

**Academic Year/course: 2021/22**

## **26770 - Surgical Specialties (Ophthalmology and Otolaryngology)**

### **Syllabus Information**

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**Academic Year:** 2021/22

**Subject:** 26770 - Surgical Specialties (Ophthalmology and Otolaryngology)

**Faculty / School:** 104 - Facultad de Medicina

**Degree:** 304 - Degree in Medicine

**ECTS:** 6.0

**Year:** 3

**Semester:** First semester

**Subject Type:** Compulsory

**Module:**

## **1. General information**

### **1.1. Aims of the course**

The subject and its expected results meet the following approaches and objectives: The subject of Ophthalmology has the following objectives:

Acquire basic knowledge in the field of ophthalmology, to train and encourage for further specialization performing tasks.

Contribute to early diagnosis and treatment of the most common eye diseases, also developing possible preventive measures.

Collaborate in health education of the population with regard to early diagnosis of pathological processes that can compromise the territories of our specialty.

Develop a capacity for analysis and synthesis of data from the clinical history and examination of patients, to start a working hypothesis founded that will lead to a diagnosis judgment through an appropriate methodology.

Establish appropriate criteria for the application of specialized medical care in the diagnosis and treatment of pathological processes comprising Ophthalmology.

Learn the basics of the therapeutic indications, developing their ability to critically discern the most appropriate for each patient therapeutic alternatives.

Develop their ability to use information sources in Ophthalmology, also learning to value ratios outpatient and hospital care quality and management of available resources.

Finally, with these objectives, the aim is to get a comprehensive education of students who should form the basis of the formation of the current general practitioner and future, putting him in a position to evaluate new diagnostic and therapeutic procedures that arise in the future developments in the field. The subject of Otolaryngology has the following general objectives

Contribute to the prevention of diseases that can affect the ear, nasal passages and sinuses, pharynx, larynx and head and neck region.

Collaborate in health education of the population with regard to early diagnosis of pathological processes that can compromise the territories of our specialty.

Perform tasks care of the most important disease entities ear, nasal passages and sinuses, pharynx, larynx and head and neck region.

Establish appropriate criteria for the application of specialized medical care in the diagnosis and treatment of pathological processes comprising Otolaryngology.

Acquire basic knowledge in the field of Otolaryngology, which enable and encourage for further specialization performing tasks.

Report the most important aspects of the investigation of pathological processes of the ear, nasal passages and sinuses, pharynx, larynx and head and neck region.

In terms of the Sustainable Development Goals to combat global poverty, this subject will contribute to improving the global quality of life for future generations by acting mainly on the following two SDGs:

- Health and well-being. The health of the population will be improved by optimizing the training of the future health professionals of our population, so that they will be able to carry out efficient preventive actions and improve the quality of life of the population, mainly with regard to their visual and hearing health.

- Quality education. Quality education will be promoted based on the acquisition of appropriate theoretical and practical content, with the help of the teacher acting as a guide for the student's self-learning; as well as the acquisition of clinical skills in future health professionals (ability to make a correct anamnesis and conduct it efficiently, carry out an appropriate clinical

examination and interpret the results of the same).

## 1.2. Context and importance of this course in the degree

The teaching of Ophthalmology must favor the acquisition of professional values, and appropriate behaviors that allow them to deal with eye problems in the general population.

Ophthalmology is a medical-surgical specialty characterized by having within its scope with very high incidence diseases and chronic diseases with high prevalence, especially in elderly patients. Because of these characteristics, an important part of the eye disease is diagnosed and treated by general practitioners. Otolaryngology is one of the specialties most prevalent pathological processes in the usual medical-surgical practice, both adult and child.

Thus, an important part of the otorhinolaryngology pathology is treated by general practitioners. In fact, family doctors and pediatricians admit that 40% of his practice is related to problems of ear, nose and throat.

Therefore, the teaching of Otolaryngology must favor the acquisition of knowledge and behaviors that allow the healthcare professional, solve problems Otorhinolaryngologic the general population. Moreover, Otolaryngology is of great importance since it refers to three of the five organs of the senses: smell, taste and hearing and sensory skills as important as the equilibration.

