**370523 - OPTOMETRIA - Pediatric 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)

**Others:**
- Sánchez Herrero, Eulalia (http://futur.upc.edu/EulaliaSanchezHerrero)
- Pacheco Cutillas, Mireia (http://futur.upc.edu/MireiaPachecoCutillas)
- Burgos, Francisco J. (http://futur.upc.edu/FranciscoJavierBurgosFernandez)

**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
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

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
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

<table>
<thead>
<tr>
<th>Total learning time: 216h</th>
<th>Hours large group:</th>
<th>0h</th>
<th>0.00%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>48h</td>
<td>22.22%</td>
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<tr>
<td></td>
<td>Hours small group:</td>
<td>42h</td>
<td>19.44%</td>
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<tr>
<td></td>
<td>Guided activities:</td>
<td>0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Self study:</td>
<td>126h</td>
<td>58.33%</td>
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</tbody>
</table>
### Unit 1: Communication with the patient

**Learning time:** 19h  
Practical classes: 2h  
Laboratory classes: 8h 30m  
Self study: 8h 30m

**Description:**  
1.1. Oral communication with the patient the result of visual evaluation.  
1.2. Oral communication with the patient of the proposed treatment.

### Unit 5: Geriatric Optometry

**Learning time:** 46h  
Practical classes: 9h  
Laboratory classes: 12h  
Self study: 25h

**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

### Unit 3: Evaluation in Low Vision

**Learning time:** 41h  
Practical classes: 9h  
Laboratory classes: 6h  
Self study: 26h

**Description:**  
(ENG)

**Related activities:**  
(ENG)
## 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
### 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 de 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 |
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.
Bibliography

Basic:

Complementary:

Others resources: