

370523 - OPTOMETRIA - Peadiatric and Geriatric Optometry

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: Auge Serra, Montserrat (<http://futur.upc.edu/MontserratAugeSerra>)
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Degree competences to which the subject contributes

Specific:

1. Being able to perform literature searches.
14. Being able to design and create the optimal work environment to prevent the development of visual problems
15. Knowing how to do clinical examinations and interpret the results
16. Establish protocols, analyze results and elaborate the corresponding reports
17. Designing protocols for prevention of visual health
18. Detecting the need to derive the patient with the corresponding report to the appropriate professional and be able to collaborate keeping the follow-up of the patient
19. Ability to write and interpret a report
20. Acquire skills in patient care
21. Communicate and inform the patient of all the tests to be performed and the results of clinical evaluation
22. Applying an specific anamnesis to extract relevant information.
23. To interpret the results and determine if necessary a treatment.
24. Value the need to realize complementary tests. Realize and interpret correctly the results of these tests (visual field, layouts,...)
25. Prioritize treatment options.
26. Individualize treatment planning.
27. Producing accurately diagnoses and remission reports.
28. Recognize the characteristics of different population groups according to the age, or demands or visual needs.
29. To evaluate the prescription given the different population groups (age, activities ...), and set specific criteria for

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selecting frame and lens for each case.

30. Transmit the user the necessary information for make a good use of the compensator system (prescription glasses, protective glasses or optical aids)

31. Do the following-up of the treatment and value the satisfaction of 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. Assessing the chances of successful implementation of a specific therapy based on the visual results of the refractive and binocular evaluation.

34. Select the appropriate optical aid according to the patient's visual limitations.

35. Design and implement visual therapy programs adapted to the characteristics of visual dysfunction, personality and age of each patient.

36. Track and control of visual therapy in accordance with the corresponding protocols.

Generical:

2. Take part actively in the social development tied to the maintenance of the health and optimum functionality of the visual system

3. To think critically about clinical ethical issues, involved in the political and social exercise of optometry

4. Being able to collaborate on initiatives, both locally and globally, committed to improving the visual health of the population

5. Extract the main points of a text or any source of information (oral or written)

6. Synthesize and organize information to convey it effectively orally and / or written

7. Display information orally and in writing of reasonably and coherent.

8. Develop empathy with people

9. Judgments (ratings) reports and surveys

10. Locate new information and the interpretation of it in its context.

11. Value and incorporate technological necessary improvements for the proper development of the profession

12. Encourage methodical work, rigorous, consistent and innovative

13. Working with evidence, methodology and rigour.

Teaching methodology

The course consists of 3 hours per week of classroom lectures (large group) and 14 sessions of three hours in the laboratory in small group (practices).

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

Learning objectives of the subject

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At the end of the Pediatric and geriatric optometry course, the student must have achieved the following objectives:

- Develop communication skills, data records and preparation of the clinical history
- Acquire the ability to interpret clinical results of visual tests performed in order to establish the diagnosis and treatment.
- Know to make a complete anamnesis
- Acquire the ability to prescribe, control and monitoring of made optical corrections
- To know, apply and interpret the evidence related to the instrumental visual health problems
- To know and apply the evaluation in low vision
- To know the changes related to aging processes of perception.
- Acquire the clinical skills needed to perform visual examination and treatment of patients
- Acquire the ability to examine, diagnose and treat visual anomalies with particular emphasis on differential diagnosis
- To know the different protocols applied to patients.
- Identify and analyze environmental and labor risk factors that can cause vision problems.

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>Unit 1: Communication with the patient</p>	<p>Learning time: 19h Practical classes: 2h Laboratory classes: 8h 30m Self study : 8h 30m</p>
<p>Description: 1.1. Oral communication with the patient the result of visual evaluation. 1.2. Oral communication with the patient of the proposed treatment.</p>	
<p>Unit 5: Geriatric Optometry</p>	<p>Learning time: 46h Practical classes: 9h Laboratory classes: 12h Self study : 25h</p>
<p>Description: 5.1. Gerontology 5.1.1. Gerontology / geriatrics. Aging process 5.1.2. Demography and epidemiology 5.1.3. Care resources 5.2. Description and analysis of visual impairment in the geriatric age 5.2.1. Organic and functional visual modifications linked to the aging process 5.2.2. Frequent diseases in the geriatric population and their visual impairment 5.3 .. Evaluation and optometric treatment of a geriatric patient 5.3.1.Features in the optometric examination 5.3.2. Criteria for prescription and treatment</p>	
<p>Unit 3: Evaluation in Low Vision</p>	<p>Learning time: 41h Practical classes: 9h Laboratory classes: 6h Self study : 26h</p>
<p>Description: (ENG) Related activities: (ENG)</p>	

