

**MEDICAL UNIVERSITY-PLOVDIV**

**FACULTY OF MEDICINE**

**PROGRAMME**

**IN**

**OTORHINOLARYNGOLOGY**

**MEDICAL UNIVERSITY-PLOVDIV**  
**FACULTY OF MEDICINE**

**Course name:**

„Otorhinolaryngology”

**Type of the course according to the Uniform State Requirements:**

Mandatory

**Level of Education:**

Master /M/

**Form of Education:**

Lecture courses, practical courses, self-training.

**Semesters of Education:**

1

**Auditorium classes:**

45 hours of lecture courses, 45 hours of practical courses

**Auxillary teaching aids:**

Multimedia presentations, discussions, demonstration of patient-based cases, abnormal findings of CT, MRI.

**Ongoing evaluation:**

Participation in seminars, tests, essay preparation and presentation

**Final evaluation:**

Yes / written, practical and oral examination/

**Lecturer:**

Full Professor from the Department of Otorhinolaryngology.

**Department:**

Otorhinolaryngology

## CURRICULUM

Course name	Exams	Horarium			By Year and Semester						
	Semesters	Overall	Lectures	Practical	IV	V	VI	VII	VIII	IX	X
<b>Otorhinolaryngology</b>	1	90	45	45	1/1						

### LECTURE COURSE

№	THEME	DURATION	DATE
1.	<p style="text-align: center;"><i>Conditions of the external ear.</i></p> <p>Developmental anomalies of the external ear. Impetigo of the external ear. Seborrheic dermatitis. Eczema of the ear. Frostbite of the external ear. Thermal injury of the external ear. Erysipelas of the external ear. Othematoma. Otomycosis. Foreign bodies in the external ear canal. Traumatic rupture of the tympanic membrane. Earwax. Exostosis of the external auditory canal. Perichondritis of the external ear. Tumors of the external ear.</p>	<b>3h.</b>	
2.	<p style="text-align: center;"><i>Conditions of the middle ear.</i></p> <p>Acute inflammation of the Eustachean tube /Otitis serosa acuta/. Otitis media with effusion /Otitis serosa chronica/. Acute otitis media. Acute otitis and infectious diseases. Acute otitis media in infants . Streptococcus mucosus otitis. Ear barotrauma. Facial nerve palsy. Acute mastoiditis.</p>	<b>3h.</b>	

<p><b>3.</b></p>	<p><b><i>Chronic otitis media and specific infectious diseases of the middle ear.</i></b></p> <p>Mesotympanitis. Epitympanitis. Tuberculosis of the middle ear. Syphilitic otitis media. HIV-associated otitis. Tumors of the middle ear.</p>	<p><b>3h.</b></p>	
<p><b>4.</b></p>	<p><b><i>Conditions of the inner ear.</i></b></p> <p>Inflammatory diseases of the inner ear. Labyrinthitis and vestibular neuritis, Cochlear neuritis. Sudden hearing loss. Tinnitus. Presbycusis. Deafness. Herpes zoster oticus. Non-inflammatory diseases of the inner ear. Meniere's disease. Otosclerosis. Tumors of the internal auditory meatus /Statoacoustic neuroma/</p>	<p><b>3h.</b></p>	
<p><b>5.</b></p>	<p><b><i>Otogenic intracranial complications.</i></b></p> <p>Extradural abscess. Subdural abscess. Otogenic purulent meningitis. Otogenic arachnoiditis. Thrombophlebitis of the sigmoid sinus and otogenic sepsis,. Thrombophlebitis of the cavernous sinus. Otogenic brain abscess. Abscess of the cerebellum. Ageing and the auditory and vestibular system.</p>	<p><b>3h.</b></p>	
<p><b>6.</b></p>	<p><b><i>Conditions of the nose and paranasal sinuses.</i></b></p> <p>Deformities of the external nose. Deformities of the paranasal sinuses. Deviation of the nasal septum - septoplasty. Rhinophyma. Foreign bodies in the nose. Rhinitis sicca anterior. Epistaxis. Nasal bone fractures. Hematoma and abscess of the nasal septum. Tumors of the external nose.</p>	<p><b>3h.</b></p>	

