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FACULTY OF MEDICINE NO. 2

STUDY PROGRAM 0912.1 MEDICINE

DEPARTMENT OF OTORHINOLARYNGOLOGY

at the meeting of the Commission for Quality Assurance and Evaluation of the Curriculum in Medicine Minutes No. 1 of 21 03. 21 Chairman PhD., associate professor. Pădure Andrei	at the Council meeting of the Faculty of Medicine nr.2 Minutes No. of 3.05.25 Dean of Faculty dr. of med., associate professor Beţiu Mircea
APPRO	OVED
approved at the meeting of the	chair
Minutes No. 7	of 29.01.2025
Head of chair PhD, associate pure Vetricean Sergiu	Thesan

SYLLABUS

DISCIPLINE OTORHINOLARINGOLOGY

Integrated studies

Tipe of course: Compulsory

Curriculum developed by the team of authors:

Vetricean Sergiu, PhD, associate profesor Danilov Lucian, PhD, associate professor Ababii Polina, dr.of.med., associate professor Cabac Vasile, dr.of.med., associate professor Diacova Svetlana, dr.of med., associate professor Chiaburu Chiose, dr.of.med., assistent of professor



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I. INTRODUCTION

- Otolaryngology is the specialty that deals with congenital, traumatic, inflammatory, and tumorous pathologies affecting the ear, temporal bone, nose, paranasal sinuses, oral cavity, pharynx, larynx, trachea, esophagus, as well as the adjacent structures. It also involves the investigation and medical, rehabilitative, and surgical treatment of conditions related to the acoustic-vestibular apparatus, the senses of taste and smell, disorders and impairments of cranial nerves, as well as hearing and sound production deficiencies, which are of great importance in human communication. Alongside neurosurgeons, ophthalmologists, and maxillofacial surgeons, otolaryngologists treat conditions related to the rhinobase, infratemporal fossa, otobase, and orbit. Together with thoracic surgeons, they handle pathologies of the trachea, esophagus, and areas adjacent to the thoracic isthmus. In summary, otolaryngology includes the study of the functions and pathologies of the ear, nose, paranasal sinuses, oral cavity, pharynx, larynx, trachea, and esophagus, as well as the regions adjacent to these organs and cavities. The specialty also deals with communication problems caused by hearing and speech disorders. Important branches of the specialty also include: audiology, otoneurosurgery, phoniatrics, and neurology related to cranial nerve pathology. Knowledge in immunology, allergology, oncology, as well as plastic and reconstructive surgery of the cervicofacial regions is also required.
- **Mission of the curriculum** in professional training is consolidation of fundamental knowledge related to the pathology of the ENT organs and its practical implementation; understanding the evolution, diagnosis, timely treatment, and prophylaxis of ENT organ pathology, development of clinical reasoning and medical synthesis defining elements in the training of any physician.
- Languages of instruction for the discipline: Romanian, Russian, English, French;
- **Beneficiaries:** 5th-year students, Faculty of Medicine I and II.

II. MANAGEMENT OF THE DISCIPLINE

Code of discipline		S.10.O.085	
Name of the discipline Otorhinolaryngology			
Person(s) in charge of the discipline		Vetricean Serghei, PdD, associate professor, Head of Department	
Year	V	Semesters	10
Total number of hours, including:			90
Lectures 20 Pr		Practical/laboratory hours	20
Seminars 20 Self-training		30	
Form of assessment E Number o		Number of credits	3



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III. TRAINING AIMS WITHIN THE DISCIPLINE

At the end of the discipline study the student will be able to:

• To understand, to know, to identify

Diseases of the Nose and Paranasal Sinuses

- Recap of the anatomy and physiology of the rhin sinus system
- Pathophysiological syndromes of the nasal cavity and paranasal sinuses
- Inflammatory and dermatological conditions of the nasal pyramid and nasal vestibule (nasal furuncle, eczema, rhinophyma, etc.)
- Acute and chronic non-specific rhinitis
- Rhinitis during infectious-contagious and chronic diseases (syphilis, tuberculosis, scleroma)
- Vasomotor rhinitis, nasal polyposis
- Acute and chronic sinusitis
- Nasal-sinus trauma
- Foreign bodies in the nasal cavities
- Epistaxis (nosebleeds)
- Benign and malignant tumors of the nose