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Unit 2: Strabismus and Amblyopia	Learning time: 54h Practical classes: 12h Laboratory classes: 6h Self study : 36h
Description: (ENG) Related activities: (ENG)	
Unit 4: Pediatric Optometry	Learning time: 42h Practical classes: 9h Laboratory classes: 6h Self study : 27h
Description: (ENG)	
title english	Learning time: 14h Laboratory classes: 1h Self study : 13h
Description: content english	

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Planning of activities

(ENG) TÍTOL UNITAT 5: OPTOMETRIA GERIÀTRICA (PRÀCTIQUES LABORATORI)	Hours: 28h Laboratory classes: 16h Self study: 12h
(ENG) TÍTOL UNITAT 5: OPTOMETRIA GERIÀTRICA (EXERCICIS OBLIGATORIS)	Hours: 27h Theory classes: 11h Self study: 16h
(ENG) UNITAT 2: ESTRABISMES I AMBLIOPIA (PRÀCTIQUES EN LABORATORI)	Hours: 17h Laboratory classes: 10h Self study: 7h
(ENG) UNITAT 2: ESTRABISMES I AMBLIOPIA (EXERCICIS OBLIGATORIS)	Hours: 28h Theory classes: 12h Self study: 16h
(ENG) UNITAT 4: OPTOMETRIA INFANTIL (PRÀCTIQUES EN LABORATORI)	Hours: 11h Laboratory classes: 6h Self study: 5h
(ENG) UNITAT 4: OPTOMETRIA INFANTIL (EXERCICIS OBLIGATORIS)	Hours: 21h Theory classes: 9h Self study: 12h
Unitat 3. Assessment and the Baixa Visió (Pràctiques of laboratori)	Hours: 6h Laboratory classes: 6h
Unit 3. Assessment of Low Vision (compulsory exercises)	Hours: 29h Theory classes: 29h
(ENG)	Hours: 3h Laboratory classes: 3h

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name english	Hours: 3h Laboratory classes: 3h
name english	Hours: 6h Laboratory classes: 6h

Regulations for carrying out activities

Do not attend three or more laboratory sessions will result in a suspension of the evaluation of the work reports of the laboratory (L).

If not done any of the laboratory activities and continuous assessment will be considered evaluated with a zero.

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 test, and possibly more severe disciplinary processes.

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Bibliography

Basic:

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- Pacheco M.; Varón C. "Optometría geriátrica: cambios involutivos oculares esperados en la vejez". Gaceta óptica. Núm. 284 (julio 1995), p. 16-19.
- Ondategui Parra, J.C. "Optometría geriátrica: cambios que afectan la función visual (I)". Ver y oír. Vol. 22, núm. 201 (diciembre 2005), p. 688- 693.
- Borràs Garcia, M.R. [et al.]. 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 848301159X.
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- Hugonnier, R.; Hugonnier, S. Estrabismos, heteroforias y parálisis oculomotrices: desequilibrios oculomotores en clínica. 2ª ed. Barcelona: Toray-Masson, 1977. ISBN 8431101393.
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- Von Noorden, G.K.; Campos, E.C. Binocular vision and ocular motility: theory and management of strabismus [on line]. 6th ed. St. Louis: Mosby, 2002 [Consultation: 13/05/2013]. Available on: <http://www.cybersight.org/bins/content_page.asp?cid=1-2193>. ISBN 0323011292.
- Rosenbloom, A.A.; Morgan, M.W. Principles and practice of pediatric optometry. Philadelphia: Lippincott, 1990. ISBN 0397509170.
- Scheiman, M.M.; Rouse, M.W. Optometric management of learning-related vision problems. 2nd ed. St. Louis: Mosby Elsevier, 2006. ISBN 0323029655.
- Barnard, S.; Edgar, D. Pediatric eye care. 1996. Oxford: Blackwell, 1996. ISBN 0632039795.
- Harvey, W.; Gilmartin, B. Paediatric optometry. Edinburgh: Butterworth-Heinemann, 2004. ISBN 0750687924.
- Leat, S.J.; Shute, R.H.; Westall, C.A. Assessing children's vision: a handbook. Oxford: Butterworth-Heinemann, 1999. ISBN 0750605847.

Complementary:

- Kanski J.J. Oftalmología clínica. 6ª ed. Barcelona: Elsevier, 2009. ISBN 9788480864411.
- Ciuffreda, K.J.; Levi, D.M.; Selenow, A. Amblyopia: basic and clinical aspects. Boston: Butterworth-Heinemann, 1991. ISBN 0409951714.
- Rosenbaum, A.L.; Santiago, A.P. Clinical strabismus management: principles and surgical techniques. Philadelphia: Saunders, 1999. ISBN 9780721676739.

Others resources: