Course guide
370029 - CONCLIN I - Contact Lens Clinics I

Last modified: 22/03/2024

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: 2023 **ECTS Credits:** 3.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Serrano Matas, Maria Teresa

Others: Cortilla Santamaria, Bernat
Pauné Fabré, Jaime
Pérez Corral, Juan Enrique
Serrano Matas, Maria Teresa

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.

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:
CT6. Independent learning. Identify and overcome gaps in one's knowledge by thinking critically and choosing the best approach to extending one's knowledge.
CT4. (ENG) Teamwork. The ability to work as a member of an interdisciplinary team, as just another member or in a leadership role, who can contribute to developing projects pragmatically and with a sense of responsibility and make commitments that take into account the resources that are available.
CT9. (ENG) Pràctica basada en evidència

TEACHING METHODOLOGY

MD7 - Tutorials
MD8 - Resolution of cases with real patients in health centres
The practical sessions will be carried out with real patients in the facilities of the University Vision Centre in Terrassa or Barcelona.

LEARNING OBJECTIVES OF THE SUBJECT

Carry out a medical history for a contact lens candidate.
Apply protocols for fitting contact lenses to treat refractive errors and presbyopia.
Apply the protocols of fitting contact lenses in special cases: irregularities or post-surgical corneal refraction.
Select potential users of nocturnal orthokeratology.
Detect and provide solutions to complications or cases of intolerance in contact lens users.

STUDY LOAD

Type	Hours	Percentage
Hours medium group	7,5	12.50
Hours small group	22,5	37.50
Self study	30,0	50.00

Total learning time: 60 h

CONTENTS

Compensation for myopic, hypermetropic or astigmatic patients with contact lenses.

Description:
Fitting for patients with various refractive errors with RGP or soft contact lenses, in a health establishment and under the supervision of a tutor. During the process, the tutor guides students to develop competence in applying their knowledge to a real setting with patients.

Full-or-part-time: 37h 30m
Laboratory classes: 15h
Self study : 22h 30m

title english

Description:
content english

Related competencies :
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.
CG3. Advise and guide patients and relatives during the entire treatment.

Full-or-part-time: 37h 30m
Laboratory classes: 15h
Self study : 22h 30m

ACTIVITIES

name english

Full-or-part-time: 1h
Theory classes: 1h

name english

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

name english

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

name english

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

name english

Full-or-part-time: 1h
Laboratory classes: 1h

CLINICAL PORTFOLIO

Description:
Example of the information needed for a CL case. It should not only contain the contact lens specific information but also a baseline full eye examination including posterior segment assessment prior to lens fitting (a similar testing and reporting scheme need to be developed for other specific cases, i.e., BV, low vision or ocular health problems, etc.).
1. Full eye examination

2. Contact lens specific testing
o Refraction
o Cornea topographical data:
â☐☐ Central and peripheral keratometry readings OR
â☐☐ Corneal topography pictures with readable K-readings Data of the selected preliminary lens
o Evaluation of the preliminary lens including supporting evidence
â☐☐ Drawings, photos (or movie on a CD) showing the movement and positioning of the lens
â☐☐ Fluorescein evaluation (drawing or photo) for RGP lenses
o Refraction with preliminary lens

3. Tentative Diagnoses

4. Management Plan (see information above plus)
â☐☐ Include changes you need to make to improve the lens fitting
â☐☐ Provide an explanation why you need to make the changes
â☐☐ Include a follow-up visit with the evaluation of the adjusted lens
â☐☐ Include the data of the lens prescribed

5. Discussion

It would be sensible to choose contact lens cases to show your skills: cases Soft-toric contact lenses (astigmatism > 2 dioptres)

Full-or-part-time: 5h
Self study: 5h

GRADING SYSTEM

EXAMINATION RULES.

Attendance of clinical sessions is compulsory.
Unjustified absence from over 10% of the sessions leads to a mark of Absent for the subject.
In the assessment of practicals, the professor uses an assessment rubric to evaluate students' communication skills with patients; their competence in carrying out and interpreting tests prior to fitting; their ability to analyse results and propose a solution using contact lenses; their lens handling and insertion skills; their competence in assessing test lenses; and their ability to order contact lenses and check them for the first time.

BIBLIOGRAPHY

Basic:
- Efron, Nathan. Contact lens complications [on line]. 2nd ed. Edinburgh [etc.]: Butterworth Heinemann, 2010 [Consultation: 19/06/2023]. Available on: https://www-sciencedirect-com.recursos.biblioteca.upc.edu/book/9780702076114. ISBN 9780750655347.
- Veys, Jane; Meyler, John; Davies, Ian. Essential contact lens practice. Oxford [etc.]: Butterworth Heinemann, 2002. ISBN 0750649127.
- González-Cavada, Javier. Atlas de lámpara de hendidura y lentes de contacto. 2ª ed. 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.