Diseases of the Pharynx

- Anatomy and physiology of the pharynx
- Malformations of the pharynx
- Acute specific and non-specific tonsillitis
- Suppurative complications of tonsillitis
- Tonsillitis in the context of hematological syndromes
- Acute and chronic adenoiditis, their complications
- Chronic tonsillitis
- Acute and chronic pharyngitis
- Benign and malignant tumors of the pharynx
- Foreign bodies of the pharynx
- Trauma of the Pharynx**

Diseases of the Larynx

- Anatomy and physiology of the larynx
- Malformations of the larynx
- Foreign bodies of the larynx
- Laryngeal trauma
- Acute specific and non-specific laryngitis
- Chronic specific and non-specific laryngitis
- Acute and chronic laryngeal stenosis
- Benign and malignant tumors of the larynx

Tracheobronchial and Esophageal Pathology

- Foreign bodies in the tracheobronchial tree and esophagus
- Esophageal burns
- Post-caustic esophageal stenosis

Diseases of the Ear

- Anatomy and physiology of the acoustic-vestibular apparatus
- Malformations of the ear
- Auricular trauma
- External otitis, otomycosis, auricular furuncle
- Acute suppurative and non-suppurative middle ear infections
- Chronic suppurative and non-suppurative middle ear infections



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- Complications of acute and chronic middle ear infections
- Hypoacusis (conductive, mixed), otosclerosis
- Perceptive hypoacusis
- Meniere's syndrome

• to perform, to be able, to conduct:

- Inspection and palpation of the craniofacial and cervical regions
- Buccopharyngoscopy
- Nasal endoscopy and anterior and posterior rhinoscopy
- Functional examination, permeability of the nasal cavities, examination of olfactory function
- Technique for anterior and posterior nasal packing in epistaxis
- Hypopharyngoscopy and laryngoscopy
- Tracheotomy technique
- Endoscopy technique
- Otoscopy in adults and children
- Examination of auditory function
- Presentation of tuning fork tests and audiometry technique
- Presentation of audiograms with different types of hearing loss
- Interpretation of radiological images, computerized tomography, and magnetic resonance imaging of the otolaryngological organs.

• At the integration level:

- Assessing the importance of the otorhinolaryngology field in the context of medicine
- Understanding the development of otorhinolaryngology in Europe and the Republic of Moldova
- Comprehending the interrelations between otorhinolaryngology and other fundamental disciplines

IV. PROVISIONAL TERMS AND CONDITIONS

The specialty of otolaryngology encompasses the study of the functions and pathologies of the ear, nose, paranasal sinuses, oral cavity, pharynx, larynx, trachea, and esophagus, as well as the regions adjacent to these organs and cavities. The functions of these organs are of great importance in human communication, nutrition, respiration, etc. Regardless of their chosen specialty, the future doctor must be familiar with the anatomy, physiology, and pathophysiology of the ENT organs and provide first aid in emergency situations. The future doctor must refer the patient correctly and promptly to an ENT consultation in case of suspected otolaryngological conditions.

For a good understanding of the ENT discipline, in-depth knowledge is required in the fields of Topographical Anatomy, Physiology and Pathophysiology, Allergology and Immunology, Medical Imaging, Neurology, and Pharmacology, all of which are acquired during university studies.



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V. THEMES AND ESTIMATE ALLOCATION OF HOURS

