



## Course guide

# 370514 - PROCEDIMEN - Clinical Procedures in Optometry

Last modified: 11/06/2021

**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 2009). (Compulsory subject).

**Academic year:** 2021    **ECTS Credits:** 6.0    **Languages:** Catalan

### LECTURER

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**Coordinating lecturer:** Guisasola Valencia, Laura (<http://futur.upc.edu/LauraGuisasolaValencia>)

**Others:** Vila Vidal, Núria (<http://futur.upc.edu/NuriaVilaVidal>)  
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Borras García, Maria Rosa (<https://futur.upc.edu/MRosaBorrasGarcia>)

### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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**Specific:**

7. Knowing how to do clinical examinations and interpret the results
8. Do properly refractive vision exams
9. Do properly binocular and accommodative tests.
11. Know interpret functional and health test results of the visual system.
13. Interpret the registers obtained with different techniques. Determine the status of ocular structures.

**Generical:**

1. Extract the main points of a text or any source of information (oral or written)
2. Synthesize and organize information to convey it effectively orally and / or written
3. Display information orally and in writing of reasonably and coherent.
5. Encourage methodical work, rigorous, consistent and innovative
6. Working with evidence, methodology and rigour.

### TEACHING METHODOLOGY

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To take advantage of the course, follow the directions contents and terms described in Atenea.

### LEARNING OBJECTIVES OF THE SUBJECT

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At the end of the course of clinical procedures in optometry, the student has to have achieved the following objectives:

- Acquire skills in the instrument testing for assessing visual function and eye health.
- Ability to measure and interpret the refractive defects.
- Understand the principles and have the ability to measure accommodative anomalies of binocular vision.
- To apply and interpret the evidence related to the instrumental visual health problems.
- Ability to measure and interpret the data obtained in psychophysical assessment of visual perception.
- Acquire the skills necessary for clinical examination and treatment of patients.



## STUDY LOAD

Type	Hours	Percentage
Hours medium group	24,0	15.38
Hours small group	48,0	30.77
Self study	84,0	53.85

**Total learning time:** 156 h

## CONTENTS

### 1. Introduction to Optometry

**Description:**

1. 1. History of Optometry
1. 2. Visual examination scheme
1. 3. preliminary
  1. 3. 1. interpupillary distance

**Related activities:**

Labs:

Practice. - The optometric office.

**Full-or-part-time:** 2h

Practical classes: 1h

Self study : 1h

### 2. Refractive Exams

**Description:**

- 2.3. retinoscopy
  2. 3. 1. Clinical usefulness of retinoscopy
  2. 3. 2. Characteristics of reflection retinoscópico
  2. 3. 3. Method of neutralizing ametropia
2. 4. Subjective examination of refraction in VL
  2. 4. 1. Review monocular
  2. 4. 2. Biocular and binocular balance

**Full-or-part-time:** 16h

Practical classes: 6h

Self study : 10h

### 3. Binocular vision and accommodation tests

**Description:**

- 3. 1. Sensory aspects of binocular vision
- 3. 2. sensory examination
  - 3. 2. 1. Simultaneous assessment of Perception
  - 3. 2. 2. Assessment of Fusion
  - 3. 2. 3. Assessment of stereopsis
- 3. 3. Motor aspects of binocular vision
  - 3. 3. 1. Components of the convergence
  - 3. 3. 2. Latent and manifest deviations
- 3. 4. Motor examination. Description, normal values "and interpretation of results:
  - 3. 4. 1. Lateral phoria and reservations
  - 3. 4. 2. Vertical phoria and reservations
  - 3. 4. 3. Graphing
  - 3. 4. 4. Near point of convergence
  - 3. 4. 5. Flexibility of convergence
- 3. 5. Components of accommodation and proximal triad
- 3. 6. Tests accommodative. Description, normal values "and interpretation of results:
  - 3. 6. 1. Amplitude of accommodation
  - 3. 6. 2. Relative amplitudes: RNA and ARP
  - 3. 6. 3. accommodative lag
  - 3. 6. 4. Flexible accommodation

**Full-or-part-time:** 26h

Practical classes: 8h

Self study : 18h

### 4. Eye Health Exams

**Description:**

- 4. 1. oculomotrices skills
  - 4. 1. 1. fixation
  - 4. 1. 2. saccadic
  - 4. 1. 3. monitoring
- 4. 2. Visual Field
  - 4. 2. 1. Examination Techniques
  - 4. 2. 2. Interpretation of automated perimetry results
- 4. 3. ophthalmoscopy
  - 4. 3. 1. Techniques for observing the fundus
  - 4. 3. 2. Exploration of the fundus
- 4. 4. Color Vision
  - 4. 4. 1. Classification of abnormal color vision
  - 4. 4. 2. Description of tests to evaluate color vision
  - 4. 4. 3. Interpretation of results in each test
- 4. 5. pupillary function
  - 4. 5. 1. Examination of pupillary function
  - 4. 5. 2. Disorders of pupillary function
- 4. 6. tonometry
  - 4. 6. 1. Factors that alter the intraocular pressure
  - 4. 6. 2. Measurement techniques
- 4.7. Biomicroscopy

**Full-or-part-time:** 25h

Practical classes: 7h

Self study : 18h



## ACTIVITIES

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### 5. GLOBAL THEORY TEST

**Specific objectives:**

The student must demonstrate that it has achieved the objectives of the course.  
The comprehensive test includes all course content and has a weight of 100%.

**Full-or-part-time:** 13h

Practical classes: 2h

Self study: 11h

## GRADING SYSTEM

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### EXAMINATION RULES.

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- In case of partial or total copy of any evaluations of the course will apply the provisions of General Academic Regulations of the UPC: "Les accions irregulars que poden conduir a una variació significativa de la qualificació d'un o més estudiants constitueixen una realització fraudulenta d'un acte d'avaluació. Aquesta acció comporta la qualificació descriptiva de suspens i numèrica de 0 de l'acte d'avaluació i de l'assignatura, sense perjudici del procés disciplinari que es pugui derivar com a conseqüència dels actes realitzats".
- La qualificació de no presentat, que significa que l'estudiant no ha estat avaluat, s'atorga quan no ha participat en cap dels actes d'avaluació previstos per a l'assignatura, excepte en el cas que la guia docent de l'assignatura publicada especifiqui alguna cosa diferent.

## BIBLIOGRAPHY

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**Basic:**

- Carlson, Nancy B. [et al.]. Procedimientos clínicos en el exámen visual. Madrid: Ciagami, 1994. ISBN 8488985002.
- Borràs, M. Rosa [et al.]. Optometría: manual de exámenes clínicos. 3a ed. Barcelona: Edicions UPC, 1999. ISBN 8483013096.

**Complementary:**

- Optometria. Barcelona: Masson, 1993. ISBN 8445800574.
- Eskridge, J. Boyd. Clinical procedures in optometry. Philadelphia: J.B. Lippincott Company, 1991. ISBN 0397509847.
- Borish's clinical refraction. Philadelphia: W.B. Saunders, 1998. ISBN 0721656889.