

370516 - DISFUNCION - Binocular Vision Dysfunctions

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: 9 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: Rosa Borràs Garcia (<http://futur.upc.edu/MRosaBorrasGarcia>)
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Degree competences to which the subject contributes

Specific:

2. Acquire skills in patient care
3. Applying the protocols of public health in relation to visual health.
4. Applying an specific anamnesis to extract relevant information.
5. Evaluate the status and evolution of postoperative ocular parameters of the patient.
6. Evaluate, assess the causes and solve the cases of maladjustment of the user of glasses or optical aids
7. Ability to write and interpret a report
8. Do the following-up of the treatment and value the satisfaction of the user
9. Interpret refractive test results to determine the suitable optical prescription.
10. To interpret the results and determine if necessary a treatment.
11. Measure of ocular parameters presurgical of the patient
12. Producing accurately diagnoses and remission reports.
13. Know establish an optimal therapeutic relationship, know communicate with the patient
14. Knowing how to do clinical examinations and interpret the results

Generical:

16. - Know the influence of the visual health in the education and the global well-being (and the development)
- Know the influence of the visual health for the development
- Know the fundamental values of the bioethics
- Know the model of sustainable development
- Know the environmental and social impacts of the technology
17. Judgments (ratings) reports and surveys

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18. Display information orally and in writing of reasonably and coherent.
19. Extract the main points of a text or any source of information (oral or written)
20. Encourage methodical work, rigorous, consistent and innovative
21. Take part actively in the social development tied to the maintenance of the health and optimum functionality of the visual system
22. To think critically about clinical ethical issues, involved in the political and social exercise of optometry
24. Locate new information and the interpretation of it in its context.
25. Working with evidence, methodology and rigour.

Teaching methodology

In this course we propose to combine theory sessions with informal cooperative lectures, and for the lab work in small groups.

Learning objectives of the subject

The course is based on the proper performance and interpretation of tests to the diagnosis and selecting the most appropriate clinical treatment for people with both accommodative and binocular dysfunctions as with refractive defects

At the end of the course of binocular vision dysfunction, students must have achieved the following objectives (taken from BOE):

- Develop communication skills, data recording and processing of medical records.
 - To acquire the skills for the interpretation and clinical trial results of visual tests to establish diagnosis and appropriate treatment.
 - Know how to develop a complete anamnesis.
 - Ability to measure, interpret and treat refractive defects.
 - 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 the optical compensation.
 - Be aware of current techniques of refractive surgery and eye have the capacity to perform tests of ocular examination before and after surgery.
 - To acquire the skills necessary for clinical examination and treatment of patients.
 - Capacity-examine, diagnose and treat visual anomalies with emphasis on differential diagnosis.
 - Know-based organization and the different types of clinical care.
 - 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 that help the optometrists from its scope.
- Identifying and analyzing environmental and occupational risk factors that can cause vision problems.



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Study load

Total learning time: 216h	Hours large group:	0h	0.00%
	Hours medium group:	48h	22.22%
	Hours small group:	42h	19.44%
	Guided activities:	0h	0.00%
	Self study:	126h	58.33%

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Content

<p>1. Refractive errors</p>	<p>Learning time: 88h</p> <p>Theory classes: 9h Practical classes: 9h Laboratory classes: 18h Guided activities: 2h Self study : 50h</p>
<p>Description:</p> <p>S'estudien les ametropies : hipermetropia, miopia, astigmatisme, presbícia i anisometropia. Per cadascún d'aquestos errors refractius es treballen els següents apartats:</p> <ol style="list-style-type: none"> 1- Epidemiologia. 2- Etiologia 3- Semiologia 4- Classificació 5- Criteris de prescripció 6- Casos clínics 	
<p>2. Dysfunctions of convergence and accommodative</p>	<p>Learning time: 73h</p> <p>Theory classes: 6h Practical classes: 6h Laboratory classes: 18h Guided activities: 3h Self study : 40h</p>
<p>Description:</p> <ol style="list-style-type: none"> 1.1-prescribed criteria. <ol style="list-style-type: none"> 1.1.1 Introduction 1.1.2 Criteria-based formulas (Sheard, Percival) Criterion 1.1.3 of the fixation disparity 1.2-Dysfunctions of convergence. <ol style="list-style-type: none"> 1.2.1 Exodesviacions 1.2.2 Endosdesviacions 1.2.3 dysfunction of fusional convergence 1.3-Dysfunctions of accommodation. <ol style="list-style-type: none"> 1.3.1 Insufficiency of accommodation 1.3.2 Fatigue accommodative 1.3.3 inflexibility of accommodation 1.3.4 Excess of accommodation 1.4-vertical deviations. <ol style="list-style-type: none"> 1.4.1 General 1.4.2 Classification 1.4.3 Diagnosis and treatment 1.5-Clinical cases 	

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<p>3. Patient care</p>	<p>Learning time: 26h Theory classes: 2h 30m Practical classes: 4h Laboratory classes: 4h Guided activities: 3h Self study : 12h 30m</p>
<p>Description: 3.1-Clinical History 3.2 Anamnesis 3.3-Reporting 3.4-Communication with the patient</p>	
<p>4. Refractive surgery</p>	<p>Learning time: 19h 30m Theory classes: 2h Practical classes: 2h Guided activities: 3h Self study : 12h 30m</p>
<p>Description: 2.7-Refractive Surgery 4.1 Pre-operative Examination 4.2 Techniques of ocular surface 4.3 Technical intraocular 4.4 Consideration postoperative</p>	
<p>5. Professional ethics</p>	<p>Learning time: 20h Theory classes: 3h Practical classes: 1h 30m Guided activities: 3h Self study : 12h 30m</p>
<p>Description: 5.1 Bioethics and eyecare 5.2 Code of Ethics and ethics committees DOO Law and duties 5.3-consumer 5.4-Protection of personal data and medical history Optical 5.5-healthcare establishments.</p>	



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6- Visual therapy	Learning time: 4h Theory classes: 4h
Description: -	

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Planning of activities

THE LABORATORY PRACTICES	Hours: 54h Laboratory classes: 44h Self study: 10h
<p>Description: All practices should be done in the laboratory will be small group sessions of 2 hours. Students must come prepared having the practice session. In the practical sessions must be examinations visual peers or students of previous years.</p> <p>Support materials: All materials necessary for carrying out the practices found in the laboratory.</p>	
2. COMPULSORY ACTIVITY 1:	Hours: 17h Theory classes: 2h Self study: 15h
<p>Description: ...</p> <p>Support materials: Description of the activity on the intranet.</p>	
WRITTEN EVIDENCE OF THE CONTENTS OF THE COURSE	Hours: 12h Theory classes: 2h Self study: 10h
<p>Description: Resolution, individually, in different cases and issues related to theoretical and practical content of the course. It is a classroom activity.</p> <p>Support materials: Description of the activity on the intranet.</p>	
OPEN LABORATORY	Hours: 15h Self study: 15h
<p>Description: Students have at their disposal to improve the laboratory teaching their clinical learning.</p> <p>Support materials: Be published on the intranet in the days and hours that can access the facilities so that students can join them.</p>	

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Regulations for carrying out activities

In case of partial or total copy of any evaluations of the course will apply the provisions of General Academic Regulations UPC: perform any act of fraudulently assessment involves, at least a score of 0 in that self evaluation, and possibly more severe disciplinary processes.

Bibliography

Basic:

- Borràs García, M.R. [et al.]. Visión binocular: diagnóstico y tratamiento. Barcelona: Edicions UPC, 1996. ISBN 848301159X.
- Amos, John F. Diagnosis and management in vision care. Boston: Butterworths, 1987. ISBN 0409950823.
- Flanagan, John [et al.]. Clinical procedures in primary eye care. Oxford: Butterworth-Heinemann, 1997. ISBN 0750632135.
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- Machat, Jeffery J. El arte del LASIK. 2ª ed. Thorofare: Slack Inc., 1999. ISBN 1556423861.

Complementary:

- Werner, D. Leonard. Clinical pearls in refractive care. Boston: Butterworth Heinemann, 2002. ISBN 0750699124.
- Steinman, S.B.; Steinman, B.A.; Garzia, R.P. Foundations of binocular vision: a clinical perspective. New York: McGraw-Hill, 2000. ISBN 0838526705.
- Goss, David A. Ocular accommodation, convergence, and fixation disparity: a manual of clinical analysis. 2nd ed. Boston: Butterworth-Heinemann, 1995. ISBN 0750694971.
- Montes, R. Cirugía refractiva (Programa de la serie cirugía refractiva editado por el CNOO). Gaceta Óptica,
- Villa Collar, César. Cirugía refractiva: para ópticos-optometristas. Madrid: Colegio Nacional de Ópticos-Optometristas, 2001. ISBN 8493175315.
- Yanoff, M.; Duker, Jay S. Ophthalmology. 3rd ed. [S.l.]: Mosby, 2009. ISBN 9780323043328.

Others resources: