

26815 - Ocular Pathology and Pharmacology

Información del Plan Docente

Academic Year	2016/17
Academic center	100 - Facultad de Ciencias
Degree	297 - Degree in Optics and Optometry
ECTS	10.0
Course	3
Period	Annual
Subject Type	Compulsory
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

The learning process that is designed for this subject is based on the following points:

1. In-site Education (10 ECTS credits, 100 hours)

1.1 Formative Activity 1 (Large Groups): Acquisition of basic knowledge about eye disease and recognition of the importance of eye diseases with particular attention to the diseases associated with old age.

26815 - Ocular Pathology and Pharmacology

* Methodology:

- Introductory Lectures (Theoretical program, 38 lessons, 40 hours, 4 ECTS credits)

1.2 Formative Activity 2 (Small Groups / Subgroups): practical clinical experience regarding the evaluation and management of ocular pathologies.

* Methodology:

- Practices in hospital, external practices. Learning activities with real patients (40 hours, 4 ECTS credits)

- Problems and Cases Seminars. (10 hours, 1 ECTS credits)

- Laboratory practices. Workshops. Seminars. (10 hours, 1 ECTS credits)

2. Off-site activities (10 ECTS credits, 150 hours)

It is the independent student work devoted to the study of the theoretical program and the preparation of seminars and workshops before and after delivery.

This activity relies majorly on the online activities of the "Anillo Digital Docente" that complements in-site lectures and activities.

Consists of:

- General Course information stating the program objectives and evaluation criteria.

- Documents that instruct how to prepare Seminars, Workshops and Practices.

Preparation and presentation of an individual work under supervision

- Library Podcasts: clinical and surgical procedures

- Practical Clinical cases that complement the theoretical lectures.

- Questionnaire of possible test questions to assist the students with their preparation.

5.2.Learning activities

1: Theoretical Program Ocular Pathology and Pharmacology.

26815 - Ocular Pathology and Pharmacology

2:
Seminar Program: Ocular Pathology and Pharmacology.
Seminar 1: Fluorescein Angiography. Bases and foundations.
Seminar 2: Anterior Segment OCT
Seminar 3: Evaluation of the visual field
Seminar 4: Diagnostic protocols in glaucomatous disease.
Seminar 5: Loss of Visual Acuity.
Seminar 6: Dysfunction Syndrome of Meibomian glands.
Seminar 7: Exploration of visual function in neuro-ophthalmological diseases.
Seminar 8: Electrophysiology of the visual system.
Seminar 9: The image in Ophthalmology
Seminar 10: Video-Ophthalmology.

3:
Workshop Program Ocular Pathology and Pharmacology.
Workshop 1: Glaucoma screening program. Optometric approach.
Workshop 2: Protocol of screening of Vascular Retinopathy. Telemedicine
Workshop 3: Optometric Solutions and applications to eye diseases.
Workshop 4. Algorithms of Diagnosis of Ocular surface disease. Differential diagnosis of the Red Eye.

4:
In-hospital practices.
- To be performed at the University Hospital "Miguel Servet" and H. Clinico Universitario "Lozano Blesa"

5.3.Program

Unit I. Ocular Pharmacology

- 1. Concept of Pharmacology. General cycle of drugs.
- 2. Pharmacokinetics. Absorption of drugs and routes of administration.
- 3. Pharmacokinetics. Drug metabolism.
- 4. Pharmacodynamics. Action, effect and mechanism of action.
- 5. Pharmacodynamics. drug interactions. Synergies and antagonisms.
- 6. Pharmaceutical. Factors influencing bioavailability.
- 7. Pharmaceutical. Preparations for ophthalmic use.
- 8: Pharmaceutical. lacrimal substitutes.

Unit II. Basics.

- 9. Ophthalmological Clinic History. Ophthalmological semiotics.
- 10. Basic Clinical ophthalmological examination.
- 11. Examination Techniques in Ophthalmology.

Unit III. Preventive Ophthalmology.

26815 - Ocular Pathology and Pharmacology

- 12. Primary Open Angle Glaucoma.
- 13. Vascular Retinopathies.
- 14. Intraocular tumors.

Unit IV. Visual acuity decreased.

- 15. Optic pathology.
- 16. Intermediate Uveitis.
- 17. Posterior Uveitis. Endophthalmitis.
- 18. Papilledema.
- 19. Anterior and posterior optic neuropathies.
- 20. Pathology of the optic chiasm and retrochiasmatic way.
- 21. Macular degeneration, age-related.
- 22. Central retinal degenerations.
- 23. Retinal vascular occlusions.
- 24. Vitreoretinal hemorrhages. Retinal detachment (peripheral retinal degenerations).

Unit V: Differential Diagnosis. Red eye.

- 25. Pathology eyelids. Inflammatory. Tumoral. Alterations in shape and position.
- 26. Dry Eye Syndrome. Concept. Etiopathogenesis. Classification.
- 27. Dry Eye Syndrome. Clinical manifestations. diagnostic orientation.
- 28. Pathology of the conjunctiva I: Conjunctivitis.
- 29. Pathology of the conjunctiva II: degenerations. Scleral Tumors .

- 30. Corneal Pathology I: Keratitis.
- 31. Corneal Pathology II: dystrophy and degeneration.
- 32. Acute glaucoma.
- 33. Anterior uveitis.

Unit VI. Ocular trauma.

- 34. Topic traumatic syndrome anterior and posterior segment.

Unit VII. Advanced neuro-ophthalmology.

- 35. Pupil disorders.
- 36. Nistagmus. Facial spasm. Headaches.
- 37. Cranial nerve palsies.

Unit VIII. Lachrymal pathology and ocular adnexa.

- 38. Pathology of the lacrimal drainage system.
- 39. Pathology orbital. Thyroid ophthalmopathy.

5.4.Planning and scheduling

Calendar of in-site sessions and presentation of results of activities

Academic Calendar Course:

A calendar of training activities of the subject and the configuration of the groups set will be provided by the coordinator of the the Grade. The timetables and activities will be available to students in the ADD (Moodle 2).

5.5.Bibliography and recommended resources

26815 - Ocular Pathology and Pharmacology

BB García Feijóo, Julián. Manual de oftalmología / Julián García-Feijóo, Luis E. Pablo-Júlvez ; [colaboradores, Emilio Abecia Martínez... et al.] Barcelona : Elsevier, D.L. 2012

BB Kanski, Jack J.. Oftalmología clínica / Jack J. Kanski ; fotógrafos, Irina Gout, Kulwant Sehmi, Anne Bolton ; ilustradores, Terry R. Tarrant, Phil Sidaway ; [revisión científica, Juan Antonio Durán de la Colina] . - 6ª ed. Ámsterdam ; Barcelona ; Madrid [etc.] : Elsevier, cop. 2009

BC Atlas de oftalmología clínica / editado por David J. Spalton, Roger A. Hitchings, Paul A. Hunter ; [revisión, Miguel Ángel Calvo Arrabal] . - 3ª ed. Madrid ; Barcelona [etc.] : Elsevier, cop. 2006

BC Duane, Thomas D.. Duane's Ophthalmology on CD-ROM [recurso electrónico] / edited by William Tasman and Edward A. Jaeger. - 2006 ed. 2006 ed.

BC Duane's Ophthalmology [recurso electrónico] / editors, William Tasman, Edward A. Jaeger . 12th ed. 12th ed.

BC The Wills Eye Hospital atlas of clinical ophthalmology / edited by William Tasman, Edward A. Jaeger. - 2nd ed. Philadelphia [etc.] : Lippincott Williams & Wilkins, cop. 2001