7.	<p style="text-align: center;"><b><i>Inflammatory diseases of the nose.</i></b></p> <p>Acute rhinitis in infants and young children. Furuncle of the nasal vestibule. Gonococcal rhinitis. Dyphteria of the nose. Chronic rhinitis – foreign body in the nose. Chronic rhinitis. Chronic atrophic rhinitis with fetor. Smell disorders.</p>	<b>3h.</b>	
8.	<p style="text-align: center;"><b><i>Conditions of the paranasal sinuses.</i></b></p> <p>Inflamatory diseases of the paranasal sinuses. Acute sinusitis. Acute maxillary sinusitis. Acute ethmoiditis. Acute frontal sinusitis. Acute sphenoid sinusitis. Chronic sinusitis. Aerosinusitis. Surgical treatment of sinus diseases. Allergic rhinitis. Seasonal allergic rhinitis /Hay fever/. Non-seasonal allergic rhinitis. Vasomotor rhinitis. Nasal polyposis.</p>	<b>3h.</b>	
9	<p style="text-align: center;"><b><i>Complications of the paranasal sinus diseases. Tumors of the paranasal sinuses.</i></b></p> <p>Orbital complications of sinusitis. Palpebral edema. Palpebral abscess. Orbital periostitis. Apex orbitae syndrome. Orbital celulitis. Orbital abscess and phlegmon. Optic neuritis. Neoplasms of the nasal cavity and paranasal sinuses – benign and malignant.</p>	<b>3h.</b>	
10	<p style="text-align: center;"><b><i>Conditions of the oral cavity and tongue.</i></b></p> <p>Congenital anomalies /anomalies of the lips, mouth and palate clefts/. Inflammatory diseases of the lips and oral cavity - cheilitis, stomatitis. Catarrhal and purulent stomatitis. Necrotising ulcerative stomatitis. Gangrenous stomatitis. Noma of the mouth. Mycotic stomatitis. Chemical stomatitis. Oral manifestation of systemic and hematological diseases. Abscesses of the floor of the mouth and tongue. Submandibular phlegmon. Glossitis. Tumors of the oral cavity and tongue – benign and malignant.</p>	<b>3h.</b>	

<p><b>11</b></p>	<p><i>Conditions of the salivary glands.</i></p> <p>Salivary secretion disorders. Salivary glands trauma. Sialadenitis. sialolithiasis. Submandibular gland cysts. Acute and chronic inflammatory diseases of the salivary glands. Sialosis. Lymphomatosis and granulomatosis of the salivary and lacrimal glands – Miculicz disease. Tumors of the salivary glands – benign and malignant.</p>	<p><b>3h.</b></p>	
<p><b>12</b></p>	<p><i>Conditions of the pharynx.</i></p> <p>Inflammatory diseases – acute nasopharyngitis, acute non-specific pharyngitis, chronic non-specific pharyngitis, herpetic lesions of the pharynx. Tonsillitis – Viral tonsillitis, Acute tonsillitis, Acute adenoiditis, Plaut-Vincent angina. Symptomatic tonsillitis. Chronic tonsillitis,. Adenoid vegetations. Tonsillar hypertrophy. Obstructive sleep apnea.</p>	<p><b>3h.</b></p>	
<p><b>13</b></p>	<p><i>Conditions of the pharynx</i></p> <p>Complications of the inflammatory diseases of the pharynx – peritonsillary abscess, retropharyngeal abscess, parapharyngeal abscess. Pharyngeal trauma. Tumors of the pharynx – benign and malignant.</p>	<p><b>3h.</b></p>	
<p><b>14</b></p>	<p><i>Conditions of the larynx, trachea and bronchi.</i></p> <p>Acute laryngitis. Croup. Acute epiglottitis. Laryngeal edema. Laryngeal abscess. Acute stenosing laryngotracheitis. Chronic laryngitis. Foreign bodies in the larynx. Laryngeal trauma. Acute laryngeal stenosis. Laryngeal dyspnea. Chronic laryngeal stenosis. Laryngeal paralysis. Acute and chronic tracheal stenosis. Foreign bodies in the trachea and bronchi</p>	<p><b>3h.</b></p>	
<p><b>15</b></p>	<p><i>Conditions of the larynx and esophagus.</i></p>		