Lectures, practical hours/laboratory hours/seminars and self-training

No.		Number of hours			
d/o	THEME		Practical	Self-	
1.	The purpose and tasks of the otolaryngology discipline in medicine. The significance of the ENT organs in human life and activity. The history of the development of ENT in Europe and Moldova. General concepts about examination methods in ENT. Objective and functional examination in ENT. The role of anamnesis in establishing the diagnosis. Paraclinical examination methods. Endoscopic and microscopic investigations in ENT. Setting up the ENT office and the necessary instruments. Concepts of clinical anatomy and physiology of the auditory and vestibular apparatus.		4	3	
2.	Otological symptoms. Developmental anomalies of the external ear. Inflammatory pathologies of the external ear. Otomycosis. Acute otitis media. Etiopathogenesis, clinical features, and treatment. Chronic suppurative otitis media. Classification. Clinical presentation. Disease progression. Treatment. Prophylaxis. Labyrinthitis.	2	4	3	
3.	Complications of middle ear infections: mastoiditis (atypical forms), extra- and subdural abscess, cerebral and cerebellar abscess, otogenic sepsis, otogenic meningitis. Diagnosis and treatment.	2	4	3	
4.	Non-suppurative ear conditions: Acute and chronic tubotympanic catarrh. Seromucous otitis. Adhesive otitis. Otosclerosis. Meniere's disease. Perceptive hearing loss. Sudden idiopathic hearing loss. Tinnitus and vertigo. Medical expertise.	2	4	3	
5.	General information about the anatomical structure and functions of the nose and paranasal sinuses. The anatomical and functional interrelations of the nose and paranasal sinuses with other organs. The peculiarities of innervation and vascularization. Semiology of nasosinusal conditions. Anomalies, congenital malformations, and deformations of the nose. Choanal atresia. Acute and chronic rhinitis. Hematoma and abscess of the nasal septum. Nasal furuncle. Epistaxis (nosebleed) and trauma of the nasal pyramid.	2	4	3	
6.	Acute and chronic sinusitis: classification, clinical presentation, diagnosis, and treatment. The contemporary concept of rhin sinusal surgery. Rinosinusogenic complications: intracranial, ocular, auricular, pharyngeal, laryngeal, and broncho-pulmonary. Clinical presentation, positive and differential diagnosis, treatment, prophylaxis. Benign and malignant rinosinus tumors.	2	4	3	
7.	Elements of pharyngeal anatomy and physiology. Examination methods. Waldeyer's lymphoid ring and its significance in maintaining homeostasis, general and local immune status. Pharyngeal symptoms.	2	4	3	
8.	Acute and chronic adenoiditis. Juvenile nasopharyngeal angiofibroma. Hypertrophy of the palatine tonsils. Indications for tonsillectomy. Acute and chronic pharyngitis. Pharyngeal mycosis. Tonsillitis (Angina). Classification. Clinical presentation and disease progression. Principles of treatment and prophylaxis. Complications of tonsillitis. Chronic tonsillitis. Classification. Clinical presentation. Principles of treatment	2	4	3	



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No.		Nur	nber of ho	urs
d/o	THEME		Practical	Self-
			hours	training
	and prophylaxis.			
9.	Concepts of embryology and clinical anatomy of the larynx, trachea, bronchi, and esophagus. The vital, social, and professional importance of the larynx. Musical voice. Congenital malformations of the larynx. Stridor, diaphragms, and laryngocele. Acute and chronic laryngitis. Chronic specific laryngitis: tuberculosis, syphilis, and scleroma. Mycotic laryngitis. Acute stenosing laryngotracheitis in children.	2	4	3
10.	Laryngeal stenosis. Definition. Classification. Tracheotomy and prolonged intubation. Esophageal burns. Foreign bodies in the upper and lower respiratory tracts. Benign and malignant tumors. Laryngeal cancer. International classification of malignant tumors. Methods of treatment for laryngeal cancer.**		4	3
	Total	20	40	30

VI. PRACTICAL SKILLS

Essential Mandatory Practical Procedures are:

- I. General Clinical ENT Examination
- Inspection of the craniofacial region
- Palpation of the cervical region and lymph nodes
- Examination of the nasal septum
- Palpation of the paranasal sinuses (frontal, maxillary, ethmoid, sphenoid)
- Transillumination of the sinuses (frontal and maxillary)
- Mirror test for nasal airway patency
- Observation of clinical signs of rhinitis, sinusitis, nasal septum deviation, etc.
- II. Examination of the Oral Cavity and Pharynx
- Buccopharyngoscopy using a tongue depressor
- Examination of the tonsils (assessment of hypertrophy and inflammation)
- Evaluation of soft palate symmetry (the "ah" test)
- Identification of oral lesions (ulcers, candidiasis, aphthae, etc.)

