Ministry of science and high education RF	7
Ulyanovsk State University	
F-Educational plan of the dicipline	



APPROVED BY

by the decision of the Academic Council of the USU Institute of Medicine, Ecology and Physical Culture

16.05.2024 Record №9/260

Chairman Mashin V.V._

(Signature, Name)

«16»

<u>May</u> 2024

EDUCATIONAL PLAN

Subject:	Otorhinolaryngology
Faculty	Medical faculty of T.Z. Biktimirov
Department	Faculty surgery
Course	IV

the code of the direction (specialty), full name

Orientation (profile/specialty) not provided

full name

Form of training_____full-time _____

Date of introducing in the instruction process at UISU: «01» September 2024

Revised at the Department meeting, Record No. _____of _____ 20___

Revised at the Department meeting, Record No. _____of _____ 20___

Revised at the Department meeting, Record No. _____of _____ 20___

Revised at the Department meeting, Record No. _____of _____20__

Information about the authors:

Initials	Abbreviation of the department	Abbreviation of the department
Nesterova Alena Valerevna	faculty surgery	Associate professor, PhD in Medical Sciences, Associate professor

	AGREED	AGREED		
Head of Depart	ment of faculty surgery,	Head of the graduation Department		
developi	ng the discipline	faculty therapy		
signature «25»	/_A.Yu.Vozzhennikov/ & Full name 042024 y.	M. A. Vize-Khripunova / signature Full name «25» 04 2024 y.		

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1. OBJECTIVES AND AIM OF

The purpose of mastering the discipline: the formation of general professional competencies (GPC) GPC-4 and professional competencies (PC) PC-2, PC-3 according to the plan for the development of the educational program.

Tasks of mastering the discipline:

- 1. To acquaint students with the prevalence and significance of diseases of the ear, throat and nose in general pathology, with the importance of timely treatment of ENT pathology in the prevention of general morbidity and recovery of the population, with the principles of dispensary work.
- 2. To acquaint students with the features of the study of ENT organs endoscopy, audiometry, vestibulometry and their significance in the clinical examination of the patient.
- 3. To acquaint students with the etiology, pathogenesis, clinic, diagnosis, prevention and treatment of ENT diseases, which are common and require emergency care.
- 4. To teach students practical skills and methods for providing emergency care for injuries, foreign bodies, bleeding and complicated diseases of ENT organs.

2. PLACE OF THE SUBJECT IN THE STRUCTURE OF GEP:

The discipline «Otorhinolaryngology» refers to the basic part of the professional block of disciplines (B1.B.24) GEP HE of speciality «General medicine».

Mastering the discipline is based on the knowledge, skills and abilities formed by previous disciplines and practices: «Patient care of a therapeutic profile», «Assistant to Junior medical staff», «Preparing for clinical practice», «Familiarization practice», «Ward Nurse Assistant», «General surgery. Introduction to the specialty», «Diagnostic practice», «Scientific style of speech», «Propedeutics of Internal Medicine», «Pathological anatomy», «Nurse Assistant», «Practice for obtaining professional skills and professional experience in the positions of paramedical personnel», «Topographic anatomy and operative surgery», «Dentistry», «Modern aspects of neurology».

Studying the discipline «Otorhinolaryngology» allows students to obtain the necessary knowledge, skills in the development of the following disciplines: «Dermatovenerology», «Neurology, medical genetics, neurosurgery», «Pediatrics», «Faculty surgery», «Faculty therapy», «Ophthalmology», «Professional Diseases», «Psychiatry, Medical Psychology», «Endocrinology», «Hospital Therapy», «Infectious Diseases», «Traumatology, Orthopedics», «Hospital Surgery, Pediatric Surgery», «Contemporary problems pregnancy», «Diabetology and emergency endocrinology», «Forensic medicine», «Clinical pathological anatomy», «Phthisiology», «Oncology, radiation therapy», «Radiation diagnostics», «Clinical Psychology», «Actual Issues of Gynecology», «Topical issues of andrology», «Scientific text analysis (therapy)», «Scientific text analysis (surgery)», «Modern Aspects of Oncology», «Actual Issues of Internal Diseases», «Actual Issues of Hospital Surgery», «Urology and Andrology», «Diagnosis and Treatment of Extrapulmonary Tuberculosis», «Surgical diseases in general medical practice», «Palliative Medicine», «Combined injury», «Clinical electrocardiography», «Inpatient physician assistant», «Forensic Medicine», «Outpatient Clinic Physician Assistant».

3. LIST OF EXPECTED RESULTS OF INSTRUCTION ON THE SUBJECT (UNIT), CORELATED WITH PLANNED RESULTS OF COMPLETING THE PROGRAM

The study of the subject «Otorhinolaryngology» within the completion of the educational program is directed towards the formation of the following general and professional competences in students: GPC-4 and PC-2, PC-3.

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Code and name of the general professional competence

Code and name of the indicator of achievement of general professional competence

GPC-4 Able to use medical devices provided for by the procedure for the provision of medical care, as well as conduct examinations of the patient in order to establish a diagnosis

CI-1 GPC-4

Know: etiology, pathogenesis and preventive measures for the most common diseases; modern classification of diseases; the clinical picture, the characteristics of the course and possible complications of the most common diseases of the ENT organs, occurring in a typical form in different age groups; diagnostic methods, diagnostic capabilities of methods of direct examination of a patient with an otorhinolaryngological profile, modern methods of clinical, laboratory instrumental examination of patients; criteria for the diagnosis of various diseases; clinical and pharmacological characteristics of the main groups of drugs and the rational choice of specific drugs in the treatment of the main pathological syndromes of diseases and emergency conditions in patients; procedures for the provision of medical care for the main diseases of the otorhinolaryngological profile.

