

Ministry of Health of Ukraine
Poltava State Medical University

Department of Otorhinolaryngology with Ophthalmology

SYLLABUS
Otorhinolaryngology
compulsory educational discipline

level of higher education	the second (master's) level of higher education
field of knowledge	22 «Healthcare»
specialty	221 «Dentistry»
educational qualification	master of medicine
professional qualification	dental specialist
educational and professional program	"Dentistry"
form of education	full-time
course(s) and semester(s) of study of academic discipline	4th course, VII semester

INFORMATION ABOUT TEACHERS WHO TEACH EDUCATIONAL DISCIPLINE

Surname, first name, patronymic of the teacher(s), academic degree, academic title	Bezega Mykhailo Ivanovich	Ph.D.	Head of the Department
	Bezshapochnyi Serhii Borisovych	MD, Professor	Professor
	Gasyuk Yurii Anatoliyovych	MD, Professor	Professor
	Loburets Valery Vasylovich	Ph.D.	Associate professor
	Podovzhnyi Oleksandr Hryhorovych	Ph.D.	Teacher
	Sonnik Nataliya Bohdanivna	Ph.D.	Associate professor
	Zachepyllo Svitlana Victorivna	Ph.D.	Associate professor
	Loburets Andriy Valeriyovych	Ph.D.	Teacher
Profile of the teacher (teachers)	https://otorhin-ophthalm.pdmu.edu.ua/team		
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MAIN CHARACTERISTICS OF THE EDUCATIONAL DISCIPLINE

«Otorhinolaryngology»

The scope of the discipline «Otorhinolaryngology»

Number of credits / hours – **3,0/90**, of which:

Lectures (hours) - **6**

Practical classes (hours) - **30**

Independent work (hours) - **54**

Type of control: final module control (FMC)

Policy of educational discipline

The policy of the academic discipline is determined by the system of requirements that scientific and practical workers impose on applicants for higher education in the study of the clinical discipline "Otorhinolaryngology", is based on the principles of academic integrity and is built taking into account the norms of the legislation of Ukraine, the Statute, provisions of the PSMU and other regulatory documents.

Learning outcomes obtained through non-formal and/or informal education are recognized in the formal education system in the manner prescribed by law.

The academic discipline is based on the conscious and conscientious performance of duties by higher education students/ applicants for higher education, compliance with the general rules and norms of behavior accepted in society.

Normative documents regulating the organization of the educational process at the department and at the university can be found at the link (<https://www.pdmu.edu.ua/n-process/viddil-monitoryngu-osvity/informaciyi-materiali-n-process-vimo-ek9k>).

Applicants for higher education are obliged to fully master the knowledge, skills, practical skills and competences in the discipline "Otorhinolaryngology", adhering to the principles of academic integrity - the Code of Academic Integrity of the Poltava State Medical University.

(https://www.pdmu.edu.ua/storage/n_process_vimo/docs_links/acuIqVmfy9EKlnqGTD eNGxcZYY09NpWN3T2KFdps.pdf).

Applicants for higher education must adhere to the "Rules of internal procedure for students of PSMU". It is mandatory to systematically attend all types of training classes (except for good reasons), which are held according to the schedule according to the schedule of the educational process in accordance with the work training plans and the program of the discipline. Students of higher education must come to classes on time, according to the schedule, lateness to classes is not allowed.

The language of the educational process is the state language, and for international applicants for higher education, English or Russian is additionally available at their choice (determined according to their study contract).

During the educational process at the department, higher education students must be present in changeable medical clothing (gown and cap) and changeable shoes, clothing items must be clean and ironed.

During practical classes and lectures, students are prohibited from leaving the classroom without the permission of the teacher; using textbooks, manuals, notes, mobile phones or other electronic means that can transmit materials or provide information without teacher's permission; engaging in unauthorized activities, distracting other students and interfering with the teacher; committing immoral acts that degrade human dignity, use profanity; committing illegal acts; performing any actions that may create conditions dangerous to the health and/or life of others.

Working out of unsatisfactory grades at the Department of Otorhinolaryngology and Ophthalmology begins 2 weeks before the end of the semester and is carried out only when the applicant for higher education has an average score of the current module performance in the discipline less than 3.0 before reaching the minimum score for admission to the FMC. Obtaining positive grades on the topics of content modular controls and defense of medical history is a prerequisite for admission to FMC.

In order to comply with the rules of academic integrity while studying at the Department of Otorhinolaryngology and Ophthalmology, **applicants for higher education must:**

- independently perform educational tasks, tasks of current and final control of learning results;
- refer to sources of information in case of borrowing ideas, statements, information;
- provide reliable information about the results of one's own educational and scientific activities;
- comply with copyright legislation;
- provide reliable information about the results of one's own educational (scientific, creative) activities, used research methods and sources of information.

During their stay at the department, higher education seekers must comply with the following requirements:

- adhere to a business style of clothing;
- maintain order in classes;
- be careful with the property (furniture, equipment) located in the educational premises of the department;
- not to take things and equipment out of the classrooms and premises of the department without the teacher's permission
- behave with dignity, tact, maintain patience and self-control.

When organizing the educational process at the Department of Otorhinolaryngology and Ophthalmology, teachers and act in accordance with the following normative documents:

Regulations on the organization of the educational process at Poltava State Medical University: https://www.pdmu.edu.ua/storage/department-npr/docs_links/0nrGNrEzksWWytpXV8j05INcg9wbyVjkYx9FrbEY.pdf

Rules of internal procedure of applicants for higher education at Poltava State Medical University: https://www.pdmu.edu.ua/storage/department-npr/docs_links/OaN2nwysLPFAUDRvuDPvFSpzM1j9E9CwQQkgr93b.pdf

Regulations on the organization and methodology of evaluating the educational activity of higher education applicants at Poltava State Medical University: https://www.pdmu.edu.ua/storage/department-npr/docs_links/tswROM7KUS0XT7aEsz3ZJ1peVh33PidlmTM3uuyo.pdf

Regulations on the organization of independent work of applicants for higher education at Poltava State Medical University: https://www.pdmu.edu.ua/storage/department-npr/docs_links/BGUZVLhZvFmIMvpYzHnEFfb9IIwhTrEjOaaFdpTd.pdf

Regulations on reworking missed classes and unsatisfactory grades by applicants for higher education at Poltava State Medical University: https://www.pdmu.edu.ua/storage/department-npr/docs_links/BGUZVLhZvFmIMvpYzHnEFfb9IIwhTrEjOaaFdpTd.pdf

npr/docs_links/d2v3WhcBOWnuedYRoBKRe7k1xnl4KtbB2r2NR2CG.pdf

If you do not agree with the results of the final control, read the "Regulations on contesting the results of the final control of the knowledge of applicants for higher education":

<https://www.pdmu.edu.ua/storage/department->

npr/docs_links/DDgFa7zhzJAcNHnKamWyKPDd1P2msJNfrEAv36Bu.pdf

Description of the educational discipline (abstract)

«Otorhinolaryngology» is a branch of clinical medicine that studies the anatomy, physiology, and pathology of the ear, nose, nasal cavity, pharynx, larynx, and adjacent organs. Along with this, otorhinolaryngology considers methods of diagnosis, treatment, and prevention of diseases of the ENT organs. Association of otorhinolaryngological pathology and selection its development into an independent discipline began in the middle of the 19th century and is associated with the anatomical and topographical unity of the ENT organs, their physiological and functional connection. The formation and rapid development of otorhinolaryngology as an independent medical specialty was facilitated by the development of endoscopic methods of research of ENT organs. The need and importance of teaching otorhinolaryngology is due to the wide spread of diseases of the ENT organs and their complications. Currently, otorhinolaryngology is a branch of health care, the knowledge of which is mandatory for a graduate of a higher medical educational institution. Implementation of modern diagnostic methods in practice provides not only effective treatment and prevention of otorhinolaryngological nosologies, but also prevents the development of severe chronic diseases from other organs and systems of the macroorganism. During the study of otorhinolaryngology, students of higher education acquire theoretical knowledge and acquire practical skills on issues of etiology, pathogenesis, diagnosis, treatment and prevention of diseases of the ENT organs, which are aimed at improving the quality of life, preserving health and working capacity of the human.

The subject of study of the educational discipline "Otorhinolaryngology" is anatomy, physiology of ENT organs, etiological factors and pathogenetic mechanisms of diseases of ENT organs, clinical course, methods of diagnosis, treatment and prevention of otorhinolaryngological pathology, assistance in emergency situations in otorhinolaryngology, organization of otorhinolaryngological care in Ukraine.

Prerequisites and postrequisites of the educational discipline (interdisciplinary connections)

Prerequisites. The study of the discipline "Otorhinolaryngology" is based on the knowledge obtained by applicants for higher education from the following disciplines: pathomorphology, pharmacology, surgery (including oncology and neurosurgery), as well as general medical training (ophthalmology, neurology, including neurostomatology; dermatology, venereology; psychiatry, narcology; medical psychology; physical rehabilitation, sports medicine, endocrinology).

Postrequisites. The study of the discipline "Otorhinolaryngology" lays the foundations for further study by applicants for higher education of such disciplines as therapeutic and surgical dentistry, orthopedic dentistry, orthodontics, children's therapeutic dentistry and emergency medical care.

The purpose and tasks of the educational discipline

The purpose of teaching the educational discipline "Otorhinolaryngology" is to to acquiring knowledge of the anatomy and physiology of the ENT organs, etiological factors and pathogenetic mechanisms of diseases of the ENT organs, clinical signs, methods of diagnosis, treatment and prevention of otorhinolaryngological pathology, mastering by students of higher education the necessary skills and abilities that correspond to the ultimate goals of studying the educational discipline.

The main tasks of studying the discipline "Otorhinolaryngology" are to:

- analyze the anamnesis and clinical data of the patient;
- interpret the results of laboratory, instrumental and additional research methods;
- establish a preliminary, clinical, final diagnosis;
- determine the management tactics of patients with diseases of the ENT organs and their complications;
- carry out the necessary medical manipulations;
- provision of emergency care in otorhinolaryngology.

Competencies and learning outcomes in accordance with the educational and professional program, the formation of which is facilitated by the educational discipline (integral, general, special)

In accordance with the requirements of the EPP "Dentistry", the discipline ensures that students of higher education acquire the following competencies:

Integral competence:

The ability to solve complex tasks and problems in the field of health care in the specialty "Dentistry" in professional activity or in the process of learning, which involves conducting scientific research and/or implementing innovations and is characterized by the uncertainty of conditions and requirements.

General competencies:

1. Ability to abstract thinking, analysis and synthesis.
2. Knowledge and understanding of the subject area and understanding of professional activity.
3. Ability to apply knowledge in practical activities.
4. Ability to communicate in the national language both orally and in writing.
5. Ability to communicate in English. Ability to use international Greek-Latin terms, abbreviations and clichés in professional oral and written communication.
6. Skills in using information and communication technologies.
7. Ability to search, process and analyze information from various sources.

8. Ability to adapt and act in a new situation.
9. Ability to identify, pose and solve problems.
10. Ability to be critical and self-critical.
11. Ability to work in a team.
12. Ability to act socially responsibly and consciously.
13. Ability to be aware of one's rights and responsibilities as a member of society, to be aware of the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen of Ukraine.

Special (professional, subject) competencies:

1. Ability to collect medical information about the patient and analyze clinical data.
2. Ability to interpret the results of laboratory and instrumental research.
3. Ability to diagnose: determine preliminary, clinical, final, concomitant diagnoses, emergency conditions.
4. Ability to plan and carry out measures for the prevention of diseases of organs and tissues of the oral cavity and maxillofacial area.
5. Ability to design the process of providing medical care: to determine the approaches, plan, types and principles of treatment of diseases of the organs and tissues of the oral cavity and maxillofacial area.
6. Ability to determine the rational mode of work, rest and nutrition of patients in the treatment of diseases of the organs and tissues of the oral cavity and maxillofacial area.
7. Ability to determine the management tactics of patients with diseases of the organs and tissues of the oral cavity and maxillofacial region with accompanying somatic diseases.
8. Ability to perform medical and dental manipulations.
9. Ability to treat the main diseases of the organs and tissues of the oral cavity and maxillofacial area.
10. Ability to organize and conduct a screening examination in dentistry.
11. Ability to assess the impact of the environment on the health of the population (individual, family, population).
12. Ability to keep standard medical documentation.
13. Processing of state, social and medical information.
14. Ability to organize and carry out rehabilitation measures and care for patients with diseases of the oral cavity and maxillofacial area.
15. Ability to legally ensure one's own professional activity.

Program learning outcomes, the formation of which is facilitated by the study of the educational discipline "Otorhinolaryngology".

1. To identify leading clinical symptoms and syndromes (according to list 1); according to generally accepted methods, using preliminary data of the medical history, data of the patient's examination, knowledge about the person, his organs and systems, establish a probable nosological or syndrome preliminary clinical diagnosis of a dental disease (according to list 2).

2. To collect information about the patient's general condition, to evaluate the patient's psychomotor and physical development, the condition of the maxillofacial organs according to the results of laboratory and instrumental studies, to evaluate information about the diagnosis (according to list 5).

3. To prescribe and analyze additional (mandatory and additional) examination methods (laboratory, X-ray, functional and/or instrumental) for patients with diseases of the organs and tissues of the oral cavity and maxillofacial area for differential diagnosis of diseases (according to list 2).

4. To establish a diagnosis of an emergency under any circumstances (at home, on the street, in a medical institution), in conditions of emergency, martial law, lack of information and limited time (according to list 4).

5. To determine the tactics of managing a dental patient with somatic pathology (according to list 3) by making a reasoned decision according to existing algorithms and standard schemes.

6. To determine the tactics of providing emergency medical care, using the recommended algorithms, under any circumstances based on the diagnosis of an emergency condition in a limited time (according to list 4).

7. To perform the analysis and evaluation of state, social and medical information using standard approaches and computer information technologies.

8. To assess the impact of the environment on the state of health of the population in the conditions of a medical institution according to standard methods.

9. To form goals and determine the structure of the individual's activity based on the results of the analysis of certain social and personal needs.

10. To be aware of and be guided in one's activities by civil rights, freedoms and duties, to raise the general educational cultural level.

11. To comply with the requirements of ethics, bioethics and deontology in professional activities.

12. To organize the necessary level of individual safety (own and the persons cared for) in case of typical dangerous situations in the individual field of activity.

13. To perform medical manipulations on the basis of a preliminary and/or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions.

14. To perform manipulations for the provision of emergency medical care according to standard schemes under any circumstances based on the diagnosis of an emergency (according to list 4) in a limited time (according to lists 6, 7).

Learning outcomes of the educational discipline:

after completing the study of the academic discipline "Otorhinolaryngology", students must

Know:

- topographical and clinical anatomy of the upper respiratory tract and ear in the age aspect;
- physiology of ENT organs; mutual connection of functional systems of the body and the level of their regulation;
- clinical and functional research methods in otolaryngology;
- etiological factors of pathological processes of the upper respiratory tract and ear; peculiarities of their development in the age aspect;
- clinical symptoms, methods of diagnosis and treatment of the main diseases of the nose and paranasal sinuses, external, middle and internal ear, pharynx, larynx, their prevention in the age aspect;
- etiological factors of pathological processes of the upper respiratory tract and ear; peculiarities of their development in the age aspect;
- clinical symptoms, methods of diagnosis and treatment of the main diseases of the nose and paranasal sinuses, external, middle and internal ear, pharynx, larynx, their prevention in the age aspect;
- principles of providing emergency care for urgent ENT pathology;
- principles of preparing patients for surgery and management in the postoperative period;
- means and methods of pain relief during otorhinolaryngological operations;
- peculiarities of diet therapy for ENT diseases;
- operating room equipment, surgical instruments used in various operations on ENT organs;
- basics of examination of temporary and permanent incapacity;
- legal issues of the activity of an otolaryngologist;
- the issue of ENT aid organization in extreme conditions (epidemics, earthquakes, floods);
- requirements of ethics, bioethics and deontology in professional activity;
- principles of sanitary and educational work.

Be able to:

- collect and evaluate anamnesis data;
- perform an endoscopic examination of an otorhinolaryngological patient (front and back rhinoscopy, oropharyngoscopy, indirect laryngoscopy, otoscopy) and assess the patient's condition;
- plan the patient's examination;
- interpret the data of laboratory, instrumental and additional research methods;

- carry out differential diagnosis of the most common diseases of the upper respiratory tract and ear;
- determine the previous clinical diagnosis;
- determine the management tactics of a patient with otorhinolaryngological pathology;
- perform diagnostic and therapeutic manipulations;
- provide emergency medical aid in case of an emergency;
- develop measures to prevent diseases of the upper respiratory tract and ear;
- keep medical documentation;
- comply with the requirements of ethics, bioethics and deontology in professional activities.

Thematic plan of lectures, specifying the basic issues, which are considered at the lecture

Module 1. Otorhinolaryngology

Seq. No	TITLE OF THE TOPIC	Number of hours
1.	Anatomy and physiology of the nose and paranasal sinuses. Diseases of the nose and paranasal sinuses. Rhinogenous intracranial and orbital complications. Clinical anatomy and physiology of the nose and paranasal sinuses. Traumatic injuries of the nose and paranasal sinuses. Nasal hemorrhage. Methods of stopping nosebleeds. Acute and chronic rhinitis. Acute and chronic sinusitis. Principles of functional endoscopic surgery (FESS) in acute and chronic sinusitis. Ways of spread of infection from the nose and paranasal sinuses to the orbit and skull cavity, main clinical symptoms.	2
2	The structure and functions of the lymphadenoid pharyngeal ring. Diseases of the pharynx. Anatomy and physiology of the larynx. Diseases of the larynx. Features of the structure of the tonsils of the lymphadenoid pharyngeal ring and their functions. Definition and classification of acute tonsillitis (angina). Complications of angina. Chronic tonsillitis. The structure and functions of the larynx. Classification, basic principles of diagnosis and treatment of various forms of chronic laryngitis. Definition, causes and classification of laryngostenosis, principles of	2

	emergency care.	
3	Diseases of the external and middle ear. Otogenic intracranial complications. Etiological factors and features of treatment of inflammation of the external ear. Pathogenesis, stages of the clinical course of acute purulent otitis media and features of the course in babies. Complication of acute purulent otitis media. Clinical forms of chronic purulent otitis media. Sanation and hearing improvement surgeries. Ways and stages of the spread of infection from the ear to the skull cavity, the main clinical symptoms.	2
	Total	6

Seminars are not provided by the program

Thematic plan of practical classes by modules and content modules, specifying the basic issues, which are considered at the practical class

Seq. No.	TITLE OF THE TOPIC	Number of hours
1	2	3
	Module 1. Otorhinolaryngology	
<i>Content module 1. Propedeutics of otorhinolaryngology.</i>		
1.	Endoscopic methods of research of ENT organs. Clinical anatomy, physiology and research methods of the nose and paranasal sinuses. <ul style="list-style-type: none"> - Organization of the ENT doctor's workplace; location of the patient, doctor, light source. - The structure of the frontal reflector and headlamp, the rules of its use. - External examination of ENT organs, sequence and technique of endoscopic studies of ENT organs. - Clinical anatomy of the nasal cavity. - Features of the structure of the mucous membrane of the respiratory and olfactory zones of the nasal cavity. - Olfactory analyzer, conductive pathways. - Clinical anatomy of paranasal sinuses, their topography. - Functions of the nose and nasal cavities. - Methods of researching the nasal cavity and paranasal sinuses. 	2
2.	Clinical anatomy, physiology and research methods of the	2

	pharynx, larynx. <ul style="list-style-type: none"> - Topography of the pharynx, larynx. Age and gender characteristics. - Clinical anatomy of the pharynx. - The structure and functions of the lymphadenoid pharyngeal ring. - Pharynx physiology and research methods. - Clinical anatomy of the larynx. - Functional characteristics of the muscles of the larynx. - Physiology of the larynx. - External examination, palpation, indirect and direct laryngoscopy, endovideoscopic examination of the larynx. - Interpretation of the laryngoscopic picture. - Additional research methods of the larynx. 	
3.	Clinical anatomy, physiology and research methods of auditory and vestibular analyzers. <ul style="list-style-type: none"> - Anatomical and topographic features of the external auditory canal. - Features of the skin of the external auditory canal. - Anatomical structures of the middle ear. - Anatomical structure of the tympanic cavity. - Structure and functions of the tympanic membrane. - Anatomical and physiological features of the auditory tube. - Types of mastoid structure, options for pneumatization and their importance for the development of pathological processes. - Methods of studying the structure of the middle ear. - Anatomy of the structures of the inner ear. - Mechanisms of sound-conducting and sound-perceiving systems. - Interpretation of the otoscopic picture. - Testing of hearing by speech. <p>Testing of hearing by means of tuning forks (Rinne, Schwabach, Weber, Gelle tests), purpose of conducting, performance technique and interpretation of results.</p> <ul style="list-style-type: none"> - Audiometry, types, characteristics of the main types of audiometric graphs. - Ewald's laws, V.G. Voyachek's "iron rules". 	2
<i>Content module 2. Clinical otorhinolaryngology.</i>		
4.	Nose diseases. Nasal septum deviation, nasal furuncle, acute and chronic rhinitis.	2

	<ul style="list-style-type: none"> - Acute rhinitis: etiological factors, stages of the clinical course, treatment. - Classification of chronic rhinitis. - Clinical presentation, diagnosis and treatment of various forms chronic rhinitis. - Ozena: etiology, clinical presentation, diagnosis, principles of treatment. - Vasomotor rhinitis. Classification. Principles of conservative and surgical treatment. - Allergic rhinitis: clinic, diagnosis, principles of treatment. 	
5.	<p>Acute and chronic paranasal sinuses diseases. Rhinogenous orbital and intracranial complications.</p> <ul style="list-style-type: none"> - Etiology, pathogenesis, clinical presentation and diagnosis of acute sinusitis. - Features of the course of odontogenous maxillary sinusitis. - Maxillary sinus puncture: indications, performance technique, possible complications. - Classification, clinical symptoms, diagnosis, differential diagnosis of chronic inflammation of the maxillary, frontal, ethmoid and sphenoid sinuses. - Principles of functional endoscopic surgery (FESS) in acute and chronic sinusitis. - Ways of infection penetration from the paranasal sinuses into the skull cavity and orbit. - Clinical symptoms, diagnosis, principles of treatment of rhinogenous orbital and intracranial complications. 	2
6.	<p>Acute diseases of the pharynx. Primary and secondary tonsillitis. Complications of tonsillitis, pharyngeal abscess, pharyngeal diphtheria.</p> <ul style="list-style-type: none"> - Acute pharyngitis: etiology, pathogenesis, clinical picture and principles of treatment. - Classification of tonsillitis. Primary and secondary angina. - Etiology, pathogenesis, clinical presentation, classification, diagnosis of acute primary tonsillitis. - Etiology, pathogenesis, classification, clinical presentation, diagnosis of acute secondary tonsillitis. - Differential diagnosis of various forms of tonsillitis and principles of therapy. - Etiology, pathogenesis, clinical symptoms of angina complications, prevention and principles of treatment. 	2

	- Pharyngeal diphtheria: etiology, epidemiology, clinical forms, diagnostic criteria, treatment and prevention.	
7.	Chronic diseases of the pharynx. Hypertrophy of palatine and pharyngeal tonsils. <ul style="list-style-type: none"> - Classification of chronic tonsillitis. - Clinical symptoms, diagnostic criteria of chronic tonsillitis. - Principles of conservative treatment of chronic tonsillitis. - Surgical treatment of chronic tonsillitis: indications, main types of surgical interventions, complications. - Palatine tonsils hypertrophy: etiology, clinical presentation, treatment, indications for surgery. - Pharyngeal tonsil hypertrophy: etiology, clinical presentation, treatment, indications for surgery. 	2
8.	Acute and chronic diseases of the larynx. <ul style="list-style-type: none"> - Acute laryngitis: etiology, pathogenesis, clinical picture, diagnosis, treatment. - Laryngeal angina: etiology, pathogenesis, clinical picture, diagnosis, treatment. - Etiology, pathogenesis, clinical picture, diagnosis and treatment of acute laryngotracheobronchitis in children. - Classification of chronic laryngitis. - Clinical picture, diagnosis and treatment of various form chronic laryngitis, principles of microsurgical interventions. - Precancerous diseases of the larynx (dyskeratoses — pachydermia, leukoplakia): clinical symptoms, diagnosis and treatment. 	2
9.	Diseases of the external and middle ear. Acute suppurative otitis media. Mastoiditis. Antromastoidotomy. <ul style="list-style-type: none"> - Clinical symptoms, diagnosis and methods of cerumen removal, possible complications. - Clinical symptoms, diagnosis and treatment of furuncle of the external auditory canal. - Clinical symptoms, diagnosis and treatment of otitis externa. - Etiology, clinical course and treatment of malignant otitis externa. - Etiology and pathogenesis of acute suppurative otitis media. - Stages of acute otitis media. - Features of the course of acute otitis media in infants. - Principles of treatment of acute suppurative otitis media. Paracentesis. 	2

	<ul style="list-style-type: none"> - Clinical forms of mastoiditis. Antritis. - Principles of mastoiditis treatment. Anthrotomy, performance technique. 	
10.	<p>Chronic purulent otitis media, labyrinthitis. Sanation and hearing improvement surgeries.</p> <ul style="list-style-type: none"> - Reasons leading to the development of chronic purulent diseases of the middle ear. - Classification of chronic purulent otitis media. - Differential diagnosis of epitympanitis and mesotympanitis. - Cholesteatoma: formation mechanisms, diagnosis, complications. - Principles of conservative treatment of chronic purulent otitis media. - Sanation and hearing improvement operations: indications, principles of performance, complications. 	2
11.	<p>Non-purulent diseases of the ear: catarrh of the middle ear, sensoneural hearing loss, otosclerosis, Meniere's disease.</p> <ul style="list-style-type: none"> - Acute catarrh of the middle ear: clinical presentation, diagnosis, treatment. - Etiology, pathogenesis, clinical presentation of sensoneural hearing loss. - Diagnosis of sensoneural hearing loss. - Principles of treatment and prevention of sensoneural hearing loss. Hearing aids. - Otosclerosis: causes, clinical symptoms, diagnosis. - Surgical treatment of otosclerosis (stapedoplasty): indications, principles of performance. - Meniere's disease: etiology, variants of the clinical course, treatment. 	2
12.	<p>Tumors and infectious granulomas of the ENT organs.</p> <ul style="list-style-type: none"> - Benign tumors of the ENT organs: diagnosis, principles of treatment. - Juvenile angiofibroma of the nasopharynx: clinical picture, diagnosis, principles of treatment. - Malignant tonsillar tumors, principles of diagnosis and treatment. - Principles of early diagnosis of malignant tumors of the upper respiratory tract and ear. - Malignant tumors of the larynx: clinic, diagnosis and principles of treatment of larynx cancer. 	2

	<ul style="list-style-type: none"> - Tuberculosis of the ENT organs: clinical picture, criteria for diagnosis and treatment. - Syphilis of the ENT organs: clinical picture, criteria for diagnosis and treatment. - Scleroma of the upper respiratory tract: etiology, epidemiology, stages of the clinical course, diagnostic criteria, principles of treatment. 	
Content module 3. Emergency conditions in otorhinolaryngology.		
13.	Laryngostenosis. <ul style="list-style-type: none"> - Definition of stenosis, classification, etiological factors. - Stages of the clinical course of laryngeal stenosis. - Basic principles of conservative treatment of laryngostenosis. - Indications for tracheostomy and conicotomy. - Types of tracheostomy, performance technique, complications - Construction of tracheal cannula, its care and tracheostomy care. - Tracheal intubation: indications, performance technique, complications. 	2
14.	Nose traumas, nosebleeds. Foreign bodies of ENT organs. <ul style="list-style-type: none"> - Classification of nasal bone fractures. - Methods of examination of patients with traumas of the nose and paranasal sinuses. - Finger and instrumental nasal bone resection technique. - Classification and causes of nosebleeds. - Local methods of stopping nosebleeds. - The technique of performing anterior and posterior nasal packing. - General prescriptions to a patient with nosebleeds. - Foreign bodies of the upper respiratory tract and ear: principles of diagnosis and removal. 	2
15.	Final module control.	2
	Total	30

INDEPENDENT WORK

Module 1. Otorhinolaryngology

No	TITLE OF THE TOPIC	Number of hours
1.	Preparation for practical classes – theoretical preparation and	14

2. Clinical anatomy and physiology of the nasal cavity. The structure of the walls of the nasal cavity.
3. Features of the structure of the mucous membrane of the nasal cavity. Mucociliary transport as a component of colonization resistance of the nasal cavity.
4. Clinical anatomy of paranasal sinuses. Age features and sinus functions. Research methods.
5. Functions of the nose. Methods of nose research.
6. Clinical anatomy and functions of the pharynx, methods of research of the pharynx.
7. Anatomy and physiology of the lymphadenoid pharyngeal ring. Age characteristics and research methods.
8. The structure of the palatine tonsils and participation in the formation of local and systemic immunity of the human body.
9. Clinical anatomy and topography of the larynx: cartilages, ligaments and muscles.
10. The cavity of the larynx and its floors. Physiology of the larynx. Research methods of the larynx in adults and children.
11. Anatomy of the external ear. Anatomical and physiological features of the external auditory canal in children and adults. Research methods.
12. Anatomical structures of the middle ear, their functional relationship. Research methods.
13. Anatomy of the tympanic cavity, topography of the walls and floors of the tympanic cavity. Chain of auditory ossicles, its components and functional significance.
14. Clinical anatomy and functions of the tympanic membrane. Anatomical and physiological features in babies.
15. Clinical anatomy of the mastoid process. Types of pneumatization of the mastoid process. Age characteristics.
16. Clinical anatomy, physiology of the auditory tube. Peculiarities of its structure in childhood. Methods of studying the patency of the auditory tube.
17. Parts, cavities and fluids of the inner ear, their physiological purpose.
18. The structure of the cochlea and the spiral organ, their physiological purpose.
19. Systems of sound conduction and sound perception (air, bone conduction).
20. Testing of hearing by speech and by means of tuning forks. Tests by Rinne, Weber, Schwabach, Gelle, Bing, Federici. Differential diagnosis of lesions of the sound-conducting and sound-perceiving apparatus.
21. Pure - tone and speech audiometry. Characteristics of the main types of audiometric graphs.
22. The structure of bone and membranous labyrinths. Conductive pathways of the vestibular analyzer.
23. Adequate irritants of the ampullary and otolithic apparatus. Groups of reflexes that occur when the vestibular apparatus is irritated.

24. Regularities of nystagmus (Ewald's laws). Types and characteristics of nystagmus.

Content module 2. Clinical otorhinolaryngology.

25. Nasal septum deviation: clinical picture, diagnosis, methods of surgical correction.

26. Nasal furuncle: etiological factors, clinical picture, diagnosis and treatment.

27. Deformations of the external nose. Rhinoplasty, indications for rhinoplasty, types of rhinoplasty, procedure, complications.

28. Acute rhinitis: etiological factors, stages of the clinical course, treatment, possible complications.

29. Chronic rhinitis: classification, etiological factors, clinical presentation, differential diagnosis, treatment.

30. Vasomotor rhinitis: allergic and neurovegetative forms, clinical presentation, diagnosis and treatment.

31. Acute sinusitis: etiological factors, clinical presentation, diagnosis, differential diagnosis, principles of treatment.

32. The main causes of the development and features of the clinical course of odontogenic sinusitis. Maxillary sinus puncture, performance technique, possible complications.

33. Principles of functional endoscopic surgery (FESS) in acute sinusitis. Advantages of minimally invasive surgical interventions, peculiarities of postoperative rehabilitation.

34. Classification of chronic sinusitis. Clinical symptoms, methods of diagnosis and differential diagnosis. Principles of conservative treatment.

35. Principles of functional endoscopic surgery (FESS) in various forms of chronic sinusitis. Peculiarities of postoperative rehabilitation.

36. Chronic polypous sinusitis: etiological factors, pathogenetic mechanisms, clinical symptoms, diagnosis, complex treatment (modern principles of conservative and operative treatment).

37. Rhinogenic intracranial complications: ways of penetration of infection, types of complications, principles of diagnosis and surgical interventions.

38. Rhinogenic orbital complications: ways of penetration of infection, types of complications, principles of diagnosis and operative treatment.