III. Nasal Examination

- Anterior rhinoscopy using a nasal speculum
- Posterior rhinoscopy using an ENT mirror
- Identification of secretions, nasal polyps, hypertrophied turbinates
- Basic smell test with common substances (simple olfactometry)

IV. Ear and Hearing Examination

- Otoscopy in adults
- Otoscopy in children
- Rinne test
- Weber test
- Schwabach test
- Ear irrigation (simulated or assisted)
- Interpretation of a basic audiogram
- Identification of types of hearing loss (conductive, sensorineural, mixed)
- V. Examination of the Larynx and Hypopharynx



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- Indirect laryngoscopy using a laryngeal mirror
- Hypopharyngoscopy (with mirror or indirect observation)
- Recognition of common pathologies: laryngitis, vocal cord nodules, vocal cord paralysis

VI. Emergency ENT Procedures (Simulated)

- Anterior nasal packing technique (epistaxis)
- Posterior nasal packing technique
- Simulated tracheotomy (on manikin or model)
- Heimlich maneuver (upper airway obstruction)
- Airway opening technique: head tilt-chin lift maneuver

VII. Additional / Observational Procedures

- Pharyngeal/nasal swab collection (simulated or assisted)
- Evaluation of a patient with tonsillitis / otitis / sinusitis
- Monitoring a post-operative ENT patient
- Observation of an endoscopic procedure (nasal or laryngeal fibroscopy)
- Participation in a professional audiometry session in a specialized lab
- Introduction to tympanogram interpretation

VII. OBJECTIVES AND CONTENT UNITS

Objectives	Content Units
Chapter 1. Otology. Clinical an auditory and vestibular system	natomy, physiology, examination methods, and pathology of the s.
To define	The syndrome in topic
To understand	The details of the syndrome, including pathophysiology,
	semiology, modern investigation methods, and the significance of
	the syndrome for nosological diagnosis;
	- Diseases that manifest through the syndrome in question;
	- Incidence, modern aspects of etiology, and pathogenesis of the
	diseases discussed in each topic;
	- The clinical and paraclinical (laboratory and instrumental)
	diagnosis of each nosological entity with proper justification;
• To demionstrate the	
ability	To perform the clinical and paraclinical (laboratory and
	instrumental) diagnosis of each nosological entity with
	justification; To perform differential diagnosis and provide justification:
	To perform differential diagnosis and provide justification;To elaborate the full clinical diagnosis (underlying disease,
	complications, and comorbidities);
	- To create a paraclinical examination plan with justification;
	- To develop a personalized treatment plan (for the underlying
	disease and comorbidities) with justification
	The knowledge and practical skills acquired;
To applay	- The diagnostic, differential diagnostic, and treatment algorithms
	in potential emergency situations;
	- The knowledge related to completing medical documentation



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Objectives	Content Units
	(observation sheet, stage, transfer and discharge epicrisis, extract from the observation sheet, statistical sheet);
Integrate knowledge	in the fields of fundamental, preclinical, and clinical disciplines.
Chapter 2. Rhinology. Clinical the nose and paranasal sinuses	anatomy, physiology, examination methods, and pathology of
To define	The syndrome in topic
To understand	The details of the syndrome, including pathophysiology,
	semiology, modern investigation methods, and the significance of the syndrome for nosological diagnosis; - Diseases that manifest through the syndrome in question; - Incidence, modern aspects of etiology, and pathogenesis of the diseases discussed in each topic;
	- The clinical and paraclinical (laboratory and instrumental) diagnosis of each nosological entity with proper justification;
• To demionstrate the ability	To perform the clinical and paraclinical (laboratory and instrumental) diagnosis of each nosological entity with justification; - To perform differential diagnosis and provide justification; - To elaborate the full clinical diagnosis (underlying disease,
• To applay	complications, and comorbidities); - To create a paraclinical examination plan with justification; - To develop a personalized treatment plan (for the underlying disease and comorbidities) with justification The knowledge and practical skills acquired; - The diagnostic, differential diagnostic, and treatment algorithms in potential emergency situations; - The knowledge related to completing medical documentation (observation sheet, stage, transfer and discharge epicrisis, extract from the observation sheet, statistical sheet);
Integrate knowledge	in the fields of fundamental, preclinical, and clinical disciplines.
Chapter 3. Buccopharyngology pathology of the pharynx and o	Clinical anatomy, physiology, examination methods, and oral cavity
To define	The syndrome in topic
To understand	The details of the syndrome, including pathophysiology, semiology, modern investigation methods, and the significance of the syndrome for nosological diagnosis;
	- Diseases that manifest through the syndrome in question;



