

Study program: Integrated academic studies in medicine			
Type and level of the study program: integrated academic studies			
Course title: Otorhinolaryngology(M6 - ORL)			
Teacher: Rajko M. Jović, Ljiljana M. Vlaški, Zoran S. Komazec, Gordana M. Mumović, Slobodan N. Savović, Vladimir L. Kljajić, Slobodanka N. Lemajić Komazec, Maja M. Buljić-Čupić, Ljiljana D. Jovančević, Danijela M. Dragičević			
Course status: compulsory			
ECTS Credits: 3			
Condition: Surgery; Stomatology with maxillofacial surgery (exam)			
Course aim The aim of this course is to teach students to recognize the clinical picture, understand the etiology and pathogenesis of different pathological entities, understand and accept different diagnostic procedures and treatment disease of the otorinolaryngology and head and neck diseases.			
Expected outcome of the course: In everyday clinical practice medical students will know how to recognize and cure different cases of head and neck diseases. Students will master necessary skills for conservative and surgical treatment of head and neck diseases.			
Course description <i>Theoretical education</i> 1. Anatomy and physiology of the ear. Diagnostics of otological diseases. 2. Injuries of the ear. Foreign bodies of the external hearing canal and cerumen. 3. Acute inflammation of the outer and middle ear 4. Chronic inflammation of the middle ear. 5. Otogenic complications. 6. Inner ear disease. Benign and malignant tumors of the outer, middle and inner ear. 7. Audiology. Vestibulology. 8. Anatomy and physiology of the nose and paranasal cavities. Congenital and acquired malformations of the nose. 9. Foreign body in the nose. Injuries of the nose. Bleeding from the nose. Inflammation of the skin of the nose. 10. Facial injuries 11. Acute and chronic inflammation of nasal mucosa. Allergic rhinitis. Nasal polyps. 12. Acute and chronic inflammation of the paranasal cavities. Complications associated with paranasal cavity inflammations. 13. Rare diseases of the nose and paranasal cavities. Tumors of the nose and paranasal cavities). 14. Anatomy and Physiology of oral cavity and pharynx. Reticulo-endothelial function of muscle. Hypertrophy of the lymphatic ring. Taste disorders. 15. Congenital anomalies of the oral cavity and pharynx. Injuries of oral cavity and pharynx. Inflammatory diseases of the oral cavity. Autoimmune diseases of the oral cavity. 16. Tonsillar problem. Acute and chronic inflammation of throat mucosa. Throat abscesses. 17. Diseases of the tongue. Tumors of oral cavity. Tongue tumors. 18. Acute and chronic inflammation of throat mucosa. Neurogenic throat disorders. Non-infectious throat diseases. 19. Tumors of the epipharynx and mesopharynx. 20. Anatomy and physiology of the larynx. Diagnostic methods in laryngology and phoniatrics. Symptoms of larynx diseases and voice and speech disorders. Congenital malformations of the larynx. 21. Laryngeal edema. Laryngeal paralysis. Laryngeal trauma. 22. Acute and chronic inflammatory processes of the larynx. 23. Benign tumors of the larynx. Pseudo tumors of the larynx. Malignant tumors of the larynx and hypopharynx. 24. Basics of phoniatrics. 25. Foreign bodies of the laryngotracheal tree. Stenosis of the larynx and trachea. Coniotomy and tracheotomy. 26. Esophageal motility disorders. Dysphagia. Esophageal diverticulum. Injuries and foreign bodies of the esophagus. Esophageal tumors. 27. Topographic anatomy of the neck. Congenital cysts and fistula in the neck. Lymphadenitis. Neck abscesses. Neck trauma. 28. Lymph nodes in the neck. Neck lymph node metastases. 29. Anatomy and Physiology of salivary glands. Acute and chronic inflammatory processes of salivary glands. 30. Benign and malignant tumors of the salivary glands. <i>Practical education: exercises, other forms of education, research related activities</i> 1. Introduction to practical otorhinolaryngology classes. Anamnesis. 2. Working place. (head mirror, light source, the position of patients. Optical aids. Directoscopy. Microscope). 3. Examination of the nose, mouth and oropharynx, ear, larynx, neck. 4. Interventions in rhinology (extraction of foreign bodies of the nose, method of evacuation of secretions from the nose and sinuses according to Protz, Aerosol Therapy of rhinosinusitis, application of nose drops). X-ray of the nose and paranasal cavities - the interpretation of the results. 10. Stopping the nosebleed. 11. Rhinomanometry, allergy testing of patients. Patients with injuries of the nose and sinuses, reposition of nasal bones. Displaying patients with frontoethmoidal injuries. Patients with sinusogenic complications. 12. Functional endonasal sinus surgery and surgery of paranasal cavities. Patients with benign and malignant tumors of the nose and sinuses. 13. Interventions in the oral cavity and pharynx, extraction of foreign bodies. Interventions in the oral cavity and throat, incision of the peritonsillar abscess. 14. Patients with acute and chronic tonsillitis. Patients with phlegmon and neck abscess. 15. Patients with throat tumors, muscle, biopsy of the tumor in oral cavity and pharynx. Diagnostic procedures and principles of surgical treatment of patients with throat tumors. 16. Patients with facial injuries, X-ray diagnosis of parapharyngeal space tumors. Patients with salivary gland tumors. Post-operative care of patients after surgery in the region of oral cavity and maxilla. Wound/local hygiene, diet. 17. Diagnosing throat diseases, clinical diagnostics, ultrasound, X-ray diagnosis. Patients with cervical metastases. Neck dissection. 18. Rinsing foreign bodies and cerumena from external ear canal. Local therapy of ear surpuration. Management of outer and middle ear injuries, incision of otomastoma, setting the sterile strips. Paracentesis. X-Ray diagnostics of otological diseases, interpretation of basic X-ray scans. Politzer methods. Quantitative and qualitative methods for hearing evaluation. Evaluation of hearing through whispering and loud speech. Tuning fork tests (Weber, Rinne, Schwabach, Gele). Tonal audiometry, types of hearing impairments, types of audiograms. 19. Impedancemetry, Tympanometry and typical curves, stapedius reflex. 20. Examination of vestibular apparatus, orthostatic and dynamostatic tests, calorie test (Dix Hallpike), electronystagmography. 21. Directoscopy of the larynx, laringomicroscopy. Diagnostics of laryngeal and hypopharyngeal tumors. X-ray diagnosis of the diseases of the larynx and hypopharynx. Ultrasound diagnostics of the neck. Biopsy of laryngeal and hypopharyngeal tumors. 22. Treatment of acute inflammation of the larynx, inhalation therapy. Treatment of acute laryngeal edema in children and adults, subglottic laryngitis, Quincke laryngeal edema. 23. Endoscopic surgery of laryngeal tumors and pseudotumors. Surgical therapy of tumors of the larynx, post-operative care of patients after laryngectomy, nasogastric probe, tracheostoma, rehabilitation of swallowing. 24. Videostroboscopy, dysphonia treatment. Speech of patients underwent laryngectomy, laryngophone, esophageal voice and speech, vocal prosthesis. 25. Foreign bodies in the airways, diagnosis and therapy. 26. Tracheostomy, demonstration of surgical intervention, postoperative care of patients underwent tracheotomy, replacement of cannula. 27. Foreign bodies of the esophagus, diagnosis and extraction. 28. Corrosive injuries of the oral cavity, pharynx and esophagus, first aid in corrosive injuries, diagnosis and treatment of corrosive injuries, therapy of late complication of corrosive injuries of the esophagus			
Literature 1. Probst R, Grebers G, Iro H. Basic Otorhinolaryngology. Thieme, 2006.			
Number of active classes			Other:
Lectures: 30	Practice: 30	Other types of teaching: Research related activities:	
Teaching methods Theoretical lectures, seminars, practical			
Student activity assessment (maximally 100 points)			
Pre-exam activities	points	Final exam	points
Lectures	20	Written	12*
Practices	20	Oral	44
Colloquium TEST			
Essay	2x2		