CI-2 GPC-4

Be able to: collect anamnesis, interview the patient and / or his relatives, conduct a physical examination of the patient; conduct a primary examination of the systems and organs of the ear, throat, nose; to make a preliminary diagnosis - to synthesize information about the patient in order to determine the pathology and the reasons that cause it; outline the volume of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a sufficient result; formulate a clinical diagnosis; to develop a plan of therapeutic and surgical actions, taking into account the course of the disease and its treatment; to formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents.

CI-3 GPC-4

Own: methods of using medical devices in the diagnosis and treatment of patients with an otorhinolaryngological profile

PC-2 Readiness to collect and analyze patient complaints, data from his anamnesis, examination results, laboratory, instrumental, pathological and other studies in order to recognize a condition or establish the presence or absence of a disease

CI-1 PC-2

Know: diagnostic methods, diagnostic capabilities of methods of direct examination of the patient's otorhinolaryngological profile; modern methods of clinical, laboratory, instrumental examination of patients (including endoscopic, radiological methods).

CI-2 PC-2

To be able to: determine the patient's status: collect anamnesis, interview the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation); conduct a primary examination of ENT organs; outline the volume of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result.

CI-3 PC-2

Own: methods of general clinical objective examination (questioning, examination, palpation) in diseases of the ENT organs; interpretation of the results of laboratory, instrumental diagnostic methods for pathology of internal organs.

PC-3 Readiness to manage and treat patients with various

CI-1 PC-3

Know: criteria for the diagnosis of the most common diseases of the ENT organs. Features of the organization and scope of work of an outpatient-

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nosological forms on an outpatient basis and in a day hospital

polyclinic doctor, modern diagnostic capabilities of the polyclinic service, methods of emergency measures, indications for planned hospitalization; features of treatment of diseases of ENT organs in outpatient settings, incl. day hospital conditions.

CI-2 PC-3

Be able to: to formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents; to develop an algorithm for the management of an otorhinolaryngological patient in a polyclinic.

CI-3 PC-3

Own: an algorithm for determining the tactics of managing a patient with ENT pathology, conducting a differential diagnosis.

4. Volume of the subject

4.1. Volume of the subject in credit points (total): $\underline{3}$

4.2. On types of academic workload (in hours):108

	Number of hours (form of education)				
Type of academic workload	Total according	Including or	n semester		
	to the plan	7	8		
Work of students with a teacher	72	72/72*	1		
Classes:					
lectures	18	18/18*	-		
practical classes and seminars	54	54/54*	-		
lab classes (practical lessons)	-	-	-		
Self-study work	36	36	1		
Concurrent control (number and type: a test, a colloquium, a report)	Oral survey, test the control, problem solving	Oral survey, test the control, problem solving	1		
Course paper	-	-	1		
Types of intermediate attestation (examination, test)	credit	credit	<u>-</u>		
Total number of hours on the subject	108	108	-		

^{*} If it is necessary to use partially or exclusively distance learning technologies in the educational process, it should be noted that the total number of hours (c.u.) set by the Department of discipline/specialty for each discipline/practice remains unchanged and is implemented in full. In this case, in the corresponding section of the educational program the total number of hours of work with students in accordance with the educational plan is allocated and the number of hours for conducting classes in a remote format using e-learning (online courses, lectures and seminars in videoconference mode, virtual practical classes, laboratory work in the form of virtual analogues, calculation and graphic works, individual tasks in the electronic information and educational environment, etc.)

4.3. Contents of the discipline (module). Distribution of hours on themes and kinds of study:

Form of training full-time

1 or m or training	18 <u>1 un</u>	<u> </u>					
Name of			Activity format				
sections and	To-	Classroom studies			Inter-		current
themes	tal	Lec-	Seminars	Laboratory	active	Self-	knowled
		tures	and	work,	classes	study	ge

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r-Educational plan of the dicipline							All and a second
			workshops	workshops		work	control and in- depend- ent work control
1	2	3	4	5	6	7	
Section	on 1. G	eneral iss	ues of otorhino	larvngology	-		
Topic 1. Methods and techniques of endoscopic examination of ENT organs. Clinical anatomy and physiology of the auditory analyzer.	8	-	6	uryingology	2	2	Oral survey, test the control
Topic 2. Research methods of the auditory analyzer. Clinical anatomy, physiology and research methods of the vestibular analyzer.	10	-	6		2	4	Oral survey, test the control
Topic 3. Clinical anatomy, physiology and research methods: nose, paranasal sinuses, pharynx, larynx, trachea, bronchi and esophagus.	10	-	6		-	4	Oral survey, test the control
Section	ı 2. Infl	ammator	y diseases of the	e ENT organs			
Topic 4. Diseases of the external ear. Acute and chronic purulent inflammatory diseases of the middle ear.	12	2	6		-	4	Oral survey, test the control
Topic 5. Otogenic intracranial complications (meningitis, abscess of the brain and cerebellum) and otogenic sepsis. Non-	14	4	6		-	4	problem solving, test the con- trol

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purulent ear diseases: middle ear catarrh, cochlear neuritis, otosclerosis, Meniere's disease							
Topic 6. Diseases of the nose and paranasal sinuses. Rhinogenic complications.	14	4	6		-	4	Oral survey, problem solving, test the control
Topic 7. Pharyngeal diseases: acute and chronic pharyngitis, pharyngomycosis, tonsillitis, specific tonsillitis, paratonsillar abscess, chronic tonsillitis, hypertrophy of lymphadenoid tissue.	14	4	6		-	4	Oral survey, problem solving, test the control
Topic 8. Inflammatory diseases of the larynx. Acute and chronic laryngeal stenosis	12	2	6		2	4	Oral survey, problem solving, test the control
	Emerge	ency cond	<u>litions, tu</u> mors a	and infectious g	<u>ranulo</u> mas	<u>of ENT</u> orga	ns
Topic 9. Injuries, foreign bodies, bleeding from the ENT organs and emergency care for them.	8	-	6		-	2	Oral survey, problem solving, test the control
Topic 10. Tumors and infectious granulomas of the upper respiratory tract and ear.	6	2	-		-	4	problem solving,
Total	108	18	54			36	

5. COURSE CONTENT

Section 1. General issues of otorhinolaryngology

Topic 1 Methods and techniques of endoscopic examination of ENT organs. Clinical anatomy and

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physiology of the auditory analyzer.

The content of the topic.

Mesopharyngoscopy, anterior, middle and posterior rhinoscopy, examination of the respiratory function of the nasal cavity, indirect laryngoscopy, otoscopy, study of ear barofunction. Anatomy of the temporal bone, outer, middle and inner ear. Facial nerve, topography, branches.

Topic 2 Research methods of the auditory analyzer. Clinical anatomy, physiology and research methods of the vestibular analyzer.

The content of the topic.

Study of hearing with speech, tuning forks, tonal threshold and suprathreshold audiometry. Drawing up an auditory passport, reading audiograms, computer audiometry. The study of spontaneous vestibular disorders. Caloric, rotational and pneumatic tests, otolithic reaction. Drawing up a vestibular passport.

Topic 3. Clinical anatomy, physiology and research methods: nose, paranasal sinuses, pharynx, larynx, trachea, bronchi and esophagus.

The content of the topic.

Clinical anatomy of the nose and paranasal sinuses. Features of arterial and venous blood supply, lymphatic drainage of the external nose, nasal cavity and paranasal sinuses, their clinical significance. Clinical anatomy of the pharynx: departments, layers, blood supply, lymphatic system, innervation.

Features of the structure of the pharyngeal space in children. Clinical anatomy of the larynx: cartilage, joints and ligaments, external and internal muscles, blood and lymph supply, innervation, topography of blood vessels and nerves of the head and neck. Clinical anatomy of the esophagus, trachea and bronchi.

Section 2. Inflammatory diseases of the ENT organs

Topic 4. Diseases of the external ear.

Acute and chronic purulent inflammatory diseases of the middle ear.

The content of the topic.

Ear examination methods. Chondroperichondritis of the auricle. Boil of the external auditory canal, diffuse external otitis media, otomycosis, sulfuric plug. Acute otitis media, mastoiditis, atypical forms of mastoiditis. Chronic otitis media. Labyrinthitis

Topic 5. Otogenic intracranial complications (meningitis, abscess of the brain and cerebellum) and otogenic sepsis. Non-purulent ear diseases: middle ear catarrh, cochlear neuritis, otosclerosis, Meniere's disease.

The content of the topic.

Extradural abscess, subdural abscess, brain abscess, cerebellar abscess, sinus thrombosis. Principles and methods of surgical interventions for emergency conditions and ear diseases. Cochlear neuritis: etiology, pathogenesis, clinical features, diagnosis, treatment methods, prevention. Adhesive otitis media: clinic, diagnosis, methods of conservative therapy. Exudative otitis media: clinic, diagnosis, conservative methods of treatment. Otosclerosis: clinic, diagnosis, treatment methods. Meniere's disease: clinic, diagnosis, conservative and surgical methods of treatment

Topic 6. Diseases of the nose and paranasal sinuses. Rhinogenic complications.

The content of the topic.

Boil of the nose. Acute rhinitis. Features of the course of rhinitis in infants. Simple chronic rhinitis. Chronic hyperplastic rhinitis. Chronic atrophic rhinitis. Vasomotor rhinitis: a) allergic, b) neurovegetative. Conservative treatments for chronic rhinitis, surgical treatments for rhinitis. Atresia Hoan. Acute sinusitis, chronic inflammatory diseases of the sinuses. Intracranial and intraorbital

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complications: a) conservative treatment, b) surgical treatment. Physiotherapy for inflammatory diseases of the nose and sinuses.

Topic 7. Pharyngeal diseases: acute and chronic pharyngitis, pharyngomycosis, tonsillitis, specific tonsillitis, paratonsillar abscess, chronic tonsillitis, hypertrophy of lymphadenoid tissue.

The content of the topic.