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Objectives	Content Units	
	 Incidence, modern aspects of etiology, and pathogenesis of the diseases discussed in each topic; The clinical and paraclinical (laboratory and instrumental) diagnosis of each nosological entity with proper justification; 	
• To demionstrate the ability	To perform the clinical and paraclinical (laboratory and instrumental) diagnosis of each nosological entity with justification; - To perform differential diagnosis and provide justification; - To elaborate the full clinical diagnosis (underlying disease,	
	complications, and comorbidities); - To create a paraclinical examination plan with justification; - To develop a personalized treatment plan (for the underlying disease and comorbidities) with justification The knowledge and practical skills acquired;	
• To applay	 The knowledge and practical skins acquired, The diagnostic, differential diagnostic, and treatment algorithms in potential emergency situations; The knowledge related to completing medical documentation (observation sheet, stage, transfer and discharge epicrisis, extract from the observation sheet, statistical sheet); 	
Integrate knowledge	in the fields of fundamental, preclinical, and clinical disciplines.	
Chapter 4. Laryngology. Clinic of the larynx, trachea, bronchi,	al anatomy, physiology, examination methods, and pathology and esophagus.	
To define	The syndrome in topic	
• To understand	The details of the syndrome, including pathophysiology, semiology, modern investigation methods, and the significance of the syndrome for nosological diagnosis; - Diseases that manifest through the syndrome in question; - Incidence, modern aspects of etiology, and pathogenesis of the diseases discussed in each topic; - The clinical and paraclinical (laboratory and instrumental) diagnosis of each nosological entity with proper justification;	
• To demionstrate the ability	To perform the clinical and paraclinical (laboratory and instrumental) diagnosis of each nosological entity with justification; - To perform differential diagnosis and provide justification; - To elaborate the full clinical diagnosis (underlying disease, complications, and comorbidities); - To create a paraclinical examination plan with justification;	



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	Objectives	Content Units
•	To applay	 To develop a personalized treatment plan (for the underlying disease and comorbidities) with justification The knowledge and practical skills acquired; The diagnostic, differential diagnostic, and treatment algorithms in potential emergency situations; The knowledge related to completing medical documentation (observation sheet, stage, transfer and discharge epicrisis, extract from the observation sheet, statistical sheet);
•	Integrate knowledge	in the fields of fundamental, preclinical, and clinical disciplines.

VIII. PROFESSIONAL (SPECIFIC (SC)) AND TRANSVERSAL (TC) COMPETENCES AND STUDY FINALITIES

✓ Professional competences

CP1. Responsible execution of professional duties by applying the values and standards of professional ethics, as well as the provisions of current legislation.

- Apply the legal and regulatory framework in practical activities.
- Respect ethical and deontological standards.
- Ensure adherence to ethical-deontological norms and be guided by the provisions of the medical ethics code.
- Promote collegial relationships with colleagues.
- Perform independent activities in line with the medical profession oath.
- Understand and respect the rights and technical norms related to sanitary-hygienic and antiepidemic regulations in various socio-medical situations according to current legislation.
- Understand and comply with the provisions of the collective labor agreement, safety protection standards, and health protocols at the workplace.
- Ensure the compliance and correctness of fulfilling service obligations when providing care to the population in public, private, and community healthcare institutions.
- Encourage informed ethical decision-making and respect the patient's decision.
- Be capable of obtaining an adequate clinical history.
- **CP2.** Adequate knowledge of the sciences concerning the structure of the body, physiological functions, and the behavior of the human organism in various physiological and pathological states, as well as the relationships between health status, the physical environment, and the social environment.
- Understand the structures and physiological functions of organs and organ systems in healthy subjects.
- Recognize the physiological and pathological processes of the human being and the psychosocial



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responses of individuals in different health states.