39. Classification, etiology, pathogenesis, clinical symptoms and diagnosis of acute primary tonsillitis (angina).

40. Classification, etiology, pathogenesis, clinical symptoms and diagnosis of acute secondary tonsillitis (angina).

41. Differential diagnosis of various forms of acute tonsillitis. Principles of therapy and possible complications.

42. Pharyngeal diphtheria: etiology, pathogenesis, clinical picture, criteria for diagnosis and differential diagnosis, treatment and prevention.
43. Chronic tonsillitis: classification, etiological factors, pathogenetic mechanisms, local signs of chronic tonsillitis. Tonsilogenic and metatonsillar complications.
44. Conservative and surgical treatment of chronic tonsillitis. Indications and contraindications for surgical intervention, organ-preserving operations.
45. Adenoid enlargement: etiology, clinical symptoms, conservative and surgical treatment.
46. Palatine tonsils hypertrophy: etiology, pathogenesis, clinical symptoms, diagnosis, indications for surgical intervention.
47. Acute laryngitis: etiology, clinical symptoms, diagnosis and basic principles of treatment.
48. Acute obstructive laryngotracheobronchitis in children: etiology, pathogenesis, clinical symptoms, intensive therapy.
49. Laryngeal diphtheria: etiology, pathogenesis, clinical picture, diagnostic criteria, treatment and prevention.
50. Chronic laryngitis: main forms, etiology, pathogenesis, principles of differential diagnosis.
51. Chronic hyperplastic laryngitis: clinical forms, modern diagnostic methods, conservative treatment and microsurgical endolaryngeal intervention.
52. Precancerous diseases of the larynx (dyskeratosis - pachydermia, leukoplakia): clinical picture, modern methods of diagnosis, treatment.
53. Otitis externa: forms, etiology, clinical signs, diagnosis and treatment. Malignant otitis externa: etiology, features of the clinical course and treatment.
54. Otomycosis: etiological factors, clinical symptoms, methods of modern diagnosis and treatment.
55. Acute suppurative otitis media: etiological factors, ways of penetration of infection into the middle ear, stages of the clinical course, diagnosis and treatment.
56. Features of the course of acute suppurative otitis media in babies. Diagnosis and treatment. Indications for paracentesis, performance technique.
57. Complications of acute suppurative otitis media. Acute mastoiditis, antritis: causes of development, clinical symptoms, diagnosis, treatment. Antromastoidotomy.
58. Atypical forms of mastoiditis: causes of development and main forms.
59. Chronic purulent otitis media: classification, clinical forms, differential diagnosis of epitympanitis and mesotympanitis, main directions of treatment.
60. Chronic purulent epitympanitis. Cholesteatoma, mechanisms of its formation. Clinical symptoms and otoscopic signs, research and treatment methods.
61. Surgical treatment of chronic purulent epitympanitis at the current stage of otiatrics development. Indications for sanation and hearing improvement operations, stages and main principles of performance, complications.

62. Labyrinthitis: classification, etiology, pathogenesis, clinical forms, differential diagnosis and treatment.

63. Acute and chronic sensorineural hearing loss: etiological factors, clinical presentation, diagnosis, modern treatment and prevention.

64. Otosclerosis: pathogenetic mechanisms, clinical presentation, diagnosis, indications for otosclerosis surgery - stapedoplasty, performance technique.

65. Meniere's disease: etiology, pathogenesis, clinical presentation, diagnosis and treatment methods.

66. Classification of tumors of the ENT organs. Principles of diagnosis and treatment of benign tumors of the ENT organs.

67. Malignant tonsillar tumors: clinical symptoms, principles of diagnosis and treatment.

68. Malignant tumors of the larynx: localization, clinical presentation, modern methods of diagnosis and treatment.

69. Principles of early diagnosis of malignant tumors of the upper respiratory tract and ear. Methods of treatment of malignant tumors of the upper respiratory tract and ear: surgical, radiation and chemotherapy. Their significance and therapeutic possibilities.

70. Scleroma of the upper respiratory tract: etiology, epidemiology, stages of the clinical course, diagnostic criteria, differential diagnosis and principles of treatment.

71. Tuberculosis of the upper respiratory tract: clinical presentation, diagnostic criteria, differential diagnosis and basic principles of treatment.

72. Syphilis of the upper respiratory tract: clinical presentation, diagnostic features, differential diagnosis, principles of treatment.

73. Mycoses of the ENT organs: etiological factors, pathogenesis, modern methods of diagnosis and treatment.

Content module 3. Emergency conditions in otorhinolaryngology.

74. Laryngostenosis: definition, classification, causes of development, main symptoms.

75. Stages of laryngostenosis, their clinical characteristics, principles of treatment.

76. Conicotomy and cricoconicotomy: definition, indications, performance technique.

77. Tracheostomy: indications, its types, performance technique, complications. Structure of a tracheal cannula, care for it and a tracheostomy.

78. Nasal bones fractures, classification, clinical picture, diagnostic criteria, treatment tactics.

79. Combined traumas of the nose, paranasal sinuses and face. Methods of primary surgical treatment of wounds, prevention of tetanus.

80. Nosebleed: classification, causes, local means to stop bleeding, principles of general treatment.

81. Foreign bodies of the larynx, trachea, bronchi and esophagus: clinic, diagnosis, removal methods.

The list of practical skills required for the final module control and semester final assessment

1. Be able to use a forehead reflector and headlamp.
2. Perform anterior rhinoscopy and evaluate the results.
3. Perform a posterior rhinoscopy and evaluate the results.
4. Perform oropharyngoscopy and evaluate the results.
5. Conduct an indirect laryngoscopy and evaluate the results.
6. Palpate the larynx and regional lymph nodes, evaluate the results.
7. Carry out otoscopy and evaluate the results.
8. Carry out hearing tests by whisper and by speech, evaluate the results.
9. Perform tuning fork tests (Weber, Schwabach, Rinne, Federici, and Gelle) and evaluate the results.
10. Carry out otoscopy catheterization by Politzer method;
11. Evaluate the main types of tympanograms.
12. Analyze the main types of audiograms.
13. Conduct research on the vestibular analyzer and evaluate the results.
14. Perform diagnostic and therapeutic manipulations:
 - a) cleaning of the external auditory canal and introduction of turunda with medical substances;
 - b) pneumatic massage of the tympanic membrane;
 - c) taking material from the nasal cavity, pharynx and ear for bacterioscopic and bacteriological examination;
 - d) lubrication and irrigation of the mucous membrane of the nasal cavity and pharynx;
 - e) covering and irrigation of the mucous membrane of the nasal cavity and pharynx;
 - f) lavage of palatine tonsil lacunas with disinfectant solution;
 - g) introduction into the nasal passages of gauze turundas with medicines for the purpose of anemization and/or anesthesia of the mucous membrane of the nasal cavity;
 - i) intralaryngeal administration of medical solutions;
 - j) carrying out primary surgical treatment of wounds of ENT organs;
 - k) tracheostomy toilet and care of tracheal cannula;
 - l) remove foreign bodies from the nasal cavity, pharynx, larynx and ears.
15. Evaluate the data of basic laboratory tests (blood, urine), cerebrospinal fluid.

16. Evaluate the results of bacterioscopic, bacteriological and cytological research.

17. Evaluate the data of X-ray, CT, and MRI examination of a patient with pathology of the ENT organs.

Teaching methods

verbal (lecture, explanation, story, conversation, instruction);

visual (observation, illustration, demonstration);

practical (performance of graphic works, carrying out of experiment, practice);

thematic discussions;

case method;

simulation games;

research methods;

presentations;

problematic presentation of the material.

The form of final control of academic performance is FMC

Assessment forms and methods:

The main methods of monitoring the knowledge of applicants for higher education are: observation of educational activities of applicants for higher education, oral survey, written control, test control, practical check, as well as methods of self-control and self-evaluation.

