

Degree Course in Medicine and Surgery

Teaching: Specialist Disciplines
SSD: MED/28, MED/30, MED/31
Head Professor: **Roberta Lione**

Module: Oral Diseases
SSD: MED/28
Number of CFU: 2

Professor: **Roberta Lione** robertalione@yahoo.it

Module: Visual Apparatus Diseases
SSD: MED/30
Number of CFU: 2

Professors: **Fenicia Vito** vito.fen@gmail.com

Module: Otolaryngology
SSD: MED/31
Numero of CFU: 2

Professor: **Mario Rigante** mrigante@gmail.com

PREREQUISITES:

There are no prerequisites for Oral Diseases, Visual Apparatus Diseases and Otorinolaryngology.

For the Oral Diseases course, however, skills and notions of the regional anatomy of the head and neck, the histology and physiology of the sensory organs, Pharmacology, General Pathology and Clinical Semeiotic must also be known to understand the pathologies of Odontostomatology relevance.

For the Visual Apparatus Diseases course, The course has no prerequisites. Knowledge of the general features of human eye Anatomy and Physiology is preferred but not mandatory.

For the Otolaryngology course, the basic notions of the regional anatomy of the head and neck, the histology and physiology of the sensory organs are mandatory, and the elements of oncology and microbiology must also be known in order to understand the pathologies of otolaryngological relevance.

LEARNING OBJECTIVES:

The integrated course of Specialist Disciplines provides elements of the diagnosis and therapy of head and neck pathologies frequently encountered in the clinical practice of general medicine. The

course aims at providing useful elements of prevention, diagnosis in order to establish a correct multidisciplinary integration with the specialist.

The training objectives are the understanding of the pathophysiological and etiopathological mechanisms of Oral, ENT and Visual diseases, starting from the anatomical, physiological and etiological topics, to outline the correct diagnostic and therapeutic pathways useful in general practice and in the interaction with specialists. The students will also be able to recognize and treat emergencies in all this specialist disciplines.

LEARNING OUTCOMES:

Knowledge and understanding

The integrated course aims to facilitate the acquisition of knowledge of pathophysiology, diagnostic criteria and principles of treatment of the main head and neck pathologies with attention to the aspects of clinical manifestations and to the most common symptomatological presentation in the clinical practice of general medicine.

The student should know and understand the etiopathogenesis of oro-facial pathologies more frequently encountered. To know prevention strategies, to elaborate a correct diagnosis of those diseases. The student must be able to know and analyze the diagnostic examinations applied on the discipline.

The student should demonstrate the comprehension of all the general concepts of the ocular anatomy and the visual mechanism and recognize the characteristics and the pathophysiologic mechanisms of the different ophthalmic disorders and visual defects, their diagnostic flow-chart and their therapeutic management.

Applying knowledge and understanding

Students need to acquire knowledge and skills at clinical-practice level. They will have to be able to make a diagnosis and demonstrate to know and understand the diagnostic examinations annexed.

Communication skills :

They also must be able to use a proper scientific language coherent with the topic of discussion. The learners must be able to explain in an organized and consistent manner the main topics of the course

Making judgements:

Students will have to be able to independently analyze and process clinical data, to identify the fundamental role of proper theoretical knowledge of the subject in the clinical practice.

Learning skills :

Students will have to develop research and learning skills through textbooks, e-learning and interactive lessons in which they will be actively involved, as well as Identify the possible use of the

acknowledged skills in the future career.

Finally, students will be encouraged to acquire the basic skills of ENT physical examination, through practical exercises with the aid of tools used in the specialist field (eg. otoscopy, endoscopy and audiological and vestibular examination).

COURSE SYLLABUS

Oral Diseases

- Definitions of Odontostomatology
- Odontostomatology branches (parodontology, orthodontics, pediatric dentistry, gnathology, prosthodontics, endodontics, conservative dentistry, oral surgery)
- Anatomy of the oral cavity
 - The teeth
 - Dental formulae
 - Deciduous and permanent teeth
 - Anatomy and functions of the teeth
 - Anatomy and functions of supporting structures
- Dentition
 - Occlusion
 - Malocclusions
- Dental caries and complications (pulpopathies and periapical periodontitis, abscesses and phlegmons)
- Gingivitis e Parodontopathies
- First clinical examination (how, where, when and why)
 - Anamnesis (patient's medical history)
 - Clinical Chart
- Diagnostic Imaging:
 - Orthopantomography
 - Cephalogram
 - Periapical x-ray
 - CBCT
- Dental anomalies
 - Dental inclusions (canines, third molars)
 - Dental agenesis
 - Supernumerary teeth
 - Ankylosis
- Obstructive Sleep Apnea (OSA) in adult and pediatric patients

Visual Apparatus Diseases

- Elements of anatomy and physiology
 - Fibrous tunics: Sclera - Cornea
 - Vascular tunics: Choroid - Ciliary body - Iris
 - Nerve tunics: Retina
 - Crystalline lens and vitreous
 - Anterior chamber, posterior chamber, aqueous humor

Optic Nerve and Optic Pathways
Eyelids and Conjunctiva
Lacrimal system: Gland and Lacrimal Tracts
Extrinsic Ocular Muscles
Orbit

- Pathophysiological optics
 - The eye from an optical point of view
 - Elements of optics, prisms and lenses
 - Vision defects (myopia, hyperopia, astigmatism, presbyopia)
 - Visual acuity measurement (charts, decimals, diopters, retinoscopy (schiascopy), refractometer)
- Pathology and Clinic
 - Eyelid diseases (chalazion, hordeolum, ectropion, entropion, ptosis)
 - Diseases of the lacrimal drainage system (occlusion, dacryocystitis)
 - Diseases of the conjunctiva (conjunctivitis, pinguecula, pterygium)
 - Diseases of the cornea (keratitis, corneal ulcers, keratoconus)
 - Diseases of the sclera (scleritis)
 - Diseases of the lens (cataracts)
 - Diseases of the vitreous
 - Diseases of the uvea (uveitis, tumors)
 - Diseases of the retina (angiomatosis, diabetic retinopathy, Hypertensive retinopathy, venous and arterial occlusions, inherited retinal degeneration, age-related macular degenerations, retinal detachment, retinoblastoma.
 - Neuro-ophthalmology (papilledema, optic neuritis, chiasmatic and retrochiasmatic syndrome).
 - Glaucoma (humor aqueous circulation, tonometry, visual field, optic nerve alterations)
 - Concomitant and paralytic strabismus (amblyopia, esotropia, exotropia)
- Semeiotics and instrumental examinations
 - Physical examination (biomicroscopy, ophthalmoscopy)
 - Corneal evaluation (ophthalmometry, topography, endothelial microsc.)
 - Glaucoma and optical pathways (perimetry, ERG, VEP)
 - Color sense tests (Ishihara plates, Farnsworth test)
 - Retina imaging (Fluorescein angiography + ICGA, OCT, Ultrasound)

Otolaryngology

The subjects covered in the course will be related to diseases of the upper aerodigestive tract of cervico-cephalic oncology and audiology and in more detail the lessons will be aimed at explaining and discussing the following topics:

- Pathologies of the nose and paranasal sinuses (epistaxis, non-specific and allergic vasomotor rhinitis, acute and chronic rhinosinusitis with polyps and without, sinusal and facial tumors): etiopathogenesis, signs and symptoms, diagnosis and therapy
- Diseases of the oral cavity, nasopharynx, or hypopharynx of an inflammatory, infectious nature and related complications: etiopathogenetic, clinical-diagnostic and therapeutic framework
- Neoplastic diseases of the oral cavity, of the oro-hypopharynx and of the nasopharynx: general principles of classification, staging, diagnosis and therapy.
- Pathologies of the larynx (malformative, traumatic, dysfunctional, motor, inflammatory,

- infectious): etiopathogenetic, clinical-diagnostic and therapeutic flow chart with particular reference to differential diagnosis.
- Tumor of the larynx: etiopathogenetic, clinical-diagnostic, classification, staging and therapy aspects
 - Acute dyspnea: diagnosis and principles of medical and surgical therapy
 - Inflammatory and neoplastic pathologies of the salivary glands: diagnosis and therapy
 - Neck swelling and lymph node levels: semeiology, diagnosis and treatment
 - Dysphagia: etiopathogenetic classification, diagnosis and therapy
 - Dysgeusias and dysosmias: etiopathogenesis, diagnosis and treatment
 - Paralysis of the 7th pair of cranial nerves: anatomy, etiopathogenesis, clinical setting, diagnosis and treatment
 - Headache and craniofacial pain syndromes: diagnosis and treatment
 - Otolaryngology and Audiology:
 - Transmissive, mixed and sensorineural hearing loss: causes, pathophysiology, diagnostic approach, medical and surgical therapy, otofunctional examinations
 - Middle ear diseases (inflammatory pathology and complications, cholesteatoma, otosclerosis): clinical pictures, diagnosis and therapy.
 - External ear diseases: clinical pictures, diagnosis and therapy.
 - Inner ear diseases: clinical pictures, diagnosis (including technique and indications of the audiometric examination) and therapy.
 - Diseases of the vestibular apparatus (vestibular decompensation, vestibular syndromes): clinical pictures, definition, differential diagnosis and therapy
 - Tinnitus: physiopathology, local and systemic causes, principles of therapy
 - Diseases of the eighth cranial nerve and acoustic pathways and therapeutic options
 - Head and neck emergencies: supervision, management and treatment.

COURSE STRUCTURE

The course is divided into lectures for a total of 20 hours of Oral Diseases, 20 hours Otolaryngology, 20 hours Visual Apparatus Disease.

The lectures will take place using educational tools such as computer presentations organized in powerpoint files with explanatory diagrams, illustrations and images to describe the clinical pictures and the anatomical and pathophysiological conditions.

Films and animations will be used to integrate the processes described in class.

Attendance is mandatory.

COURSE GRADE DETERMINATION

The final evaluation will be carried out through an oral exam using 30/30. Through the oral exam, students must be able to demonstrate their preparation by discussing the topics of the course, to think about issues related to the specific disciplines demonstrating that they have acquired the ability to express themselves with an appropriate scientific language.

OPTIONAL ACTIVITIES

For Oral Diseases and Otolaryngology courses, practical session will be provided in order to allow the student to acquire the skills of clinical and instrumental evaluation, with the aid of video material and with practical execution (to be confirmed) during hands on session (physical examination of the head and neck, instrumental examinations, clinical cases and surgical cases).

Optional activities are not included in the Visual Apparatus Diseases course. However, student reception would be available during the provided office hours.

READING MATERIALS

Oral Diseases

- L. Fonzi: "Anatomia funzionale e clinica dello splancnocranio"
- M. Chiapasco: "Manuale Illustrato di Chirurgia Orale"
- F. Gombos, R. Serpico: "Clinica odontoiatrica e stomatologica. Testo-atlante a colori di patologia e medicina orale per medici ed odontoiatri"

Visual Apparatus Diseases

- Handouts. (for a quick review)
- Suggested textbooks (not mandatory):

The Wills Eye Manual - Office and Emergency Room Diagnosis and Treatment of Eye Disease

Kanski Clinical Ophthalmology ,Elsevier. (to go more into detail)

Otolaryngology

- Handbook of Otolaryngology – Head and neck Surgery – Second edition - Bradley Goldstein, David Goldenberg – Thieme Medical Publishers Inc
- Otorhinolaryngology, Head and Neck Surgery - M. Anniko, M. Bernal-Sprekelsen, V. Bonkowsky, P. Bradley, S. Iurato – Springer-Verlag
- Basic Otolaringology A Step-by-Step Learning Guide – Second edition – Probst, Grevers, Iro - Thieme Medical Publishers Inc