- Know the relevant terminology for the signs and symptoms derived from various pathophysiological states.
- Identify pathophysiological processes and their expression, as well as the risk factors that determine health and disease at different stages of the life cycle.
- Appreciate the relationship between health status and the physical and social environment of the human being.
- Understand the possible evolution and complications arising from major pathological processes.
- **CP3.** Resolving clinical situations by developing a diagnostic, treatment, and rehabilitation plan in various pathological situations and selecting appropriate therapeutic procedures for them, including providing emergency medical care.
- Evaluate the health status of patients through thorough medical history and clinical examination.
- Apply critical and systematic thinking skills to solve problems and make prompt decisions in various situations.
- Assess and identify issues beforehand, facilitating the finding of the best solution for risky situations, achieving objectives, improving outcomes, and ensuring the quality of work performed.
- Perform various practical procedures during the clinical examination necessary for establishing the diagnosis.
- Establish the diagnosis of the most common conditions.
- Discuss treatment options, advantages, disadvantages, and risks with patients and help them make decisions regarding their treatment.
- Prescribe, review, and monitor relevant therapeutic interventions for clinical practice, including therapeutic and prophylactic indications.
- React promptly and independently in various situations that allow for saving lives and improving the quality of life.
- Apply first aid techniques in emergency cases.
- Perform resuscitation and first aid maneuvers.

CP4. Promoting a healthy lifestyle, applying prevention and self-care measures.

- Apply health promotion and prevention measures.
- Identify opportunities to maintain health and prevent disease.
- Identify opportunities to promote lifestyle changes and other actions that will positively improve health.
- Conduct health education activities in accordance with medical practice guidelines and protocols.
- Maintain personal health and be aware of personal responsibility as a doctor in promoting a healthy approach to life based on evidence.
- Discuss with patients the factors that may influence their health.
- Participate in and support individuals or communities in health promotion activities, screening programs, and provide information about their risks and benefits.
- Carry out preventive activities at the individual level according to the provisions of clinical protocols.
- Promote and implement measures for personal health promotion and stress management at the workplace.
- Systematically perform medical exams to maintain personal health.
- **CP5.** Interdisciplinary integration of the physician's activity in a team with the efficient use of all resources.
- Communicate, interact, and work efficiently within the team and with inter-professional staff, individuals, families, and groups.



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- Interact effectively with other professionals involved in patient care, demonstrating respect for colleagues and other healthcare professionals.
- Develop positive collaborative relationships with team members involved in patient care, as well as the ability to adapt to change.
- Provide adequate and timely support to service users in navigating the healthcare system, including services, access to care, and available resources.
- Use language skills, information technologies, and communication competencies efficiently.

CP6. Conducting scientific research in the field of health and other branches of science.

- Plan, organize, and execute scientific research in the field.
- Identify sources of information, select materials and research methods, conduct experiments, process statistical results, and formulate conclusions and recommendations.
- Develop and deliver speeches and presentations at scientific events, demonstrating personal attitude, coherence in presentation, and scientific accuracy.
- Participate in discussions and debates at scientific events.

√ Transversal competences (TC)

TC1. Autonomy and responsibility in activity. The application of rigorous and efficient work rules, the manifestation of a responsible attitude towards the performance of professional tasks with the application of the values and norms of professional ethics, as well as the provisions of the legislation in force. Promoting logical reasoning, practical applicability, evaluation and self-evaluation in decision-making.

Study finalities:

- To understand the evolutionary particularities of ORL pathology.
- To know the methodology of differential diagnosis of diseases of the ORL organs.
- To understand the role of clinical, laboratory, and instrumental investigations in differential diagnosis.
- To be competent in prescribing personalized treatment for ORL patients.
- To be capable of deducing the interrelations between otorhinolaryngology and other medical disciplines (e.g., pulmonology, oncology, hematology, etc.), performing interdisciplinary clinical synthesis.
- To be able to daily acquire the new advancements in internal medicine.

IX. STUDENT'S SELF-TRAINING

N o.	Expected product	Implementation strategies	Assessment criteria	Implementa tion terms
1.	Working with Information Sources	Identification of Sources: -original research articles, clinical trials, case reports, and observational studies that provide firsthand data on specific topicssources that interpret or analyze primary data, such as review articles, meta-analyses, and guidelinestextbooks, databases, and encyclopedias that summarize information.	This concept involves a structured approach to obtaining, analyzing, and using information effectively in the medical field.	During thr module



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		Evaluate different sources and synthesize findings to make informed clinical decisions. Use evidence-based guidelines to inform patient treatment plans and improve clinical outcomes. Working with information sources is crucial in both academic and clinical settings, allowing healthcare professionals to make well-informed, evidence-based decisions.		
2.	Working with Online Materials.	Here's how students and professionals can approach this: Identifying Reliable Online Sources. Use trusted, scientifically verified platforms, such as: Databases & Journals: PubMed, ScienceDirect, SpringerLink, JAMA, The Lancet, NEJM Medical Guidelines & Protocols. E-books and online textbooks (e.g., Gray's Anatomy, Cummings Otolaryngology) Videos and lectures (YouTube medical channels, university platforms) Interactive clinical cases and simulations Virtual anatomy tools Use open-access materials or those covered by your institution's license Respect patient confidentiality when accessing or sharing case studies. Be aware of fake medical news or misinformation.	In medical education and practice, effectively using online resources is essential for staying informed, improving skills, and delivering high-quality care. Ability to stay current with global medical trends. Enhanced visual and interactive understanding (especially in ORL anatomy and procedures)	Throughout the module
3.	Application of Different Learning Techniques	In medical education—especially in complex disciplines such as Otorhinolaryngology (ENT) - it is essential to apply various learning techniques that enhance critical thinking, memory retention, clinical skills, and the ability to synthesize information. 1. Active Learning. Ask questions while studying (e.g., "What does this symptom mean?" "Why does this complication occur?") Participate actively in lectures, seminars, and clinical discussions 2. Case-Based Learning. Analyze real or	Using a variety of learning techniques: - Improves academic performance - Develops clinical reasoning - Enhances long-term retention - Prepares students for real-life medical situations	Throughout the module



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		simulated clinical scenarios. Ask yourself: "What diagnosis do I suspect?", "What investigations are needed?", "What is the appropriate treatment?" 3. Collaborative Learning. Form study groups to discuss topics, questions, or clinical cases. Explaining concepts to peers strengthens understanding 4.Multisensory Learning. Combine reading, writing, listening (medical podcasts), and watching (educational videos). Engaging multiple senses improves memorization and integration of knowledge. 5.Self-Assessment. Solve multiple-choice		
		questions and open-ended cases from the topics covered. Interpret audiograms, CT scans, or ENT endoscopic images. 6. Interleaved Learning. Avoid studying the same topic for hours; switch between related subjects (e.g., sinusitis ↔ tonsillitis ↔ otitis). Enhances differentiation and deeper understanding of concepts.		
4.	The activity of examining patients during clinical practice and on-call duties.	Patient examination, accurate assessment of the data obtained through direct clinical examination, laboratory tests, and instrumental investigations; mastering the diagnostic approach, differential diagnosis, and individualized treatment planning.	Accurate formulation and clinical reasoning behind the diagnosis, diagnostic workup, and therapeutic plan for the individual patient.	Daily, during the entire module.
5.	Preparation and delivery of academic presentations and reports, with active engagement in feedback and discussion.	Selection of topics and deadlines for presentations/reports, accompanied by peer review and evaluation by faculty members.	Evaluation criteria include: Workload, Depth of understanding of the presentation/report topic, Level of argumentation, Quality of conclusions, Elements of creativity, Development of personal attitude, Graphical presentation, Presentation style and delivery.	



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X. METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING-ASSESSMENT

Teaching and learning methods used:

The discipline of Otorhinolaryngology will be taught in a traditional manner: lectures, practical work, seminars, individual work, and clinical internship. The theoretical course will be delivered by the course holders. During the practical sessions, students will study the specifics of examining ENT organs: inspection and palpation of the craniofacial and cervical regions, buccopharyngoscopy, anterior and posterior rhinoscopy, functional examination, nasal cavity patency, examination of the olfactory function, technique of anterior and posterior nasal packing in epistaxis, hypopharyngoscopy and laryngoscopy, tracheotomy technique, endoscopy technique, otoscopy in adults and children, examination of auditory function, presentation of tuning fork tests and audiometry technique, presentations of audiograms showing different types of hearing loss.

Teaching strategies, technologies applied (specific to the discipline)

The proposed teaching strategies for lectures are:

- Introductory
- Current (up-to-date)
- Synthesis
- Debates
- For practical lessons, the proposed teaching strategies are:
- Case study
- Group work
- Individual work
- Clinical observation

To acquire knowledge in mastering the ENT course, it is necessary to:

- Attend lectures and practical lessons systematically. Independently delve into the essence of the information.
- Take notes and highlight the most important points.
- Ask questions where things are unclear, in order to clarify key concepts.
- Work in groups to process the taught material for better understanding and synthesis of the acquired information.
- Manage time rationally to acquire the necessary knowledge.

Assessment Methods (including Final grade Calculation

Current: All students will be evaluated daily and periodically for their academic activities. The evaluation process is valid, objective, and reliable, and addresses cognitive, psychomotor, and affective domains.

Both formative (ongoing) and summative (final) evaluations are conducted, separately for theoretical and clinical practical components.

Ongoing Evaluation: In the ENT discipline, five ongoing assessments (referred to as totalizations) are scheduled:



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- 1. Totalization 1: Clinical anatomy and physiology of the auditory and vestibular systems. Ear disorders.
- 2. Totalization 2: Anatomical structure and functions of the nose and paranasal sinuses. Rhinonasal pathology.
- 3. Totalization 3: Embryology, clinical anatomy, physiology, and pathology of the pharynx and oral cavity.
- 4. Totalization 4: Embryology, clinical anatomy, physiology, and pathology of the larynx, trachea, bronchi, and esophagus.
- 5. Totalization 5: Individual work.

The average score of the five totalizations represents 30% (0.3) of the final grade.

Final Evaluation:

Students are not eligible to take the final exam in the ENT discipline if:

- Their annual average is below grade 5, or
- They have not made up their absences from practical classes.

The final exam in Otorhinolaryngology consists of:

- Demonstration of practical skills, and
- A written multiple-choice test (SIMU format used by USMF "Nicolae Testemiţanu").

The exam topics are approved by the department and communicated to students at least one month prior to the exam session.

The SIMU test consists of 50 multiple-choice questions, covering all course topics.

Students have 60 minutes to complete the test.

All components of the evaluation are graded on a scale from 0 to 10.

The final mark is calculated based on positive grades of the annual average, calculated at the end of the course - 30%, practical skills -20% and from test-control - 50%. The annual average mark and final examination marks (computer test) will be expressed in numbers according to the mark grading scale (see the table below), while the final mark will be expressed by two decimal places, which will be recorded in the student's record card (gradebook).

Absence on examination without good reason is recorded as "absent" and is equivalent to 0 (zero). The student has the right to have two re-examinations in the failed exam

Method of mark rounding at different assessment stages

Intermediate marks scale (annual average, marks	National Assessment	ECTS Equivalent
from the examination stages)	System	
1,00-3,00	2	F
3,01-4,99	4 .	FX
5,00	5	
5,01-5,50	5,5	${f E}$
5,51-6,0	6	



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6,01-6,50	6,5	D
6,51-7,00	7	
7,01-7,50	7,5	_ С
7,51-8,00	8	
8,01-8,50	8,5	В
8,51-9,00	9	
9,01-9,50	9,5	A
9,51-10,0	10	

XI. RECOMMENDED LITERATURE:

A. Compulsory:

- 1. Ballenger's Otorhinolaryngology Head and Neck Surgery https://orl.usmf.md/sites/default/files/inline-files/Ballehger20ENT.pdf
- 2. M. Anniko, M. Bernal-Sprekelsen, V. Bonkowsky, P. Bradley, S. Iurato. Otorhinolaryngology, Head and Neck Surgery. European Manual of Medicine. https://orl.usmf.md/wp-content/blogs.dir/124/files/sites/124/2018/05/ Otorhinolaryngology-Head-and-Neck-Surgery-M.-Anniko.pdf
- 3. Mohan Bansal Diseases of Ear, Nose and Throat Head and Neck Surgery. https://ums.usmf.md/messages/attachment/2089700_1826314_1572020_diseases-of-ear-nose-and-throat-1e-2013-pdfunitedvrg.pdf

B. Optional:

- 4. https://repub.eur.nl/pub/7657/BorgsteinENTbook.pdf
- 5.

https://www.entuk.org/_userfiles/pages/files/groups/ear_nose_and_throat_the_offici_sfo_uk _compressed.pdf