Development of individual work | 5,00 | 0 |
| Preparation of evaluation activities | 40,00 | 0 |
| Preparing lectures | 7,00 | 0 |
| Preparation of practical classes and problem | 15,00 | 0 |
| TOTAL | 112,00 | |

TEACHING METHODOLOGY

The educational methodology of this matter:

Theoretical classes:

Classes of modality presencial where the theoretical contents of the matter will be given. There will be reinforced the audio-visual use of methodology, which exemplify with major clarity the theoretical contents and the examples to developing.



Practical classes:

Classes of modality presencial in those who will develop the theoretical concepts of practical form in his application in the office of optometry.

EVALUATION

Him evaluation of the subject, it will consist of two parts:

- Theoretical Evaluation: written Examination type test. Maximum of 7 points.
- Practical Evaluation: Assistance to 3 practices and delivery of the memories. Maximum 3 points.

It is necessary to obtaine 5 points to pass the subject

REFERENCES

Basic

- a) Bibliografía básica:
 - Referencia b1: González-Cavada Benavides J. Atlas de lámpara de hendidura. ICM, (2003)
 - Referencia b2: Patel DV, McGhee CN. In vivo confocal microscopy of human corneal nerves in health, in ocular and systemic disease, and following corneal surgery: a review. Br J Ophthalmol. 2009; 93:853-60
 - Referencia b3: Greely Loring E. Text-Book of Ophthalmoscopy, Volume 1. Nabu Press. (2010)
 - Referencia b4: Yebra-Pimentel E, García-Resúa C. Tonometría: técnicas de medida. Utilidad clínica. Ed. Ulleye, (2007)
 - Referencia b5: Buratto L. Corneal topography: the clinical atlas. SLACK Inc., (1996)
 - Referencia b6: Montés-Micó R. OPTOMETRÍA. PRINCIPIOS BÁSICOS Y PALICACIÓN CLÍNICA. ED. ELSEVIER
 - Referencia b7: Montés-Micó R. OPTOMETRÍA. ASPECTOS AVANZADOS Y CONSIDERACIONES ESPECIALES. ED. ELSEVIER
- b) Bibliografía complementaria:
 - Referencia c1: Ledford JK, Sanders VN. The slit lamp primer. 2nd ed. Slack Inc, (2006)
 - Referencia c2: Wang M. Corneal topography in the wavefront era: a guide for clinical application. Slack Inc, (2006)



ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

English version is not available