In addition, Otolaryngology should be considered the specialty of communication studies since the ear and larynx, which are two key components of it.

Moreover, Otolaryngology should be considered as a specialty of extraordinary importance, to engage the attention of the sphincter of the respiratory system: larynx.

## 1.3. Recommendations to take this course

It is recommended to have passed the following subjects: Human Anatomy, Biology, Human Biochemistry, Physiology General Morphology Structure and Function I, II and III, Semiotics and Fundamentals of Pathophysiology, diagnostic and therapeutic procedures microbiological and physical diagnostic and therapeutic procedures

# 2. Learning goals

## 2.1. Competences

### BASIC

Students can apply their basic knowledge to a specific knowledge area, as is the area of surgical specialties.

Students have the ability to gather and interpret relevant data to draw conclusions applicable in the scientific field.

Students can transmit information on scientific problems and technical solutions to both specialist and non-specialist public.

Students develop skills to undertake further studies with a high degree of autonomy.

### CROSSCUTTING

Students master the pathologies that can affect the apparatus of vision and the respiratory system, mainly with regard to tumor pathology, to the way lacrimo-nasal, and those pathological situations that may compromise the relationship between the orbit and the sinuses.

### SPECIFIC

Students can recognize, diagnose and guide treatment of the main pathologies of Ophthalmology and Otolaryngology.

Students how to perform and interpret basic tests of both specialties.

## 2.2. Learning goals

In order to pass this subject, the student must demonstrate the following results:...

In the subject of Ophthalmology, the student, after passing this speciality, must demonstrate the following results:

1. Correctly carry out the anamnesis of patients and be able to adequately assess the basic ophthalmological semiology of the most prevalent ocular diseases.
2. Explain the general functioning of an Ophthalmology Department and know how to assess the type of relationships that should exist in these services between doctors, nursing staff, patients and relatives.
3. Learn to behave appropriately in the operating theatre, knowing the techniques of asepsis and antisepsis. Recognise and understand the fundamentals of the surgical techniques most commonly used in the speciality.
4. Be able to solve clinical problems related to ophthalmology, elementary clinical practice, visual acuity testing with optotypes, basic emergency care and criteria for care and referral.
5. The student will be able to establish the diagnosis, prognosis and treatment of the most prevalent ophthalmological diseases.

In the subject of Otorhinolaryngology, the student, having passed this speciality, must demonstrate the following results:

1. Perform a complete anamnesis of the pathological processes of the nasal cavities, paranasal sinuses, pharynx, larynx and cervico-facial region.
2. Perform an elementary exploration of these regions, interpreting the significance of the findings obtained.
3. Orientate the diagnosis of the most important pathological problems of the ear, nasal cavities, paranasal sinuses, pharynx, larynx and cervico-facial region.
4. Establish, in each of the pathological processes studied, the criteria for referral to specialised care.
5. Indicate the most appropriate elementary therapy for the most frequent pathological processes.

### 2.3. Importance of learning goals

With the above objectives it is to get the student's training in specific knowledge of the matter. This specific training must, in turn, integrate general education of current medical and train future physician to assess and incorporate new diagnostic and therapeutic procedures that arise in the evolution of the various areas of medical knowledge.

## 3. Assessment (1st and 2nd call)

### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

The student must demonstrate that he/she has achieved the intended learning outcomes through the following assessment activities.

The assessment may contain aspects of partial assessment.

In this sense, the lecturer of each of the two subjects may propose, during each of the Large Group Teaching sessions, different questions to the different students on the list of registered students: the students' answers may be taken into account at the time of the final assessment or the awarding of the Honours Degree.

Likewise, the lecturer may carry out, during class time, surveys on the students' level of achievement. In the same way, these surveys may be taken into account at the time of the final assessment or the awarding of the Honours Degree.

On the other hand, although the qualification of this subject will be global, the evaluation will be carried out individually in each of the subjects that comprise it.

