Course guide
370034 - CONCLIN II - Contact Lens Clinics II

Last modified: 01/09/2025

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

Degree: BACHELOR'S DEGREE IN OPTICS AND OPTOMETRY (Syllabus 2020). (Compulsory subject).

Academic year: 2025 **ECTS Credits:** 3.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Cortilla Santamaria, Bernat

Others: Primer quadrimestre:
Ponce, Victor
Espin, Ana

REQUIREMENTS

Having enrolled in Clinical Contact Lenses I.

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CE14. (ENG) Comprendre els aspectes psicològics en la relació entre l'òptic-optometrista i el pacient. Conèixer el sistema sanitari espanyol i els aspectes bàsics relacionats amb la gestió dels serveis de salut, fonamentalment els que estiguin relacionats amb l'atenció i rehabilitació de la salut. Conèixer i aplicar les tènciques d'educació sanitària i els principals problemes genèrics de salut ocular. Conèixer els principis de sallut i malaltia. Capacitat per actuar com agent d'atenció primària visual. Conèixer els fonaments i tècniques d'educació sanitaria i els principals programes genèrics de salut als que l'opotmetrista ha de contribuir des del seu àmbit d'actuació.

CE15. (ENG) Adquirir habilitats de treball en equip com unitat en la que s'estructuren de forma uni o multidisciplinar els professionals i demés personal relacionats amb la salut visual.

CE17. Demonstrate knowledge of manifestations of the pathological processes and mechanisms by which the main human diseases are generated. Recognise the types of mechanisms and physiopathological processes that trigger eye diseases. Demonstrate knowledge of the symptoms of visual disorders and recognise the signs associated with them. Recognise alterations that change normal functioning and trigger pathological processes that affect vision. Detect and assess the main ophthalmological disorders to refer patients to an ophthalmologist for examination and treatment. Demonstrate knowledge of manifestations of systemic diseases at the ocular level. Demonstrate knowledge of epidemiological models of the main pathologies.
CE20. Measure, interpret and treat refractive errors. Describe the sensory and oculomotor mechanisms of binocular vision. Identify the principles of and measure, interpret and treat accommodative and binocular vision anomalies. Demonstrate skills in communication, recording data and writing clinical histories. Demonstrate skills in the interpretation and clinical judgement of results of vision tests, to establish the most suitable diagnosis and treatment. Demonstrate skills in instrumental assessment tests of visual function and eye health. Carry out a complete medical history. Identify, apply and interpret instrumental tests relating to visual health problems. Demonstrate the clinical skills required for the examination and treatment of patients. Examine, diagnose and treat visual anomalies with an emphasis on differential diagnosis. Describe the nature and organisation of types of clinical care. Describe the protocols that are applied to patients.
CE23. Describe the properties of the types of contact lenses and ocular prostheses. Describe the geometry and physical-chemical properties of contact lenses and associate them with specific ocular and refractive characteristics. Identify and use clinical and instrumental protocols associated with fitting contact lenses. Identify the solutions used for maintenance, diagnosis and treatment and associate them with lenticular and ocular characteristics. Apply the clinical procedures associated with contact lens fitting to various refractive and ocular dysfunctions. Apply the controlled modification techniques of corneal topography with the use of contact lenses. Detect, assess and resolve abnormalities associated with the use of contact lenses. Adapt contact lenses and ocular prostheses to improve vision and the outer appearance of the eye.
CE25. (ENG) Conèixer els aspectes legals i psicosocials de la professió

CE26. (ENG) Pràctiques preprofessionals, amb una avaluació final de competències, i que permeti a l'alumne incorporar els valors professionals i competències dirigits a: aplicar els coneixements adquirits en els mòduls anteriors en establiments d'òptica, clíniques i hospitals, centres de salut, i empreses del sector. Realitzar activitats clíniques relacionades amb la refracció, exploració visual, adaptació de lents de contacte, entrenament visual i baixa visió. Aplicar les tècniques de muntatge de correccions o compensacions visuals en ulleres i possible retoc de lents de contacte. Prendre contacte amb la compercialització dels productes, aprovisionament, emmagatzematge, conservació i informació. Conèixer i aplicar les tècniques de fabricació d'ajudes visuals i instruments òptics i optomètrics. Conèixer els diferents protocols d'actuació en funció del pacient. Conèixer les indicacions i procediment de realització i interpretació de les proves comple mentàries necessaries en la consulta de visió. Realitzar el protocol d'atenció a pacients a la consulta/clínica optomètrica. Realitzar una història clínica adecuada al perfil del pacient. Seleccionar i aplicar correctament en cada cas totels les destreses, habilitats i competències adquirides en optometria. Fomentar la col·laboració amb altres professionals sanitaris. Comunicar i informar al pacient de tots els actes i proves que es realitzaran i explicar clarament el resutats i seu diagnòstic

Generical:
CG1. Demonstrate knowledge of, design and apply prevention and maintenance programmes relating to the population's visual health.
CG2. Carry out each stage of visual examinations effectively: medical history, selection and implementation of diagnostic tests, establishment of a prognosis, selection and execution of treatment and, if necessary, preparation of referral reports that establish levels of collaboration with other professionals, to ensure the best possible care for the patient.
CG3. Advise and guide patients and relatives during the entire treatment.
CG4. Critically reflect on the clinical, scientific, ethical and social issues involved in the professional practice of optometry, understand the scientific foundations of optics and optometry and critically evaluate terminology, clinical trials and research methods related to optics and optometry.
CG5. Give opinions and produce reports and expert reports when necessary.
CG6. Assess and incorporate the technological improvements necessary to properly carry out professional activities.

CG9. Expand and update one's professional abilities through continuing education.
CG10. Communicate treatment indications of visual health and their conclusions to the patient, relatives and other professionals involved in the patient's care, adapting to the sociocultural characteristics of each person.
CG11. Locate new information and interpret it in context.

CG12. (ENG) The ability to understand the general structure of optometry and its connection to other specific disciplines and other complementary ones.

CG14. Demonstrate knowledge, skills and abilities in patient healthcare.
CG16. Participate effectively in both single-discipline and multidisciplinary work groups on projects related to optometry.

CG17. (ENG) Incorporar els principis ètics i legals de la professió a la pràctica professional, respectant l'autonomia del pacient, els seus determinants genètics, demogràfics, culturals i socioeconòmics, integrant els aspectes socials i comunitaris en la presa de decisions, aplicant els principis de justícia social en la pràctica professional, en un context mundial en transformació.

CG18. (ENG) Adquirir la capacitat per a realitzar una gestió clínica centrada en el pacient, el l'economia de la salut i en l´ús eficient dels recursos sanitaris, així com la gestió eficaç de la documentació clínica amb especial atenció a la confidencialitat.

Transversal:
CT2. SUSTAINABILITY AND SOCIAL COMMITMENT: Being aware of and understanding the complexity of the economic and social phenomena typical of a welfare society, and being able to relate social welfare to globalisation and sustainability and to use technique, technology, economics and sustainability in a balanced and compatible manner.

CT5. Efficient use of informacion resources. To manage data and technical and scientific information adquisition, organization, analysis and visualization and to provide a critical appraisal of the results of this management
CT9. (ENG) Pràctica basada en evidència

TEACHING METHODOLOGY

MD7- Tutoring
MD8 - Resolution of cases with real patients in healthcare establishments.

The practice sessions will be carried out with real patients at the CUV facilities in BCN.

LEARNING OBJECTIVES OF THE SUBJECT

Knowledge and competence to make an anamnesis to a candidate of contact lenses.
Competence in applying the different protocols for adapting contact lenses for the treatment of refractive errors and presbyopia.
Basic competence to apply the contact lens adaptation protocols in special cases: irregularities or post-corneal refractive surgery.
Competence in selecting potential users of nocturnal orthokeratology.
Competence in detecting and resolving complications or cases of intolerance to contact lens wearers.

STUDY LOAD

Type	Hours	Percentage
Self study	45,0	60.00
Hours medium group	7,5	10.00
Hours small group	22,5	30.00

Total learning time: 75 h

CONTENTS

Compensation of refractive defects and presbyopia with LC.

Description:
LC adaptations will be made in patients with various refractive errors and/or presbyopia, both with monovision techniques and with multifocal contact lenses, under the guidance and supervision of a tutor. During the process, the tutor will ensure that the student is guided to make him competent when applying his knowledge in a real environment where patients are present.

Full-or-part-time: 20h
Laboratory classes: 8h
Self study : 12h

Patient selection for overnight orthokeratology - preliminary testing and selection of lens types.

Description:
Students will perform preliminary tests on potential ortho-k patients,
determining whether they have visual and ocular characteristics for this type of treatment
and determining which type of lens would be appropriate, under the supervision of the teaching staff.

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

Contact lens fitting for patients with irregular cornea.

Description:
Adaptations will be performed on real patients with irregular cornea due to corneal ectasia or refractive surgery, under the supervision and guidance of the teaching staff.

Full-or-part-time: 20h
Laboratory classes: 8h
Self study : 12h

Adaptation of cosmetic and therapeutic lenses.

Description:
Cosmetic or therapeutic lens fittings will be performed in a clinical practice setting at CUV-Terrassa or CUV-Barcelona, â□□â□□under the supervision and guidance of faculty.

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

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Description:
Reviews will be carried out on LC users with the aim of detecting possible complications
and determining and administering the appropriate treatment, in a clinical environment and under the supervision and guidance of the teaching staff.

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

LC adaptation for myopia control.

Description:
Fitting myopic patients with special lenses for myopia control.

Full-or-part-time: 5h
Laboratory classes: 2h
Self study : 3h

ACTIVITIES

Case files

Description:
Each student will submit a dossier on a medium-to-high complexity case that he or she has seen during the practical sessions.

Delivery:
Once all sessions have been completed, through ATENEA, in PDF format and on the deadline that the teaching staff will announce.

Full-or-part-time: 8h
Self study: 8h

Practice sessions.

Description:
There will be three-hour practice sessions on a weekly basis for 13 weeks.
During these sessions, the first hour will be devoted to a short seminar to discuss the cases with the group and 2 hours to attending to a couple of patients.

Material:
The CUV facilities or equipment in Terrassa or Barcelona.

Full-or-part-time: 22h 30m
Laboratory classes: 22h 30m

Case seminars.

Description:
Seminars in which the cases seen in the practical sessions and others that the teaching staff may propose will be discussed.

Specific objectives:
Share with the entire group the most interesting lessons that may arise from each of the cases.
Go into greater depth on those aspects that the teacher thinks are most relevant to the cases, encouraging a critical review of the actions in the office.

Full-or-part-time: 7h 30m
Laboratory classes: 7h 30m

EUROPEAN DIPLOMA IN OPTOMETRY COMPETENCES

Description:
This module contributes to the European Diploma in Optometry competencies indicated in the following link:
https://drive.google.com/drive/folders/1bwmHBsvkrGnY63DfXAnWZB_i0I2pXa-I?usp=drive_link

CLINICAL PORTFOLIO

Description:
1 complete contact lens fitting case will be performed.
Example of the information needed for a contact lens fitting case.
Not only should it contain the specific contact lens information, it should also include a complete baseline eye exam including an assessment of the segment prior to fitting the lens.
- 1. Complete eye exam
- 2. Contact lens specific tests:
- Refraction
- Corneal topographic data:
- Central and peripheral keratometry readings
- Corneal topography images with legible K readings
- Selected preliminary lens data
- Preliminary lens evaluation including support tests
- Images or videos showing lens movement and position
- Fluorescein evaluation (for RGP lenses)
- Preliminary lens refraction
- 3. Observations
- 4. Action plan:
- Include changes that need to be made to improve lens fit
- Explain why changes have been made
- Include a follow-up visit with evaluation of the fitted lens Include prescribed lens data
- 5. Case discussion:
Choosing a soft contact lens fitting (astigmatism > 2 diopters)
Dedication: 15h Independent learning: 15h

Full-or-part-time: 15h
Self study: 15h

GRADING SYSTEM

Dossier and presentation of a case (40%)
Evaluation of practice sessions (60%)

This subject does not have re-evaluation.

The evaluation of transversal competencies will be carried out in accordance with the document approved by the permanent commission on April 14, 2021 "Evaluation of Transversal Competencies in the FOOT for Degree Studies in Optics and Optometry (2020 plan)" or the modifications future ones that may be approved.

EXAMINATION RULES.

Attendance at clinical sessions is mandatory. Unjustified absence from more than 10% of the sessions will result in a grade of NP in the subject.
In the evaluation of the practical sessions, the teaching staff will follow a rubric according to which the following will be evaluated: the student's communication skills with the patient,
the competence to carry out and interpret the tests prior to fitting, the competence to analyse the results and propose a solution with contact lenses,
the skills of handling and inserting the lenses, the competence to evaluate the trial lenses, the competence to make a final order and a first review of the LC.

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 may lead to a significant variation in the grade of one or more students constitute a fraudulent performance of an assessment act. This action involves a descriptive grade of fail and a numerical grade of 0 for the assessment act and the subject, without prejudice to the disciplinary process that may arise as a consequence of the acts carried out.
If the student considers the decision to be incorrect, he or she may file a complaint with the director or dean of the teaching centre and, if the response does not satisfy him or her, he or she may lodge 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 authorisation of the authors.
It is the responsibility of the director or dean of the teaching centre to resolve allegations regarding aspects not included in the regulations."

BIBLIOGRAPHY

Basic:
- Efron, Nathan. Contact lens complications [on line]. 4th ed. Philadelphia: Elsevier, 2018 [Consultation: 13/12/2024]. Available on: https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9780702076114/contact-lens-complications. ISBN 9780702076114.
- Veys, Jane; Meyler, John; Davies, Ian. Essential contact lens practice. Oxford [etc.]: Butterworth Heinemann, 2002. ISBN 0750649127.
- González-Cavada Benavides, Javier. Atlas de lámpara de hendidura y lentes de contacto: biomicroscopía ocular. Madrid: Grupo ICM de comunicación, [2015]. ISBN 9788493965686.
- Martín Herranz, Raúl. Contactología aplicada: un manual práctico para la adaptación de lentes de contacto. Madrid: Imagen y Comunicación Multimedia, [2005]. ISBN 8493356956.