LEARNING OBJECTIVES OF THE SUBJECT

1. Competence to apply the different optometric care protocols, with the aim of diagnosing and treating refractive defects and binocular vision disorders in strabismic and non-strabismic patients.
2. Competence to detect signs of changes in eye health and to recommend appropriately, in a timely manner, referral to an ophthalmologist.
4. Competence to communicate with the patient, attending to their needs and characteristics, with the aim of making a good identification of the reason for consultation, expectations and effectively communicating the solution proposal in each of the cases.
10. Knowledge and competence in the application of evidence-based decision-making methods, within the framework of the professional activity of the optician-optometrist.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Hours small group</td>
<td>60,0</td>
<td>26.67</td>
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<td>Hours medium group</td>
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<td>13.33</td>
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<tr>
<td>Self study</td>
<td>135,0</td>
<td>60.00</td>
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Total learning time: 225 h

CONTENTS

<table>
<thead>
<tr>
<th>title english</th>
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<tbody>
<tr>
<td>Description:</td>
</tr>
<tr>
<td>content english</td>
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<tr>
<td>Full-or-part-time: 65h</td>
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<tr>
<td>Practical classes: 30h</td>
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<tr>
<td>Self study: 35h</td>
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<td>title english</td>
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**ACTIVITIES**

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<tr>
<th>name english</th>
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<th>Full-or-part-time: 14h</th>
<th>Self study: 14h</th>
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<table>
<thead>
<tr>
<th>Description:</th>
<th>B 8: Refraction. Knowledge.</th>
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</thead>
<tbody>
<tr>
<td>(3) anamnesis</td>
<td>(5) objective static and dynamic refractive status, including automatic refractive devices</td>
</tr>
</tbody>
</table>
(6) standard subjective refraction procedures, including astigmatic axis, crossed cylinders, stenopaic slit, fogging methods and equalisation (duo chrome) techniques
(7) binocular subjective refraction procedures, including accommodation binocular balancing methods
(10) identification, treatment and management using spectacle and contact lenses and prognosis
(11) observation and recognition of clinical signs, and techniques and skills for determining the near add.

B 8: Refraction. Practical.
The ability to take an accurate history from patients with a range of optometric conditions.
The ability to obtain and interpret information on significant symptoms and patient's concerns.
The ability to obtain and interpret information on relevant family history.
The ability to obtain and interpret information on issues pertaining to the patient’s general health, medication, work, sports, hobbies, lifestyle and special needs.
The ability to explore the patient’s understanding of their visual problems and impart to patients an explanation of their physiological or pathological eye condition.
An ability to understand and recognise a patient's fears, anxieties and concerns about their visual welfare, the eye examination and the possible ocular side effects of medication.
An ability to understand and recognise the patient's expectations and aspirations and manage empathetically situations where these cannot be met.
The ability to communicate with patients who have poor, or non-verbal, communication skills, or those who are confused, reticent or who might mislead.
The ability to communicate bad news to patients in an empathetic and understandable way.
The ability to manage patients in a safe, ethical and confidential fashion.
The ability to create and to keep clear, accurate and contemporaneous patient records.
The ability to interpret and respond appropriately to existing records.
The ability to make a judgement regarding referral and an understanding of referral pathways.
The ability to refract patients by appropriate objective and subjective means.
The ability to make appropriate prescribing and management decisions based on the refractive and oculomotor status.
The ability to use appropriate ocular diagnostic drugs to aid refraction if and when needed.
The ability to manage non-tolerance cases (including referral when appropriate)

B 10: Ocular Motility and Binocular Vision. Practical.
The ability to assess binocular status (accommodation, vergence and motility/eye movement) using objective and subjective tests.
The ability to manage a patient presenting with an incomitant deviation (i.e. an anomaly of the extra-ocular muscles).
The ability to investigate and manage adult patients presenting with heterophoria.
The ability to manage an adult patient with heterotropia.
The ability to manage children at risk of developing an anomaly of binocular vision.
The ability to manage patients presenting with an anomaly of binocular vision.

B 12B: Investigative Techniques. Practical.
The ability to assess a patient's colour vision and to determine whether it achieves the standards required by various vocational groups and whether there is a macular problem.
The ability to use instruments in ocular examination and to understand the implications of the findings in terms of subsequent examination techniques.
The ability to assess the external eye and adnexa.
The ability to interpret information on significant symptoms pertinent to paediatric conditions and patient’s or parent’s concerns.
The ability to obtain and interpret information on relevant family history pertinent to paediatric conditions.
The ability to obtain and interpret information on patient’s general health, medication, school work, sports, hobbies, lifestyle, and special needs pertinent to children and infants.
Demonstrate an understanding of techniques for assessment of vision in infants.
The ability to assess children’s (not infants) visual function using appropriate techniques.
The ability to manage (or treat) children (not infants) with impaired visual function (using appropriate techniques or referral).

B 14B: Refractive Surgery. Knowledge.
(1) patient counselling,

B 14B: Refractive Surgery. Practical.
The ability to properly advise on refractive surgery options and possible outcomes.
The ability to identify corneal ectasia and dystrophies and other contraindications to refractive surgery.
The ability to perform the techniques used in the pre-operative assessments.
The ability to manage the aftercare of patients having undergone refractive surgery.
The ability to identify post-operative complications.
The ability to manage refractive surgery patients in a safe, ethical, and confidential fashion.
The ability to create and keep clear, accurate, and contemporaneous patient records.
The ability to interpret and respond appropriately to existing records.
The ability to make a judgement regarding referral and an understanding of referral pathways.
The ability to make a judgement regarding referral and an understanding of referral pathways.

C 12C: Investigative Techniques. Practical
The ability to assess a patient’s colour vision and to determine whether it achieves the standards required by various vocational groups and whether there is a macular problem.
The ability to use instruments in ocular examination and to understand the implications of the findings in terms of subsequent examination techniques.
The ability to assess the external eye and adnexa.
The ability to assess the tear film.
The ability to assess pupil reactions.
The ability to use diagnostic drugs to aid ocular examination.
The ability to use instruments to measure central and peripheral corneal curvature and thickness (non-contact and contact).
The ability to examine the central and peripheral fundus with different observation techniques.
The ability to assess the internal eye.
The ability to make an assessment of the fundus in the presence of media opacities.
The ability to detect anterior chamber signs of ocular inflammation.
The ability to assess and interpret visual fields of patients with normal, sub-optimal, or reduced visual acuity.
The ability to use non-contact and applanation tonometers to measure intraocular pressure and analyse and interpret the results.

C 14C: Refractive Surgery Knowledge
(1) patient counselling,

C 24: Abnormal Ocular Conditions. Practical
The ability to interpret and investigate the presenting symptoms and concerns of the patient.
The ability to develop a management plan for the investigation of the patient.
The ability to identify external pathology and offer appropriate information and advice to patients not needing referral.
The ability to recognise common ocular abnormalities and to refer when appropriate.
The ability to manage a patient presenting with a red eye.
The ability to manage a patient presenting with reduced vision.
The ability to identify abnormal colour vision and to appreciate its significance.
The ability to manage a patient presenting with cataract.
The ability to evaluate glaucoma risk factors, to detect glaucoma and refer accordingly.
The ability to manage a patient presenting with macular degeneration or other macular disease.
The ability to recognise, evaluate and manage diabetic eye disease and refer accordingly.
The ability to evaluate and manage a patient presenting with symptoms suggestive of retinal detachment.
The ability to recognise manifestations of systemic disease.
The ability to assess symptoms and signs of neurological significance.
The ability to manage patients presenting with sight-threatening eye disease.
An ability to recognise adverse ocular reactions to medication.
The ability to recognise, evaluate and manage optic nerve and optic nerve head disease and refer accordingly.

The ability to communicate in a respectful tone and manner.
The ability to listen actively and to communicate effectively.
The ability to listen and ask questions to understand the patient’s concerns and viewpoints.
The ability to communicate in a timely manner.
The ability to be aware of and responsive to verbal and non-verbal communication.
The ability to recognise and adjust to cultural differences.
The ability to use effective cross-cultural communication skills if appropriate.
The ability to communicate with a diverse group of patients with a range of ophthalmic conditions and needs.
The ability to provide information in a way which is appropriate to the patient.
The ability to break bad news in an appropriate and considerate manner.
D 26: Professional Conduct. Practical.
The ability to look after patients in a safe, appropriate, and confidential environment
The ability to communicate by adhering to appropriate ethical and cultural standards
The ability to comply with legal, professional, and ethical issues relating to practice

LES COMPETÈNCIES DEL DIPLOMA EUROPEU - AVALUACIÓ

B8 Refraction: 1,3 ECTS
B10 Ocular Motility and Binocular Vision: 0,3 ECTS
B12B Investigative Techniques: 0,5 ECTS
B14B Refractive surgery: 0,6 ECTS

C12C Investigative Techniques: 0,85 ECTS C14C Refractive surgery: 0,05 ECTS
C24C Anormal Ocular Conditions: 0,95 ECTS

D25 Comunication +
D26 Professional Conducta 0,85 ECTS

**Full-or-part-time**: 81h
Self study: 81h

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**GRADING SYSTEM**

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**BIBLIOGRAPHY**

**Basic:**
- Journal of Cataract and Refractive Surgery.
- Optometry and vision science : the journal of the American Academy of Optometry. Hagerstown, Md. : Lippincott Williams & Wilkins, 1989-.
- Clinical and Experimental Optometry.
- British Journal of Ophthalmology.
- Ophthalmic and Physiological Optics.
- Journal of Vision.
- Eye and Vision.