Acute pharyngitis, chronic pharyngitis, erysipelas of the pharynx, pharyngomycosis. Tonsil hyperplasia, adenoid growths. Sore throats: catarrhal, lacunar, follicular. Tonsils of lingual tonsil. Peptic ulcer. Secondary tonsillitis: with scarlet fever, infectious mononucleosis, diphtheria, agranulocytosis, leukemia. Paratonsillar abscess, parapharyngeal abscess, pharyngeal abscess. Chronic tonsillitis. Physiotherapy for diseases of the pharynx.

Topic 8. Inflammatory diseases of the larynx. Acute and chronic stenosis of the larynx.

The content of the topic.

Acute laryngitis, chronic laryngitis. Angina and phlegmonous laryngitis. Chondroperichondritis. Acute stenosis of the larynx. Physiotherapy for inflammatory diseases of the larynx.

Section 3. Emergency conditions, tumors and infectious granulomas of ENT organs

Topic 9. Injuries, foreign bodies, bleeding from the ENT organs and emergency care for them. Features in children.

The content of the topic.

Injuries and damage to the external ear, foreign bodies of the external auditory canal. Injuries to the nose, emergency care. Epistaxis: classification, assessment of the degree of blood loss, local use of coagulating agents, anterior nasal tamponade, posterior nasal tamponade, detachment of the nasal mucosa, ligation of the adductors throughout. Foreign bodies of the nose: clinical features, complications, methods for their removal. Injuries, foreign bodies and diseases of the pharynx, emergency care for them. Injuries, foreign bodies and diseases of the larynx, esophagus, emergency care for them.

Topic 10. Tumors and infectious granulomas of the upper respiratory tract and ear.

The content of the topic.

Neoplasms of the larynx. Benign laryngeal tumors (papillomas, hemangioma, laryngeal polyp). Benign tumors of the nose and paranasal sinuses (papillomas, angiomas, chondromas, osteomas). Clinic, diagnosis, treatment. Malignant tumors of the nose and paranasal sinuses (cancer, sarcoma, melanoblastoma, estesioneuroblastoma). Angiofibroma of the base of the skull. The clinical picture, depending on the options for the direction of growth and stage of the process. Diagnostics. Treatment. The defeat of the ENT organs in tuberculosis, syphilis, scleroma.

6. TOPICS OF PRACTICAL CLASSES AND SEMINARS

Section 1. General issues of otorhinolaryngology

Topic 1. Methods and techniques of endoscopic examination of ENT organs. Clinical anatomy and physiology of the auditory analyzer

Questions to the topic:

- 1. Organization of the workplace of an otorhinolaryngologist.
- 2. Principles of work with the frontal reflector.
- 3. Mastering the methods of endoscopy of ENT organs.
- 4. Topographic anatomy of the outer ear.
- 5. The system of cavities of the middle ear.
- 6. Structural features of the mastoid process and tympanum.
- 7. The structure of the auditory tube.
- 8. Anatomy of the inner ear, spiral organ.

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- 9. The physiology of the ear, sound-conducting and sound-receiving devices.
- 10. Conducting paths of the auditory analyzer.

Topic 2. Research methods of the auditory analyzer. Clinical anatomy, physiology and research methods of the vestibular analyzer

Questions to the topic:

- 1. Ear research methods (otoscopy, determination of patency of the auditory tube, radiography of the temporal bones).
- 2. Study of hearing acuity by speech.
- 3. Tuning fork (air and bone conduction, auditory passport).
- 4. Audiometry (tonal threshold, sensitivity to ultrasound, computer audiometry). The main types of audiograms.
- 5. Clinical anatomy of the vestibule and semicircular canals.
- 6. The structure of the receptor apparatus of the vestibule and canals.
- 7. The structure of the vestibular analyzer, communication with other systems.
- 8. Adequate and inadequate stimuli of the vestibular apparatus.
- 9. Types of reactions to irritation of the vestibular apparatus.
- 10. Research methods of vestibular function.
- 11. Definition of spontaneous vestibular disorders, caloric, pneumatic tests and otolithic reaction.

Topic 3. Clinical anatomy, physiology and research methods: nose, paranasal sinuses, pharynx, larynx, trachea, bronchi and esophagus

Questions to the topic:

- 1. The structure of the external nose.
- 2. The nasal cavity and its walls.
- 3. Features of blood supply to the nose.
- 4. The functions of the nose.
- 5. The structure of the paranasal sinuses, age-related features.
- 6. Research methods of the nose and sinuses.
- 7. X-ray examination of the nose and sinuses.
- 8. The structure of the pharynx, departments, layers.
- 9. Paratonsillar, parapharyngeal and pharyngeal spaces.
- 10. Lymphadenoid pharyngeal ring.
- 11. Features of the structure of the tonsils.
- 12. The functions of the pharynx. Pharyngeal ring functions.
- 13. Methods of study of the pharynx. X-ray examination of the pharynx.
- 14. Anatomy of the larynx, trachea and bronchi.
- 15. Blood supply and especially the innervation of the larynx.
- 16. The functions of the larynx. Methods of larynx examination direct and indirect laryngoscopy, microlaryngoscopy.
- 17. The anatomy of the esophagus.
- 18. Research methods of the trachea, bronchi and esophagus.

Section 2. Inflammatory diseases of the ENT organs

Topic 4. Diseases of the external ear. Acute and chronic purulent inflammatory diseases of the middle ear

Questions to the topic:

- 1. Sulfur cork.
- 2. Furuncle of the auditory meatus.
- 3. Microbial and fungal otitis externa, perichondritis.
- 4. Acute suppurative otitis media.
- 5. Features of otitis media in infants.