	Benigna and malignant neoplasms of the larynx. Cervical metastasis. Chronic infectious and specific diseases of the upper respiratory tract – Respiratory scleroma, Tuberculosis, Syphilis. Professional diseases of the ENT. Conditions of the esophagus – Diverticulus, Spasm, Varices, Esophagitis and Reflux disease. Chemical trauma of the esophagus. Esophageal stricture. Foreign bodies in the esophagus	<b>3h.</b>	
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### PRACTICAL COURSE

№	THEME	DURATION	DATE
1.	<b><i>Examination of the external ear</i></b> Introductory speech. Anamnesis, Inspection, Palpation. Otoscopy. Position of the physician and the patient. Setup and instruments. Methods of examination in the ENT practice	<b>3h..</b>	
2.	<b><i>Otoscopic examination of the healthy tympanic membrane</i></b> Clinical anatomy of the middle ear. Anatomical landmarks of the tympanic membrane: mobility, position, color and integrity of the tympanic membrane, /central and peripheral perforations/. Examination of the eustachian tube /Poltzer balloon test, Valsalva maneuver/.	<b>3h.</b>	
3.	<b><i>Otoscopic examination of tympanic membrane pathology</i></b> Demonstration of patients with acute and chronic infection of the middle ear – cleaning of the discharge. Earwax removal. Clinical anatomy of the middle ear	<b>3h.</b>	

4.	<p><b><i>Functional examination of hearing</i></b>  Physiology of hearing. Speech test, Tuning fork tests. Audiometry. Frequency spectrum of perception. Conductive and sensorineural hearing loss. Weber, Rinne, Schwabach and Gelle tests</p>	3h.	
5.	<p><b><i>Functional examination of the vestibular system</i></b>  Physiology of balance. Caloric reflex test, Barany rotation test. Pressure test. Fistula test. Demonstration of patients with balance disorders.</p>	3h.	
6.	<p><b><i>Examination of the nose</i></b>  Clinical anatomy of the nose. Respiratory and olfactory functions of the nose. Anterior, middle and posterior rhinoscopy. Nasal packing. Demonstration of patients with diseases of the nose.</p>	3h.	
7.	<p><b><i>Examination of the paranasal sinuses</i></b>  Clinical anatomy of paranasal sinuses. Anamnesis, Inspection, Palpation. Maxillary sinus puncture. Radiological examination of paranasal sinuses. Demonstration of patients with paranasal sinus pathology</p>	3h.	
8.	<p><b><i>Examination of oral cavity and pharynx</i></b>  Clinical anatomy and physiology of mouth and pharynx. Anamnesis, Inspection, Palpation. Examination of the pharynx and tonsils. Demonstration of patients with pathology of the mouth and pharynx.</p>	3h.	
9.	<p><b><i>Examination of the larynx</i></b>  Clinical anatomy and physiology of the larynx. Anamnesis, Inspection, Palpation. Indirect and direct laryngoscopy. Demonstration of patients with diseases of the larynx.</p>	3h.	
10.	<p><b><i>Examination of patients</i></b>  Bronchoscopy, Esophagoscopy, Foreign bodies in the esophagus and esophageal dilatation.</p>	3h.	
11	<p><b><i>Exercise XI to XIV: Examination of ENT patients</i></b>  Examination of patients in the ENT practice Methods of treatment in the ENT practice. Emergency ENT.</p>	3h.	



## SYLLABUS

<p>1. Anatomy and physiology of the external ear. Non-inflammatory diseases and inflammatory diseases. Otomycosis.</p>	<p>2. Anatomy and physiology of the middle ear. Methods of investigations. Acute Otitis media in adults and infants. Otitis media with effusion, Mastoiditis, Facial nerve paralysis. Clinical complications.</p>
<p>3. Chronic Otitis media - types. Clinical complications. Traumatic rupture of the tympanic membrane.</p>	<p>4. Anatomy and physiology of the inner ear. Methods of investigation. Otosclerosis. Clinical complications.</p>
<p>5. Vestibular disorders. Examination of the Vestibular System. Meniere's Disease, Labyrinthitis. Vestibular Neuritis.</p>	<p>6. Otogenic complications – extracranial and intracranial. Investigations and treatment.</p>
<p>7. Anatomy and physiology of the nose. Clinical Examination of the Nose. Nasal pyramid fracture. Epistaxis.</p>	<p>8. Anatomy and physiology of the paranasal sinuses. Clinical Examination of the. Acute and Chronic Rhinosinitis.</p>
<p>9. Pediatric Rhinosinitis. Orbital complications in diseases of the nose and paranasal sinuses. Cerebrospinal Fluid Rhinorrhea</p>	<p>10. Allergic Rhinitis. Nasal polyposis. Neoplasms of the Nose and Paranasal Sinuses.</p>
<p>11. Basic Anatomy and Physiology of the Lips and Oral Cavity. Inflammations of the Lips and Oral Cavity. Oral Floor Abscess. Angioedema. Anatomy, Physiology and Immunology of the Pharynx. Methods of Examining the Pharynx.</p>	<p>12. Diseases of the Pharynx. Diseases of the Nasopharynx – adenoids, juvenile angiofibroma. Acute and Chronic Tonsillitis, Scarlet Fever, Plaut-Vincent Angina, Diphtheria, Infectious Mononucleosis. Tonsillogenic complications: Peritonsillar abscess. Retropharyngeal and parapharyngeal abscess. Diseases of the hypopharynx.</p>
<p>13. Diseases of the Salivary glands. Anatomy, Clinical Examination, Imaging Studies, and Biopsy of the Salivary Glands. Noninflammatory and Inflammatory Diseases. Sjogren Syndrome. Tumors of the Salivary Glands.</p>	<p>14. Adult and Pediatric Obstructive Sleep Apnea. Diagnosis, Physical Examination and Treatment.</p>

<p>15. Anatomy and physiology of the larynx. Methods of Examination. Stridor. Malformations of the larynx. Diphtheria. Acute Subglottic Laryngitis. Acute Epiglottitis. Acute laryngitis. Angioneurotic Laryngeal Edema. Chronic Nonspecific Laryngitis. Reinke's Edema. Tuberculous Laryngitis</p>	<ul style="list-style-type: none"> <li>• 16. Tumors of the Larynx. Vocal Cord Polyps. Vocal Cord Nodules. Laryngeal Papilloma. Laryngeal Squamous Cell Carcinoma. Spindle Cell Carcinoma. Neuroendocrine Carcinoma. Surgical treatment options for laryngeal carcinoma. Laryngectomy Effects and Voice Rehabilitation. Tracheotomy and Cricothyrotomy</li> </ul>
<p>17. Laryngeal Trauma. Recurrent Laryngeal Nerve Paralysis. Basic Principles of Speech. Dysphonia. Vocal Cord Paralysis. Stridor. Cough.</p>	<ul style="list-style-type: none"> <li>• 18. Emergencies and Primary Measures in the ear, nose and throat. Foreign Bodies. Anatomy and physiology of the Esophagus. Corrosive Esophagitis. Treatment.</li> </ul>