Thus, students must demonstrate that they have achieved the expected learning outcomes by means of the following assessment activities:

In the subject of Ophthalmology:

- Assessment of the level of achievement of the large group teaching activity: 70% of the final mark. The exam will include questions from the theoretical syllabus. It will consist of 40 multiple-choice questions (4 distracting answers and 1 valid answer) which will be graded from 0 to 7 points and will account for 70% of the final mark for the subject. In order to pass the subject, it will be essential to obtain at least a mark of 50% in this exam (3.5 points). Questions answered incorrectly will deduct ? of a question and those not answered will not deduct any marks.
- Assessment of the level of achievement of the small group teaching activity: 20% of the final mark. The assessment will be carried out by the lecturer in charge by means of an evaluation system with short questions and voluntary interventions, based on specific documents for each of the sessions, available in the ADD, and which the student will have studied prior to carrying out the aforementioned activities. They will be graded from 0 to 2 points and therefore represent 20% of the final mark for the subject. In order to pass the subject, it will be essential to attend 90% of them and obtain at least a grade of 1 point (10% of the subject).
- Continuous assessment of the student's individual study and learning throughout the course: 10% of the final mark. The assessment will be carried out throughout the course of the subject by means of questionnaires (preferably assisted by means of the Moodle platform) that will evaluate the student's learning of the theoretical and practical contents taught in advance in the subject. These tests will not be announced in advance to the student and may be taken in any class of the teacher's choice. They will consist of multiple-choice questions with 4 distracting answers and 1 valid answer. Questions answered incorrectly will deduct ? of a question and those not answered will not deduct any marks.

In the subject of Otorhinolaryngology:

- Assessment of the level of achievement of the large group teaching activity, which will represent 80% of the final mark. The exam will include, exclusively, questions related to large group teaching, the so-called Master Classes. It will consist of 40 multiple-choice questions (with 4 distracting answers and 1 valid answer) which will be graded, as an overall mark, from 0 to 8 points, and which will represent 80% of the final mark for the subject. The correction will

be automatic and will be carried out by the corresponding Unizar service. In order to pass the subject, it will be essential to obtain at least a mark of 50% in this assessment, that is to say, 4 points out of a possible 8.

- Assessment of the level of achievement of the small group teaching activity, which will represent 20% of the final mark. The assessment will be carried out by two lecturers, who will propose a clinical case to each student, which may include images. The aforementioned clinical case will refer exclusively to the subjects of the small group teaching, the so-called Seminars. After the presentation of the case study, the lecturers will ask the student a series of oral questions, aimed at assessing their level of achievement in the small group teaching sessions, so that they will be graded from 0 to 2 points, which will account for 20% of the final mark for the subject. In order to pass the subject, it will be essential to obtain, as a minimum, in this evaluation, a grade of 1 point.

Both in the field of Ophthalmology and Otolaryngology matter, the final grade of seminars, workshops and practices will remain for the second call.

Overall assessment of Surgical Specialties: As already it noted, to pass the subject of Surgical Specialties is necessary to obtain half the possible score in each of the tests, both in Ophthalmology and Otolaryngology. The student who attends the course of Surgical Specialties receive, after their training period, and corresponding assessments for each of the materials that comprise an overall rating of that subject. This mark will be the average of the respective marks obtained in the two different materials that make up the subject. The results obtained by the student will be graded according to numerical scale with one decimal and corresponding qualitative rating (Article 5 of the RD 1125/2003.), So that:

- 0 - 4.9 Suspense
- 5.0 - 6.9 Approved
- 7 - 8.9 Notable 7.0 8.9
- 9 -10 Outstanding

It should be noted, however, that to achieve the passing mark of the subject, are required to have approved each and every one of the subjects comprising the same, so that, otherwise, not the overall rating will be finalized. In the latter case, ie if the student has suspended one of the materials that make up the subject, you must re-testing of assessment for that matter, to overcome it, keeping scores on tests evaluation of other stuff that had already been approved. This reserve of qualifications obtained in different subjects expires after exhausting the teaching period to which the student had done right for tuition. Thus, if the student does not obtain at least the passing grade in all subjects, and the period corresponding to the registration made in the course teaching is exhausted, you must re-take completely the process of teaching all and each of the materials and resubmitted to the evaluation processes of each and every one of them. Registrations of honor (MH) will be awarded to students who have achieved the highest scores. When deemed necessary by all teachers of different subjects, you may be called a specific test for this purpose between students selected by their better grades.