Input control at the beginning of studying a discipline is carried out in the form of solving test tasks to assess the initial level of knowledge of applicants for higher education.

The current control is carried out during the study of a certain topic to determine the quality of assimilation of a certain volume of educational material, the level of formation of a separate skill or ability through an oral survey, solving situational tasks, written control of knowledge and skills with the help of written works (written answers to questions, solving situational tasks with justification) test control using a set of standardized tasks (open and closed form tests), programmed control using computer programs for testing, practical testing, self-control.

The final control of the knowledge and skills acquired by the student is carried out after the completion of the study of the program material in the discipline by oral answers to the questions of the FMC examination ticket.

System of current and final control

Control measures for evaluating the educational activity of applicants for higher education include current and final control of knowledge, abilities and skills of higher education students.

Input control is carried out at the beginning of the study of an academic discipline in order to diagnose the entrance level of knowledge of students of higher education and determining the possibility of perception, as well as their readiness to master this educational discipline. According to the results of entrance control, individual work with higher education applicants is organized.

Current control is carried out by teacher during practical classes. The main purpose of current control is to provide feedback between teacher and applicants for higher education in the process of learning and formation of educational motivation to applicants for higher education. Current control is carried out by academic staff during practical classes. The teacher must assess the success of each applicant for higher education in each class on a four-point (traditional) scale, taking into account standardized, generalized criteria for assessing the knowledge of higher education (Table 1).

Assessment of success is integrated (all types of work of the applicant are evaluated, both in preparation for the lesson and during the lesson) according to the criteria that are communicated to the applicants for higher education at the beginning of the discipline. With the beginning of the teaching of the discipline, the teacher informs the applicants for higher education of the requirements for current control of knowledge.

The grade is issued by the teacher in the «Journal of student attendance and success» and synchronously in the «Electronic Journal of PSMU"» (hereinafter EJ) at the end of the class or after checking individual control tasks (written works, solving typical ones or situational tasks and test tasks), but not later than 2 calendar days after the class (in accordance with the «Regulations on the electronic journal of success»).

Table 1

Standardized generalized criteria for assessing the knowledge of higher education higher education seekers

On a 4-point scale	Assessment in ECTS	Evaluation criteria
5 (excellent)	A	An applicant for higher education shows special creative abilities, is able to acquire knowledge independently, without the help of the teacher finds and processes the necessary information, is able to use the acquired knowledge and skills for decision-making in unusual situations, convincingly argues answers, independently reveals own talents and inclinations, possesses not less than 90 % of knowledge on the topic both during the survey and all types of control.

4 (good)	B	An applicant for higher education is fluent in the studied amount of material, applies it in practice, freely solves exercises and tasks in standardized situations, independently corrects errors, the number of which is insignificant, has at least 85% knowledge of the topic as during the survey, and all types of control .
	C	An applicant for higher education is able to compare, summarize, systematize information under the guidance of a researcher, in general, independently apply it in practice, to control his own activities; to correct mistakes, among which there are significant ones, to choose arguments to confirm opinions, has at least 75% of knowledge on the topic both during the survey and all types of control.
3 (satisfactory)	D	An applicant for higher education reproduces a significant part of the theoretical material, shows knowledge and understanding of the basic provisions with the help of research and teaching staff, can analyze educational material, corrects errors, among which there is a meaningful number of significant, has at least 65% knowledge of the topic, and all types of control.
	E	An applicant for higher education has the educational material at a level higher than the initial, a significant part of it reproduces at the reproductive level, has at least 60% knowledge of the topic both during the survey and all types of control.
2 (unsatisfactory)	FX	An applicant for higher education has the material at the level of individual fragments that make up a small part of the material, has less than 60% knowledge of the topic both during the survey and all types of control.
	F	An applicant for higher education has the material at the level of elementary recognition and reproduction of individual facts, elements, has less than 60% knowledge of the topic as during the survey, and all types of control.

After obtaining grades for all topics of the module, an average grade is calculated, which is then converted into rating points for current success from the module using a special scale (table 3). The maximum number of points that an applicant of higher education can score for the current activity while studying the module is 120 points (average score 5.0). The minimum number of points an applicant of higher education can score is 72 points (average score 3.0).

The final control of the assimilation of theoretical and practical material from the academic discipline by the student of higher education is carried out in the form of final modular control (FMC). FMC is carried out after completing the study of the program material from the discipline in the last session of the module

Applicants of higher education who, during the current control, scored the required minimum number of points (a total of 3.0 and above), did not miss lectures and practical classes, mastered the topics for independent work within the module and fulfilled all the requirements of each academic discipline, which are provided by the guidelines a document on the discipline (positive evaluations on the content modules) received permission to complete the FMC).

The questions (situational tasks) to be submitted to the FMC should be formulated in such way that the reference answer of the higher education applicant to each lasts approximately 3-5 minutes. The questions should cover the most important sections of the educational discipline, which are sufficiently covered in the literature sources recommended as the main (basic) in the study of the discipline.

Examination cards for FMC are formed from the questions, which are approved at the department meeting. The total number of questions (situational tasks) in each card should not exceed three. Be sure to ask questions on the FMC on topics that are identified for self-study within the module.

Each question of the examination card is evaluated in the range of 0-30 points, situational task - 0-20 points (Table 2). According to the FMC result, the student is assigned a total score from 0 to 80 points, the points are not converted into a traditional 4-point score (Table 3).

Table 2

FMC structure

Oral answer to the question of control of practical and theoretical training by module (2 questions)	0-60 points
Oral justification of the answer to the situational task	0-20 points

The FMC score is evaluated in points and is not converted into a traditional 4-point score. The maximum number of FMC points is 80 points. The minimum number

of FMC points at which the control is considered to be made is 50 points (Table 3). The maximum number of points per module is 200 points (of which up to 120 points for current performance). In case of violation of the rules of academic respectability by the applicant of higher education, the results of the assessment obtained during the preparation of the FMC should be assessed as "unsatisfactory". Applicants for higher education who during the study of the module, which is the final control, had an average score of current performance from 4.50 to 5.0 are exempt from the FMC and automatically (by agreement) receive a final grade in accordance with table 3, the presence of the applicant education at the FMC is mandatory.

Table 3

Unified table of correspondence of scores for current academic progress, scores for FMC, exam, and traditional four-point score

Average score for current academic progress (A)	Points for current academic progress of the module (A * 24)	Points for FMC of a module (A * 16)	Points for a module and / or exam (A * 24 + A * 16)	Category of ECTS	By 4-point scale
2	48	32	80	F FX	2 Inadequate
2.1	50	34	84		
2.15	52	34	86		
2.2	53	35	88		
2.25	54	36	90		
2.3	55	37	92		
2.35	56	38	94		
2.4	58	38	96		
2.45	59	39	98		
2.5	60	40	100		
2.55	61	41	102		
2.6	62	42	104		
2.65	64	42	106		
2.7	65	43	108		
2.75	66	44	110		
2.8	67	45	112		
2.85	68	46	114		
2.9	70	46	116		
2.95	71	47	118		
3	72	50	122	E	3 Marginal
3.05	73	50	123		

3.1	74	50	124	D	
3.15	76	50	126		
3.2	77	51	128		
3.25	78	52	130		
3.3	79	53	132		
3.35	80	54	134		
3.4	82	54	136		
3.45	83	55	138		
3.5	84	56	140	C	4 Adequate and Good
3.55	85	57	142		
3.6	86	58	144		
3.65	88	58	146		
3.7	89	59	148		
3.75	90	60	150		
3.8	91	61	152		
3.85	92	62	154		
3.9	94	62	156	B	
3.95	95	63	158		
4	96	64	160		
4.05	97	65	162		
4.1	98	66	164		
4.15	100	66	166		
4.2	101	67	168		
4.25	102	68	170		
4.3	103	69	172	A	5 Excellent
4.35	104	70	174		
4.4	106	70	176		
4.45	107	71	178		
4.5	108	72	180		
4.55	109	73	182		
4.6	110	74	184		
4.65	112	74	186		
4.7	113	75	188		
4.75	114	76	190		
4.8	115	77	192		
4.85	116	78	194		
4.9	118	78	196		
4.95	119	79	198		
5	120	80	200		

The final grade for the disciplines is set based on the sum of the student's current performance and the obtained grade for the FMC. The received points for the module are entered by the teacher in the «Report of the final module control» and the individual study plan of the applicant for higher education.

Information about students who did not pass the FMC, with a precise indication of the reason for non-enrollment, is also entered in the "Report of the final module control" and individual study plans of students. The reasons for non-enrollment can be the following:

a) an applicant for higher education has unexcused absences from classes and (or) lectures, internships. The mark "Н/В" (not fulfilled) in the column "points for the PMC";

b) an applicant for higher education has attended all classes (practical, seminar, lecture), but has not gained the minimum number of points for the current learning activity and is not allowed to participate in the FMC. The mark "Н/Д" (not admitted) in the column "points for the FMC";

c) an applicant for higher education attended all classes and scored the number of points for the current learning activities and was admitted to the FMC, but did not appear for the FMC. The mark "Н/З" (did not appear) in the column "points for the FMC".

An applicant for higher education has the right to take and two retakes of FMC.

Regulation of retaking of FMC.

Permission to retake the FMC is issued by the dean of the faculty, the director of the institute (or his deputy) on the form "Personal information of the retake of final control", which the student receives in the dean's office under personal signature upon presentation of an individual study plan and (if necessary) a certificate from the department about the liquidation debt (absence of "НБ", average score of 3.0 or more).

In the event of an organized retaking of the FMC by a group of higher education applicants, a common list is used.

The personal report of retaking of the final modular control (general protocol) is filled out by the head of the department or a person authorized by him in two copies, one of which remains at the department, the second is returned to the dean's office on the day of completion by the head of the educational part of the department (responsible teacher). A student of higher education has the right to retake the FMC before completing the study of the relevant discipline. FMC, which the student did not pass in one discipline, is not a reason to prevent a student of higher education from taking the final semester control in another discipline.

Methodological support:

1. Recommended literature
2. Multimedia presentations of lectures.

3. Multimedia presentations for independent study of topics that are not part of the classroom lessons plan.
4. Syllabus.
5. Materials for monitoring the knowledge, abilities and skills of education seekers (tests of various levels of complexity, situational tasks, computer control programs).

Recommended literature

Basic (available at the library of PSMU)

1. Otorhinolaryngology: textbook/ Yu. Mitin, Yu Deyeva, Ya. Yu. Gomza et al. – 6 th edition. – Медицина, 2020. – 264 с.
2. Juravlev N. et al. Selected Lectures in Otorhinolaryngology (for students of higher medical education of IV level of acceleration, who masters the discipline in English). – Kharkiv. – 2007. – 108 p.
3. Lee's K. J. Essential Otolaryngology: Head and Neck Surgery / eds.: Y. Chan, J. Goddard. – 12th ed. – New York [etc.]: mcgraw-Hill, 2019. – XXVIII, 1313 p.

Supplementary

1. Пропедевтика ендомікrorинохірургії / Безшапочний С.Б., Гасюк Ю.А., Лобурець В.В. – К., ТОВ «Вістка», 2018. - 106 с.
2. Косаковський А., Юрочко Ф., Копанська Д. «Комп'ютерна томографія носа та приносових пазух. Практика оториноларинголога: Львів.: Видавництво «МС», 2019. – 72 с.
4. «Грибкові ураження вуха» / Безшапочний С.Б., Гасюк Ю.А., Зачепило С.В. – Полтава, ТОВ «АСМІ», 2019. – 98 с.
5. Лайко А. А. Роль патології слухової труби у розвитку захворювань середнього вуха / А. А. Лайко, Ю. В. Гавриленко, О. М. Борисенко, В. В. Березнюк // — Вінниця «Твори», 2020— 169 с.
6. Дитяча ринологія. Навч.-метод. посібник / під ред. Ф. Юрочка, А. Косаковського, В. Шкорботуна. — Львів: Мс, 2020. — 288 с., іл.
7. Browning G.G., Rovers M.M., Williamson I. et al. Grommets (ventilation tubes) for hearing loss associated with otitis media with effusion in children // Cochrane Database Syst. Rev. - 2010. - 6. - 10: CD001801.
8. Dhingra Pl., Dhingra Shruti (eds.) Diseases of Ear, Nose and Throat & Head and Neck Surgery / 7th edition. - Elsevier, 2018.- 556 p.- ISBN: 978-81-312-4884-3
9. Sanna M. et al. Color Atlas of Endo-Otoscopy: Examination-Diagnosis-Treatment / Thieme, 2017.- 348 p.- ISBN 978-3-13-241523-2.
10. Ludman Harold S., Bradley Patrick J. (eds.) ABC of Ear, Nose and Throat / 6th edition. - BMJ Books, 2013.- 170 p.- (ABC Series)- ISBN 978-0-470-67135-1

Information resources

Ministry of Education and Science of Ukraine <http://www.mon.gov.ua/>

National Library of Medicine <https://www.nlm.nih.gov/>

The electronic site of the National Library of Ukraine named after V.I. Vernadskyi
<http://www.nbu.gov.ua/>

National Scientific Medical Library of Ukraine <https://library.gov.ua/>

National Center for Biotechnology Information <https://www.ncbi.nlm.nih.gov>

World Health Organization <http://www.who.int/en/>

<http://www.lorlife.kiev.ua/archive.shtml>

Educational portal of NMU n.a. O. O. Bohomoltsia.

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