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- 6. Antrit, mastoiditis, atypical forms of mastoiditis.
- 7. Chronic suppurative otitis media.
- 8. Clinical forms of otitis media (mesothympanitis, epithympanitis). Conservative treatment methods. Surgical sanitation operations. Tympanoplasty.
- 9. Labyrinthitis.

Topic 5. Otogenic intracranial complications (meningitis, abscess of the brain and cerebellum) and otogenic sepsis. Non-purulent diseases of the ear: catarrh of the middle ear, cochlear neuritis, otosclerosis, Meniere's disease

Ouestions to the topic:

- 1. Acute catarrh of the middle ear.
- 2. Chronic catarrh of the middle ear.
- 3. Adhesive otitis media.
- 4. Acute cochlear neuritis.
- 5. Chronic cochlear neuritis.
- 6. Otosclerosis.
- 7. Meniere's disease
- 8. Extradural and perisinous abscesses.
- 9. Otogenic meningitis.
- 10. An abscess of the brain and cerebellum.
- 11. Thrombosis of the sigmoid sinus.
- 12. Otogenic sepsis.

Surgical intervention for otogenic complications. Conservative therapy.

Topic 6. Diseases of the nose and paranasal sinuses. Rhinogenic complications. Questions to the topic:

- 1. Curvature of the nasal septum.
- 2. Acute rhinitis.
- 3. Chronic rhinitis.
- 4. Vasomotor rhinitis.
- 5. Acute sinusitis.
- 6. Chronic sinusitis.
- 7. Orbital complications.
- 8. Intracranial complications.
- 9. Anomalies in the development of the nose.
- 10. A boil of a nose.

Topic 7. Pharyngeal diseases: acute and chronic pharyngitis, pharyngomycosis, tonsillitis, specific tonsillitis, paratonsillar abscess, chronic tonsillitis, hypertrophy of lymphadenoid tissue

Questions to the topic:

- 1. Acute pharyngitis.
- 2. Chronic pharyngitis.
- 3. Pharyngomycosis.
- 4. Classification of angina.
- 5. Primary tonsillitis.
- 6. Paratonsillitis. Parapharyngitis. Retropharyngitis.
- 7. Tonsillogenous sepsis.
- 8. Symptomatic (secondary) tonsillitis.
- 9. Chronic tonsillitis.
- 10. Adenoids.
- 11. Hypertrophy of the tonsils.

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Topic 8. Inflammatory diseases of the larynx. Acute and chronic stenosis of the larynx. Questions to the topic:

- 1. Anomalies in the development of the larynx.
- 2. Acute laryngitis.
- 3. Chronic laryngitis.
- 4. Laryngeal tonsillitis.
- 5. Acute stenotic laryngitis.
- 6. Acute stenosing laryngotracheobronchitis.
- 7. Diphtheria of the larynx.
- 8. Acute stenosis of the respiratory tract. Paresis and paralysis of the larynx.
- 9. Chronic airway stenosis.
- 10. Conicotomy, tracheostomy, prolonged nasotracheal intubation.

Section 3. Emergency conditions, tumors and infectious granulomas of ENT organs Topic 9. Injuries, foreign bodies, bleeding from the ENT organs and emergency care for them Questions to the topic:

- 1. Nose injuries.
- 2. Hematoma and abscess of the nasal septum.
- 3. Epistaxis.
- 4. Injuries and burns of the pharynx.
- 5. Burns and injuries of the esophagus.
- 6. Injuries to the neck and larynx.
- 7. Ear injuries. Fractures of the temporal bone. Vibro, baro and ear trauma.
- 8. Foreign bodies of the ear.
- 9. Foreign bodies of the nose and sinuses.
- 10. Foreign bodies of the pharynx.
- 11. Foreign bodies of the lower respiratory tract.
- 12. Foreign bodies of the esophagus.

7. LABORATORY WORKS

Laboratory work is not provided by the curriculum.

8. SUBJECTS OF COURSE PAPERS, TESTS, ESSAYS

This type of work is not provided by the curriculum.

9. QUESTIONS FOR CREDIT ON DISCIPLINE

- 1. The structure of the auricle, topography and anatomy of the external auditory canal.
- 2. The structure of the tympanic cavity, the topography of its walls.
- 3. The structure of the eardrum, especially in infants, muscles and ligaments of the middle ear, auditory ossicles, their functions.
- 4. The structure of the medial wall of the tympanic cavity, the course of the facial nerve, its branches.
- 5. The structure and functions of the Eustachian tube, structural features in infants, the study of ear barofunctions. Types of structure of the mastoid processes, research methods.
- 6. The structure of the cochlea (tympanic and vestibular staircases, liquid media, membranous membranes of the wall of the membranous cochlea, plumbing of the cochlea, the structure of the main membrane).
- 7. The structure of the Corti's organ, pathways, the center of hearing
- 8. Physiology of the auditory analyzer (range of perception of sounds, the main properties of the auditory analyzer, sound conduction, sound perception, bone and air conduction, Helmholtz theory, other hearing theories).
- 9. Methods of hearing research: whispering and colloquial speech, tuning forks. The main laws of sound-conducting and sound-absorbing hearing loss according to tonal audiometry.

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- 10. Clinical anatomy of the vestibular analyzer (structure of semicircular canals and sacs of vestibules, ampullar and otolith receptors).
- 11. Conducting paths of the vestibular analyzer, central departments, communication with various systems.
- 12. Physiology of the vestibular analyzer (function and adequate stimulus of the semicircular canals and sacs of the vestibule). Evald's experience, the laws that he deduced, the "iron" laws of Voyachek.
- 13. Research methods of the vestibular analyzer (study of spontaneous vestibular disorders), their assessment.
- 14. Research methods of the vestibular analyzer (rotational, caloric, pneumatic tests, otolithic reaction), their assessment.
- 15. Clinical anatomy of the nose (structure of the external nose, structure of the nasal cavity, structure of the nasal concha, respiratory, olfactory and reflexogenic zones of the nose).
- 16. Clinical anatomy of the nose (topography of the walls of the nasal cavity).
- 17. Features of the blood supply to the nose, features of the venous outflow from the nasal cavity, value for the clinic.
- 18. Clinical anatomy and topography of the maxillary sinuses and ethmoid labyrinth. (etiology, clinic, diagnosis, treatment).
- 19. Limited (boil) and diffuse external otitis media (etiology, clinic, diagnosis, treatment).
- 20. Otomycosis (etiology, clinic, diagnosis, treatment).
- 21. Acute purulent otitis media (etiology, pathogenesis, clinical stages, emergency care in the first stage, treatment).
- 22. Mastoiditis (etiology, pathogenesis, manifest clinical symptoms, diagnosis, treatment.Purpose, essence of anthromastoidotomy). Atypical forms of mastoiditis.
- 23. Chronic suppurative otitis media (mesotympanitis). Etiology, pathogenesis, clinical features, treatment principles.
- 24. Chronic suppurative otitis media (epithympanitis). Etiology, pathogenesis, clinic, principles of treatment. Purpose, essence of radical surgery for chronic suppurative epitympanitis, indications for surgery.
- 25. Otogenic purulent meningitis; etiology, the spread of infection, the main, manifest clinical symptoms. Diagnostic methods, treatment principles.
- 26. Otogenic sepsis (sinus thrombosis): etiology, pathogenesis, ways of infection, the main, manifest clinical symptoms. Diagnostic methods, treatment principles.
- 27. Otogenous brain abscess: etiology, pathogenesis, pathways of infection, clinical stages. Symptoms of a clear stage. Diagnostic methods, treatment principles.
- 28. Otogenous cerebellar abscess: etiology, pathogenesis, pathways of infection, main, manifest clinical symptoms. Diagnostic methods, treatment principles.
- 29. Otogenic labyrinthitis: etiology, pathogenesis, classification, clinic, diagnosis, treatment.
- 30. Acute catarrh of the middle ear (exudative otitis media): etiology, pathogenesis of the clinic, diagnosis, nature of auditory impairment, treatment principles.
- 31. Acute sensorineural hearing loss: etiopathogenesis, clinical features, diagnosis, treatment.
- 32. Sulfur cork and foreign bodies of the external auditory meatus.
- 33. Tumors of the outer and middle ear: clinic, diagnosis, treatment principles.
- 34. Foreign bodies of the nose. Rhinoliths. Removal Methods. Features of removal in young children.
- 35. Nose injuries, fractures of the nasal bones. Classification, clinic, diagnosis, emergency care.
- 36. Hematoma and abscess of the nasal septum (etiology, clinic, diagnosis, treatment). Possible complications with improper treatment.
- 37. Epistaxis: etiopathogenesis, clinic, emergency care, treatment.
- 38. Nasal boil: etiopathogenesis, clinical features, complications, treatment.
- 39. Curvature of the nasal septum, etiology, classification, clinic, diagnosis, treatment principles.
- 40. Acute rhinitis: etiopathogenesis, stage by stage clinic, diagnosis, treatment. Features of the course of acute rhinitis in infants.

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- 41. Classification of chronic rhinitis. Etiopathogenesis, clinic, diagnosis, treatment of catarrhal rhinitis.
- 42. Atrophic rhinitis: etiopathogenesis, clinical features, differential diagnosis, principles and methods of treatment.
- 43. Classification of chronic rhinitis. Hypertrophic rhinitis: etiopathogenesis, clinical features, differential diagnosis, principles and methods of treatment.44 Vasomotor rhinitis: etiopathogenesis clinic, differential diagnosis, principles and methods of treatment.45. Acute sinusitis (maxillitis): etiopathogenesis, clinical features, differential diagnosis, complications. Principles and methods of treatment.
- 46. Acute frontal sinusitis: etiopathogenesis, clinical features, diagnostic methods, principles and treatment methods.
- 47. Acute ethmoiditis: etiopathogenesis, principles and methods of treatment, complications.
- 48. Acute sphenoiditis: etiopathogenesis, clinic, principles and methods of treatment.
- 49. Orbital complications of acute and chronic sinusitis: pathogenesis, classification, clinic, treatment.
- 50. Rhinogenic abscess of the frontal lobe of the brain: etiology, pathogenesis, pathways of infection, clinical stages. Symptoms of a clear stage. Diagnostic methods, treatment principles.
- 51. Rhinogenic sepsis-thrombosis: etiopathogenesis, clinical features, diagnosis, differential diagnosis with eye phlegmon, principles and methods of treatment.
- 52. Youthful angiofibroma of the nasopharynx, early and manifest symptoms, clinical features, diagnosis, treatment principles.
- 53. Acute and chronic pharyngitis: etiopathogenesis, classification, clinic, treatment.
- 54. Sore throats: definition of tonsillitis, etiopathogenesis, classification, clinic, diagnosis, treatment.
- 55. Simulovsky-Vincent's ulcerous-film angina: etiopathogenesis, clinic, diagnosis, treatment.
- 56. Paratonsillar abscess, pharyngeal abscess: etiology, clinic, diagnosis, emergency care, treatment, possible complications.
- 57. Chronic tonsillitis: etiopathogenesis, classification, clinic, objective signs, principles of treatment of chronic compensated tonsillitis.
- 58. Chronic tonsillitis: etiopathogenesis, classification, clinic, objective signs, principles of treatment of chronic decompensated tonsillitis.
- 59. Hypertrophy of the pharyngeal and palatine tonsils. Etiology, classification, clinic, diagnosis, treatment principles.
- 60. Sore throat with blood diseases (agranulocytosis, infectious mononucleosis), clinical features, diagnosis.
- 61. Angina with diphtheria and scarlet fever, clinical features, diagnosis.62. Foreign bodies of the pharynx: clinic, complications, removal methods.
- 63. Acute laryngitis: etiopathogenesis, clinical features, treatment.
- 64. Laryngeal tonsillitis and phlegmonous laryngitis: pathogenesis, clinical features, complications, treatment.
- 65. Acute sub-laryngitis: etiopathogenesis, clinical features, diagnosis, complications, treatment.
- 66. Chronic laryngitis: etiopathogenesis, classification, clinic, diagnosis, complications, treatment.
- 67. Foreign bodies of the larynx and trachea; pathogenesis, clinic, diagnostics, removal methods.
- 68. Foreign bodies of the bronchi: pathogenesis, clinical features, diagnosis, methods of removal.
- 69. Foreign bodies of the esophagus: pathogenesis, clinical features, removal methods.
- 70. Burns of the oral cavity, pharynx and esophagus: pathogenesis, clinical features, complications, treatment.
- 71. Benign laryngeal tumors: etiology, clinical features, treatment principles.
- 72. Laryngeal cancer: etiology, clinical features, treatment principles.
- 73. The defeat of the ENT organs in syphilis, tuberculosis and scleroma.

10. SELF-STUDY WORK OF STUDENTS

Form of training full-time

Name of the section / sub-	Types of SSW	Total	Current control
ject			

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		num- ber of hours	
Section 1. General issues of otorhinolaryngology Topic 1. Methods and techniques of endoscopic examination of ENT organs. Clinical anatomy and physiology of the auditory analyzer.	Independent work with literary sources. Independent work on developing research methods for ENT organs.	2	problem solving, test the control
Theme 2. Research methods of the auditory analyzer. Clinical anatomy, physiology and research methods of the vestibular analyzer.	Independent work on developing research methods for ENT organs. Study material training. Work with literary sources.	4	problem solving, test the control
Topic 3. Clinical anatomy, physiology and research methods: nose, paranasal sinuses, pharynx, larynx, trachea, bronchi and esophagus.	Work with literary sources.	4	test the control
Section 2. Inflammatory diseases of the ENT organs. Topic 4. Diseases of the external ear. Acute and chronic purulent inflammatory diseases of the middle ear.	Work with literary sources.	4	problem solving, test the control
Topic 5. Otogenic intracranial complications (meningitis, abscess of the brain and cerebellum) and otogenic sepsis. Non-purulent diseases of the ear: catarrh of the middle ear, cochlear neuritis, otosclerosis, Meniere's disease.	Work with literary sources.	4	problem solving, test the control
Topic 6. Diseases of the nose and paranasal sinuses. Rhinogenic complications.	Work with literary sources.	4	problem solving, test the control
Topic 7. Pharyngeal diseases: acute and chronic pharyngitis, pharyngomycosis, tonsillitis, specific tonsillitis, paratonsillar abscess, chronic tonsillitis, hypertrophy of lymphadenoid tissue.	Work with literary sources.	4	problem solving, test the control
Topic 8. Inflammatory diseases of the larynx. Acute and chronic stenosis of the larynx.	Work with literary sources.	4	problem solving,
Topic 9. Injuries, foreign bodies, bleeding from the ENT organs and emergency care for	Work with literary sources.	2	problem solving, test the control

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them.			
Topic 10. Tumors and infec-	Work with literary sources.		problem solving
tious granulomas of the upper		4	
respiratory tract and ear.			

11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE a) List of recommended literature

Core reading:

- 1. Palchun, V. T. Otorhinolaryngology / Palchun V. T. , Kryukov A. I. , Magomedov M. M. Москва : ГЭОТАР-Медиа, 2020. 560 с. ISBN 978-5-9704-5473-2. Текст : электронный // ЭБС "Консультант студента" : [сайт]. URL : https://www.studentlibrary.ru/book/ISBN9785970454732.html.
- 2. Шпотин В. П. Training manual for the discipline "Otorhinolaryngology" for English-speaking students = Учебное пособие по дисциплине «Оториноларингология» для англоязычных студентов / В. П. Шпотин, А. А. Григорьева. Астрахань : Астраханский ГМУ, 2021. 104 с. ISBN 9785442406122. Текст : электронный // ЭБС "Букап" : [сайт]. URL : https://www.books-up.ru/ru/book/training-manual-for-the-discipline-otorhino-laryngology-for-english-speaking-students-14503488/

Additional literature:

- Антипина О. В. Situational tasks in otorhinolaryngology: collection of tasks / О. В. Антипина, М. В. Субботина. - Иркутск: ИГМУ, 2019. - 101 с. - Текст: электронный // ЭБС "Букап": [сайт]. - URL: https://www.books-up.ru/ru/book/situational-tasks-in-otorhinolaryngology-12244684/
- 2. Нестерова Алена Валерьевна.

Methods of research of ent organs : электронный учебный курс / Нестерова Алена Валерьевна, Д. В. Колчин. - Ульяновск : УлГУ, 2019. - URL: https://portal.ulsu.ru/course/view.php?id=91716 . - Режим доступа: Портал ЭИОС УлГУ. - Текст : электронный.

Educational and methodical literature:

1. Nesterova A. V. Methodological instructions for practical classes and self-study work of students on the discipline «Otorhinolaryngology» of speciality 31.05.01 «General medicine» / A. V. Nesterova; Ulyanovsk State University. - Ulyanovsk : UlSU, 2022. - 15 р. - Неопубликованный ресурс; На англ. яз. - URL: http://lib.ulsu.ru/MegaPro/Download/MObject/11566 . - Режим доступа: ЭБС УлГУ. - Текст : электронный.

Leading specialist	/ Стадольникова Д.Р. /	Comal	/24.04.2024
The position of the worker scientific library	Full name	signature	data

Professed data base, directory and search systems:

1. Electronic library systems:

Agreed:

- 1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». Саратов, [2024]. URL: http://www.iprbookshop.ru. Режим доступа: для зарегистрир. пользователей. Текст : электронный.
- 1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». Москва, [2024]. URL:

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https://urait.ru. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

- 1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». Москва, [2024]. URL: https://www.studentlibrary.ru/cgi-bin/mb4x. Режим доступа: для зарегистрир. пользователей. Текст : электронный.
- 1.4. Консультант врача. Электронная медицинская библиотека: база данных: сайт / OOO «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». Москва, [2024]. URL: https://www.rosmedlib.ru. Режим доступа: для зарегистрир. пользователей. Текст: электронный.
- 1.5. Большая медицинская библиотека: электронно-библиотечная система: сайт / ООО «Букап». Томск, [2024]. URL: https://www.books-up.ru/ru/library/. Режим доступа: для зарегистрир. пользователей. Текст: электронный.
- 1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». Санкт-Петербург, [2024]. URL: https://e.lanbook.com. Режим доступа: для зарегистрир. пользователей. Текст : электронный.
- 1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». Москва, [2024]. URL: http://znanium.com . Режим доступа : для зарегистрир. пользователей. Текст : электронный.
- **2. КонсультантПлюс** [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» Электрон. дан. Москва : КонсультантПлюс, [2024].
- **3. eLIBRARY.RU**: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». Москва, [2024]. URL: http://elibrary.ru. Режим доступа : для авториз. пользователей. Текст : электронный
- 4. Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. Москва, [2024]. URL: https://нэб.рф. Режим доступа : для пользователей научной библиотеки. Текст : электронный.
- **5.** Российское образование : федеральный портал / учредитель $\Phi \Gamma A Y \ll \Phi H U T O \gg 0$. URL: http://www.edu.ru. Текст : электронный.
- **6.** Электронная библиотечная система УлГУ: модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». URL: http://lib.ulsu.ru/MegaPro/Web. Режим доступа: для пользователей научной библиотеки. Текст: электронный.

Согласовано:

Инженер ведущий /	Щуренко Ю.В.	1 ha Coul	_/ <u>16.04.2024</u> г.
Должность сотрудника УИТиТ	ФИО	подпись	дата

12. MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE:

The lecture halls are equipped with multimedia equipment to provide information to a large audience. The rooms for independent work are equipped with computer equipment with the ability to connect to the Internet and providing access to an electronic educational information environment, an electronic library system. Specialized study rooms of the otorhinolaryngology discipline have individual jobs for students. The following equipment is available for practical training:

- 1. A set of ENT tools, a set of radiographs, forms of audiograms.
- 2. Otoscope.
- 3. Politzer balloon, Siegel pneumatic ear funnel.
- 4. Tuning fork s128.
- 5. Armchair Barani.

Office equipment used in the educational process:

1. Computer (stationary display and unit, laptop)

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2. Multimedia projector

13. SPECIAL CONDITIONS FOR STUDENTS WITH DISABILITIES

If it is necessary, students with disabilities (at the request of the student) may be offered the following options for perceiving information, according their individual psychophysical characteristics:

- for persons with visual impairment: printed information in large print; in the form of an electronic document; in the form of an audio file (translation of training materials into audio format; individual tasks and consultations;
- for persons with hearing impairment: in print; in the form of an electronic document; individual tasks and consultations;
- -for persons with disorders of the musculoskeletal system: in print; in the form of an electronic document; in the form of an audio file; individual tasks and consultations.

If it is necessary to use partially / exclusively distance educational technologies in the educational process, the organization of teaching staff work with students with disabilities and disabled people is provided in the electronic information and educational environment, taking into account their individual psychophysical characteristics.

Mu-

Developer

Candidate of Medical Sciences A.V. Nesterova

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