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

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

The course is it structured in 30 sessions of teaching large groups of 1 hour and 32 teaching sessions to small groups of 1 hour.

In addition, it will have 10 hours of curricular external Practices

Also teaching the subject should include 66 hours of classroom instruction no.

The content of theoretical teaching sessions will be supported by the literature previously recommended.

In the current circumstances, many of these sessions may be virtualized: This non-classroom teaching may be carried out, both by the students and by the teachers, depending on the circumstances that may arise.

### 4.2. Learning tasks

The program that the student is offered to help you achieve the expected results includes the following activities.

The subject of Otorhinolaryngology:

- Lecture (15 hours).
- Laboratory Practice (8 hours)
- Troubleshooting and cases (8 hours).
- Curricular external practices (5 hours).
- Tutorials (2 hours).
- Study (33 hours).

The subject of Ophthalmology:

- Master Class (15 hours).
- Troubleshooting and cases (17 hours).
- Clinical practices (5 hours).
- Tutorials (2 hours)
- Study (32 hours).

### 4.3. Syllabus

OPHTHALMOLOGY SUBJECT:

Master classes (15 hours):

- Class 1: Eyelids: abnormalities, inflammation and tumours.
- Class 2: Pathology of the lacrimal apparatus
- Class 3: Conjunctiva: Inflammations and tumours.
- Class 4: Cornea: Inflammations, ulcers. Pathology of the sclera.
- Class 5: Ametropia, optical correction and refractive surgery.
- Class 6: Pathology of the crystalline lens and presbyopia.
- Class 7: Glaucoma: clinical forms, diagnosis and treatment.
- Class 8: Pathology of the uvea: uveitis. Uveo-retinal tumours.
- Class 9: Diabetic and sclerohypertensive retinopathy.
- Class 10: Age-related macular degeneration. Other maculopathies
- Class 11: Vitreo-retinal pathology. Retinal detachment.
- Class 12: Orbital pathology.
- Class 13: Visual and pupillary pathways. Pathology of the optic nerve.
- Class 14: Strabismus. Paediatric Ophthalmology.
- Class 15: Ocular traumatology anterior segment and posterior segment.

Problem solving and case studies (17 hours):

- Topic 1: Emergencies / red eye. Clinical cases and simulator
- Topic 2: Decreased VA and fundus. Clinical cases
- Topic 3: Ophthalmology examination.
- Topic 4: Epidemiology / Quality of life / Pharmacology.
- Topic 5: Preparation of the ECOE in ophthalmology. Resolution of clinical cases.

External curricular practicals (5 hours).

- Practical 1: Systematic ophthalmological anamnesis. Clinical history in ophthalmology.
- Practical 2: External examination and visual acuity.
- Practical 3: Slit-lamp examination.
- Practical 4: Direct ophthalmoscopy.
- Practical 5: Attendance in the operating theatre

In this sense, all students who carry out practical activities in which personal data or patient medical records are handled are obliged to keep them confidential.

Tutorials (2 hours): The tutorials will be personal and face-to-face, requesting a date and time with the chosen teacher, and will take place during teaching/career working hours (8am to 3pm). Its main objective is to achieve an adequate academic orientation of the student. At the beginning of the academic year, students will be distributed among the available teaching staff in accordance with the teaching load.

Study (32 hours): This is the student's autonomous work dedicated to the study of the theoretical programme and the preparation of seminars and workshops before and after the course.

OTORHINOLARYNGOLOGY SUBJECT:

Lectures (15 hours):

- Topic 1: Nasal ventilatory insufficiency: nasal septal deviation. Hypertrophic rhinopathy.
- Topic 2: Respiratory infection: its physiopathology. Respiratory tract infection: rhinitis and laryngitis.
- Topic 3: Chronic inflammation of the respiratory tract: respiratory hyperreactivity. Naso-sinus polyposis.
- Topic 4: Chronic inflammation of the airways: chronic laryngopathy. Pseudo-tumoral processes of the larynx.
- Topic 5: Infection of the respiratory cavities: sinusitis and otitis.

- Topic 6: Chronic inflammation of the respiratory cavities: serous otitis.
- Topic 7: Chronic inflammation of the respiratory cavities: chronic suppurative otitis media.
- Topic 8: Other pathological processes of the ear: some diseases of the external ear.
- Topic 9: Digestive tract infection: pathophysiology. Acute infection of the pharynx and tonsils.
- Topic 10: Chronic digestive infection: chronic infection of the tonsils.
- Topic 11: Chronic inflammation of the pharynx. Obstructive sleep apnoea syndrome.
- Topic 12: Some neuro-muscular disorders in Otorhinolaryngology.
- Topic 13: Malignant neoplasms in Otorhinolaryngology.
- Topic 14: Vertigo: some physiopathological models.
- Topic 15: Hearing loss in adults: some pathophysiological models.

Problem solving and case studies (16 hours):

- 1: Epistaxis.
- 2: Naso-facial trauma.
- 3: Tracheotomy and tracheostomy.
- 4: Examination of vestibular function: assessment of spontaneous manifestations of the posterior labyrinth.
- 5: Acummetry.
- 6: Audiometry.
- 7: Impedance testing.
- 8: Palliative treatment of deafness.

Clinical practicals (5 hours):

- Practical 1: Generalities. Clinical history in Otorhinolaryngology. Illumination in Otorhinolaryngology.
- Practical 2: Clinical examination of the nose and sinuses: normal and pathological aspects.
- Practical 3: Clinical examination of the pharynx and larynx: normal and pathological aspects.
- Practical 4: Examination of the ear: normal and pathological aspects.
- Practical 5: Examination of the neck: normal and pathological aspects.

In this sense, all students who carry out practical activities in which personal data or the clinical history of patients are handled are obliged to keep them confidential.

Tutorials (2 hours): The tutorials will be personal and face-to-face, requesting a date and time with the chosen teacher, and will take place during teaching/assistance working hours (from 11 a.m. to 2 p.m.).

Non-attendance teaching (33 hours): This is the student's autonomous work dedicated to the study of the theoretical programme and the preparation of seminars and workshops before and after the course.

In both Ophthalmology and Otolaryngology, a great deal of teaching weight is given to the Digital Teaching Ring, which has been organised to complement face-to-face teaching.

It consists of: General information on the subject with an expression of the Programme, Objectives and Evaluation Criteria. Documents for preparing the Seminars, Workshops and Practical. These documents will allow their evaluation during these teaching activities. Elaboration and presentation of an individual tutored work Library of Podcasts: with clinical and surgical procedures Practical clinical cases that complement the theoretical teaching. The questionnaire of possible exam questions to facilitate the student's preparation.

#### 4.4. Course planning and calendar

Schedule sessions and presentation of works

- Lectures: 1 lecture/school group during the appropriate period, in each subject.
- Teaching small groups: 30 hours, approximately, in each subject, spread throughout the school period appropriate to the number of students and the objectives of the sessions subgroups.
- Classroom Teaching: 2,70 ECTS (67.5 hours). This type of teaching will be distributed so that the teaching of large groups will be a 45% (1.22 ECTS, i.e. 30.4 hours) and small group teaching, another 45% (1.22 ECTS, is mean 30.4 hours)
- Out of classroom teaching: 55% will involve training activities with 3.30 ECTS (82,5 hours)
- All this activities may be virtual, depending on the population-health circumstances
- The key dates of this matter will be organized according to the academic calendar of the Center.

<https://medicina.unizar.es/tercer-curso#horario5>

#### **4.5. Bibliography and recommended resources**

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=26770>