

## 370527 - OCC - Optometry and Contact Lens Clinics

Coordinating unit: 370 - FOOT - Terrassa School of Optics and Optometry  
Teaching unit: 731 - OO - Department of Optics and Optometry  
Academic year: 2019  
Degree: BACHELOR'S DEGREE IN OPTICS AND OPTOMETRY (Syllabus 2009). (Teaching unit Compulsory)  
ECTS credits: 7,5 Teaching languages: Catalan, Spanish

### Teaching staff

Coordinator: Varón Puentes, María Consuelo (<http://futur.upc.edu/MariaConsueloVaronPuentes>)  
Others: Ondategui Parra, Juan Carlos (<http://futur.upc.edu/JuanCarlosOndateguiParra>)  
Augé Serra Montserrat  
Gispets Parcerisas Joan  
  
García- Carcelle, Víctor (<http://futur.upc.edu/VictorArturoGarciaCarcelle>)  
María Consuelo Varón Puentes  
García Parés, Eva  
Asaad Ammaar, Mouafk  
Lupón Bas Marta  
Martínez Roda Joan Antoni

### Degree competences to which the subject contributes

Specific:

10. Technical english applied to optics and optometry
11. Apply geometry, calculations and statistics for modeling and solving problems related to optics and optometry.
12. Learn the psychology knowledges of the patient, bioethics, health and public health in order to apply them correctly in the clinical environment
13. Being able to perform literature searches.
14. Prevent problems with visual health
15. Perform visual examinations using preventive screening procedures in different population groups
16. Collaborate with other interdisciplinary professionals to get a comprehensive eye care
17. Managing patient care
18. Make a proper anamnesis and initial analysis of the state of the patient
19. Determine the visual ability using appropriate tests and techniques like the measure of visual acuity, contrast sensibility...
20. Analyze the refractive monocular state through objective and subjective techniques
21. Analyze the state of binocularity
22. Set the differential diagnosis
23. Set the optometric treatment

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24. Identify and value the need to remit the patient to another more appropriate specialist . (To detect the possible disorders and ocular pathologies and value the need to remit patients to ophthalmologist or other specialist)
25. Apply pre-and postsurgical optometric protocols associated with different eye diseases and conditions
26. Determine in function of the prescription, the visual needs or of protection, and patient characteristics, type of lens (including filter, prism or optical aid) and the most appropriate mont. Advise and guide the patient on the best solution.
27. Mount, adapt, adjust and repair satisfactory any type of glasses and optical help to the patient, providing necessary information to be used correctly
28. Provide tracking service that best suits each patient.
29. Recognize the characteristics of different population groups according to the age, or demands or visual needs.
30. Distinguish between the characteristics of materials and designs of various types of ophthalmic lenses (including prisms and filters) and frames, and understand the basic principles of optics and not optical systems used for low vision.
31. Value the impact parameters psychoaesthetic, or psychosocial and economic impact to the user.
32. Perform the necessary tests to identify dysfunctions of binocular vision, both strabismus dysfunction as not strabismus dysfunction, could be enhanced by visual therapy.
33. To understand the optical characteristics and the use of optical and no optical aids in low vision.
34. Assessing the chances of successful implementation of a specific therapy based on the visual results of the refractive and binocular evaluation.
35. Select the appropriate optical aid according to the patient's visual limitations.
36. Value and report on the possibilities and limitations of specific visual aids for low vision.

### Generical:

1. Argue the relations between the visual health and the development of the people and of the collective.
2. Develop the professional activity in accordance with the ethical values, attending the social and cultural diversity and with criteria of sustainability.
3. Consistently communicate the basic knowledge of optometry acquired. (Explain orally and in writing the basic knowledge)
4. Communicate (Advise and guide) in a responsible and efficient way with the patient and his environment (in order to ensure compliance with treatment)
5. Being able to participate in multidisciplinary working groups, multicultural and multilingual
6. Be able to organize the work of a group of people to attain a previously determined aim in the due terms
7. Analyze and relate the knowledge and acquired skills.
8. Expand and upgrade skills for professional practice and knowledge through continuing education
9. Be innovative and entrepreneurial

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### Teaching methodology

This course is based on clinical sessions in small groups, to promote critical analysis in care for real patients. It is complemented by clinical seminars for stimulate the capacity of clinical decision and solving problems, even in small groups.

### Learning objectives of the subject

Make the necessary clinical tests within the optometric examination to make the differential diagnosis of different visual problems and apply the most appropriate treatment for visual needs of the patient.

At the end of the course Optometry and contact lenses clinic, students must have achieved the following objectives (taken from BOE):

- Perform clinical activities related to the refraction, visual exploration and adaptation of contact lenses.
- Apply the techniques of assembling corrections or visual compensations on glasses and contact lenses.
- Understand the different protocols depending on the patient.
- Understand the indications and procedure of implementation and interpretation of tests required in the query view.
- Making the protocol of care to patients in the surgery/ optometric clinic.
- Perform an appropriate clinical profile of the patient.
- Promote collaboration with other health professionals.
- Communicate and inform the patient of all actions and tests to be carried out and clearly explain the results and their diagnosis.
- Develop communication skills, data recording and processing of medical records.
- Acquiring the skill to interpret clinical trial results and the visual tests, to establish the diagnosis and treatment.
- Acquire skills in instrumental tests to evaluate visual function and eye health. Learn to make a complete anamnesis.
- Ability to measure, interpret and treat refractive defects.
- Understanding the mechanisms of ocular motor and sensory binocular vision.
- Understand the principles and have the ability to measure, interpret and treat abnormalities of binocular vision and accommodative.
- Ability to prescribe, control and monitoring of optical corrections.
- Be aware of current techniques of eye surgery and the ability to carry out eye tests included in the pre-and postoperative examination.
- Understand, apply and interpret the evidence related to the instrumental visual health problems.
- Know and apply optical and non optical aids for low vision.
- Knowing the changes related to aging processes of perception.
- Being able to measure and interpret the data obtained in psychophysical assessment of visual perception.
- Acquire the clinical skills necessary for examining and treating patients.
- Acquiring the ability to examine, diagnose and treat visual anomalies with particular emphasis on differential diagnosis
- Knowing the nature and organization of different types of clinical care.
- Understand the different applied protocols to patients.
- Know and apply visual screening techniques applied to different populations.
- Understand and apply new technologies in the field of optometric clinic.
- Understand the legal and psychosocial aspects of the profession.
- Ability to act as agent for primary eye care.
- Learn the fundamentals and techniques of health education and major generic health programs which the optometrist should contribute from their field.
- Identify and analyze the environmental and labor risk factors that can cause vision problems.
- Being able to perform psychophysical tests to determine levels of visual perception.
- Know and apply procedures and indications for different methods of clinical examination and complementary diagnostic techniques.
- Identify and assess the main ophthalmologic disorders, in order to send patients to the ophthalmologist for their evaluation and treatment.

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Understanding the psychological aspects of the relationship between the optical-optometrist and patient.  
Understand the psychosocial aspects of the profession.

### Study load

Total learning time: 195h	Hours large group:	0h	0.00%
	Hours medium group:	0h	0.00%
	Hours small group:	60h	30.77%
	Guided activities:	30h	15.38%
	Self study:	105h	53.85%

### Content

title english	Learning time: 1h Laboratory classes: 1h
Description: content english	

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### Planning of activities

Mandatory activity 1: Clinical sessions with real patients.	Hours: 88h 30m Laboratory classes: 42h Self study: 46h 30m
Mandatory activity 2: Presentation and exhibition of clinical justified cases.	Hours: 34h Laboratory classes: 14h Self study: 20h
Activity obligatory 3: Pràcticum	Hours: 33h Self study: 15h Laboratory classes: 18h
Mandatory Activity 4: Spectacle assembly.	Hours: 23h Self study: 23h
Mandatory activity 5: Clinical sessions with the ophthalmologist.	Hours: 12h Laboratory classes: 4h Guided activities: 8h

### Qualification system

The evaluation will be based on continuous assessment and according to the following percentages:

Mandatory Activity 1: Clinical sessions with real patients: 80%

Mandatory Activity 2: Presentation and exhibition of clinical justified cases: 5%

Mandatory Activity 3: Pràcticum: 15%

mandatory Activity 4: Spectacle mounting (weights 0 to 1 mandatory activity 3)

Mandatory Activity 5: Clinical ophthalmologic sessions (weights 0 to 1 mandatory activity 1)

### Regulations for carrying out activities

If you miss three or more clinical sessions, the part of practice clinic will be failed.

If the activities are not carried out in the term of delivery mean a rating of 0.

For each activity will be specified in detail the model for its implementation and the corresponding overall assessment template.

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### Bibliography

#### Basic:

Scheiman, M.; Wick, B. Clinical management of binocular vision: heterophoric, accommodative and eye movement disorders. Philadelphia: Lippincott, 1994. ISBN 0397511337.

Borràs García, M.R. Visión binocular: diagnóstico y tratamiento [on line]. Barcelona: Edicions UPC, 1996 [Consultation: 12/07/2017]. Available on: <<http://hdl.handle.net/2099.3/36218>>. ISBN 84-8301-159- X.

Ettinger, E.R.; Rouse, M.W. Clinical decision making in optometry. Boston: Butterworths-Heinemann, 1997. ISBN 0750695714.

Bennett, E.S.; Weissman, B.A. Clinical contact lens practice. Philadelphia: Lippincott, 2005. ISBN 0781737052.

Gasson, A.; Morris, J. The contact lens manual: a practical fitting guide. 4th ed. Edinburgh: Butterworths-Heinemann, 2010. ISBN 9780750675901.

Kanski Jack J.. Oftalmología clínica. 6ª ed. Barcelona: Elsevier, 2009. ISBN 9788480864411.

#### Complementary:

Spalton, D.J.; Hitchings, R.A.; Hunter, P.A. Atlas de oftalmología clínica. 3ª ed. Madrid: Elsevier, 2006. ISBN 8481748749.

Tomlinson, Alan. Complications of contact lens wear. St. Louis: Mosby, 1992. ISBN 0801663091.

Werner, D.L.; Press, L.J. Clinical pearls in refractive care. Boston: Butterworth-Heinemann, 2002. ISBN 0750699124.

#### Others resources: