UNICAMILLUS

MSc in Medicine and Surgery

Integrated teaching: **Specialist Disciplines**
Code: MEDS/16 (già MED/28), MEDS/17A, MEDS/18A
Module convenor: **Mariacristina Parravano** e-mail: mariacristina.parravano@unicamillus.org
Number of ECTS credits: 6

Module: Oral Diseases
Code: MEDS-16/A (ex MED/28)
Professor: **Roberta Lione** (1 CFU) e-mail: roberta.lione@unicamillus.org
Professor: **Marco Clementini** (1 CFU) e-mail: marco.clementini@unicamillus.org
Number CFU: 2

Module: Eye Diseases
Code: MEDS/17A (ex MED/30)
Professor: **Mariacristina Parravano** (1 CFU) e-mail: mariacristina.parravano@unicamillus.org
Professor: **Vincenzo Parisi** (1 CFU) e-mail: vincenzo.parisi@unicamillus.org
Number CFU: 2

Module: Otolaryngology
Code: MEDS/18A **(**già MED/31)
Professor: **Massimo Ralli** e-mail: massimo.ralli@unicamillus.org
Number CFU: 2

PREREQUISITES:

There are no prerequisites for Oral Diseases, Visual System Diseases and Otorynolaryngology.
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 System 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. The Otorhinolaryngology part aims, beyond the study of the individual systems, to give a guide for a clinical approach to the patient, the possibility of deepening increasingly current topics in relation to the new data acquired from research on physio-pathological mechanisms, on the formulation of innovative drugs, advanced surgical techniques and the use of recent rehabilitation tools and methods.

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 theorical 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).

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COURSE SYLLABUS

Oral Diseases

- Definitions of Odontostomatology
- Odontostomatology branches (parodontology, orthodontics, pediatric dentistry, gnatology, prosthodontics, endodontics, conservative dentistry, oral surgery)
- Anatomy of the oral cavity
- The teeth
- Dental formule
- 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
- Correlations between periodontitis and diabetes
- Oral mucosal lesions (traumatic, inflammatory, infectious, autoimmune, precancerous, and traumatic)
- 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 System Diseases

- Elements of anatomy and physiology
  Fibrous tunics: Sclera - Cornea
  Vascular tunics: Choroid - Ciliary body - Iris
  Nerve tunics: Retina
  Optic Nerve and Optic Pathways
  Anterior chamber, posterior chamber, aqueous humor
  Crystalline lens, vitreous
  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 (cataract)
  Diseases of the vitreous
  Diseases of the uvea (uveitis, tumors)
  Diseases of the retina (retinal vascular diseases, retino-choroidal diseases, eredo-dystrophies, vitreo-retinal pathologies

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 microscopy
- Glaucoma and optical pathways (perimetry, ERG, VEP)
- Color sense tests (Ishihara plates, Farnsworth test)
- Retina imaging (Fluorescein angiography + ICGA, OCT, OCT-Angiography, Ultrasound)

Otolaryngology

EAR

- Notes on acoustic physics
- Embryology, Anatomy-physiology of hearing
- External, middle, internal ear
- Subjective audiometry (audiometric examination)
- objective (Otoacoustic emissions, ABR)
- Hearing loss: diagnosis, prognosis, medical, prosthetic, surgical and rehabilitation therapy
- Hearing loss of genetic, transmissive, sensorineural origin
- Tinnitus
- Infant audiological screening
- Hearing aids
- Cochlear implant
- External ear infections, secretory, Acute Otitis Media
- Chronic otitis
- Otosclerosis
- Meniere's disease
- Acoustic neuroma

- Facial nerve paralysis
- Notes on ear surgery
- Otological emergencies
- Objective and subjective dizziness
- Benign paroxysmal positioning vertigo (VPBP)
- Vestibular examination
- Vestibular evoked myogenic potentials (VEMPs)

NOSE and SINUSPARANASALS

- Anatomy and physiology of the nose and paranasal sinuses
- Medical history and physical examination
- Malformations of the nose and paranasal sinuses
- Acute, allergic, vasomotor, chronic rhinitis
- Epistaxis
- Nose trauma
- Acute and chronic sinusitis
- Instrumental investigations and imaging techniques

SALIVARY GLANDS

- Anatomy and Physiology: Parotid, Submandibular, Sublingual
- Sialadenitis, Chronic sialadenitis, Sialolithiasis, Tumors
- Clinic, Diagnostics and Therapy

PHARYNX

- Anatomy and Physiology of the Pharynx
- Pharyngeal semiotics, subjective symptoms, physical examination
- Acute catarrhal tonsillitis
- Streptococcal tonsillitis
- Tonsillar, peritonsillar, retropharyngeal abscess
- Chronic tonsillitis
- Oncological pathology of the oropharynx and hypopharynx
- Surgical therapy

NASOPHARYNX

- Medical history and physical examination
- Malformations
- Nasopharyngitis
- Acute and chronic adenoiditis
- Tumors of the nasopharynx

LARYNX

- Topographic and microscopic anatomy of the Larynx
- Physiology of the Larynx
- Medical history and physical examination

- Acute laryngitis
- Dysphonia
- dysfunctional laryngopathies
- Edema of the larynx
- Precancerous lesions and tumors
- Microlaryngoscopy
- Tracheotomy

TEACHING METHODS

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.

METHODS OF LEARNING ASSESSMENT

The final evaluation will be carried out through a written exam, a multiple-choice test and eventually an oral examination, using 30/30. Through the written, students must be able to demonstrate their preparation about the topics of the course and about issues related to the specific disciplines demonstrating that they have acquired the ability. For every correct answer, 1 point will be assigned. No penalties are considered for a wrong answer.

Hence, the whole examination will be evaluated as it follows:

➢For score less than 18 points, the exam will be considered not passed.
➢For score comprised between 18 and 23, the exam will be considered passed, but the students are not admitted to the oral examination.
➢For score between 24 and 30, the exam will be considered passed and the students can voluntarily apply for the oral examination with the full commission to increase their final vote.

OPTIONAL ACTIVITIES

For Oral Diseases, 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. Optional activities are not included in the Visual System Diseases and Otolaryngology course. However, student reception would be available during the provided office hours.

RECOMMENDED TEXTS AND BIBLIOGRAPHY

Oral Diseases

- L. Fonzi: “Anatomia funzionale e clinica dello splancnocranio”
- P. Gallenzi, R. Patini: “Principi di Clinica Odontostomatologica”

Eye 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

- Organi di Senso Manuale per l'approccio integrato alla patologia testa-collo - A. Polimeni et al -EDRA 2019
- Handbook of Otolaryngology – Head and Neck Surgery – Second edition - Bradley Goldstein, David Goldenberg – Thieme Medical Publishers Inc 2017