

<i>Name of the course</i>	OTORHINOLARYNGOLOGY – HEAD AND NECK SURGERY			<i>Code</i>	
<i>Study programme Cycle</i>	Medical Studies in English Integrated University Study			<i>Year of study</i>	5
<i>Credits (ECTS):</i>	7	<i>Semester</i>	10	Number of hours: (L-lecture + S- seminary + P- Practical)	75 (L-25+S-10 +P-40)
<i>Status of the course:</i>	Mandatory	<i>Requirements:</i>	According to the Rulebook on Studying	<i>Comparative conditions:</i>	/
<i>Access to course:</i>	Fifth year medical students			<i>Hours of instruction:</i>	According to schedule
<i>Course teacher:</i>	Assoc Prof Boris Jelavić, MD, PhD				
<i>Consultations:</i>	As agreed with students (by phone and e-mail)				
<i>E-mail address and phone number:</i>	slav.boris@tel.net.ba; 036 / 336 - 306, - 310; - 157				
<i>Associate teachers</i>	1. Asst Prof Josip Lesko, MD, PhD, the School of Medicine University of Zagreb, the School of Medicine University of Mostar; 2. Tomislav Sušac, MD, Senior Assistant, the School of Medicine University of Mostar.				
<i>Consultations:</i>	As agreed with students (by phone and e-mail)				
<i>E-mail address and phone number:</i>	tomislavsusac@gmail.com; 036 / 336 - 306, - 157				
<i>Course objectives:</i>	<ul style="list-style-type: none"> - To provide the undergraduate medical student with adequate knowledge about causes, clinical picture, diagnostics and treatment of the pathological conditions of the ear, nose and paranasal sinuses, oral cavity, pharynx, oesophagus, larynx, trachea, thyroid and parathyroid glands, major salivary glands, and other regions of the face and neck which are an otorhinolaryngologist's area of interest. - To provide the medical student with adequate skills enabling diagnostics, first aid and basic treatment of some otorhinolaryngological problems at the level of primary practice. - To promote positive attitudes that are important for medical student in communication with patients, colleagues and co-workers in the medical field. 				
<i>Learning outcomes:</i>	<p>After attending and passing the course, the students: Plan self-study in a critical and self-critical way of investigating scientific truths. Demonstrate personality qualities (team work and personal contribution, interest, active listening and construction of positive relationships with members of the group, ability to defend their attitudes).</p>				

	<p>Describe and explain applied surgical anatomy of the organs and regions of the head and neck which are an otorhinolaryngologist's area of interest, and use this knowledge for understanding of the basics of the ENT surgical procedures.</p> <p>Describe and explain applied clinical physiology, embryology and histology and use this knowledge for explanation of pathological conditions of the head and neck which are an otorhinolaryngologist's area of interest.</p> <p>Describe and perform management at the level required for the work of a doctor in primary practice based on the acquired knowledge about etiopathogenesis, clinical picture, and diagnostics in otorhinolaryngology. Recognize, describe and use specific instruments and aids for basic diagnostic procedures to determine the state of the organs of the head and neck dealing with otorhinolaryngology.</p> <p>Demonstrate, explain and carry out the transfer of knowledge, prevention and treatment of diseases in areas of otorhinolaryngology at the level of primary practice.</p> <p>Recognize and describe ENT emergencies, describe and explain basic management, and actively perform first aid.</p> <p>Learning outcomes will be evaluated during discussions in seminars, work with patients at the Department, through colloquium (assessment of knowledge and skills adopted in the practicals) by written test relating to the ENT propedeutics and by independent performance of ENT clinical skills and interpretation of patients findings (radiologic, laboratory, pathohistological), and through final exam</p>			
Syllabus/Course content (in brief):	<p>The course is comprised of the lectures, seminars and special clinical practicals which help the student to acquire knowledge, skills and attitudes which enable him/her to perform basic education of patients and prevention, diagnostics and medical and surgical treatment of otorhinolaryngological diseases at the level of primary practice.</p>			
Type of instruction (mark in bold)	Lectures	Special clinical practicals	Seminars	Independent assignments
	Consultations	Work with mentor	Field work	Other
	<p>Remarks: Classes begin with lectures, followed by seminars and end with special clinical practicals. At seminars, the student presents a presentation on a topic or problem from a certain area for which he was assigned the first day of classes. At special clinical practicals, the student learns about the instruments and devices used to diagnose and treat diseases that are in the domain of the course. The students first learn how to use these tools on each other, and afterwards use them to examine the patients. In practices and offices of the Polyclinic and hospital infirmaries, the student assists the specialist or independently performs diagnostic procedures or therapeutic interventions with the supervision and assistance from the specialist. In operating rooms, the student is acquainted with materials, instruments, devices and procedures that are specific to</p>			

	otorhinolaryngology. The students monitor and assist on operations of the head and neck, work independently on primary treatment of less regular wounds with specialist supervision.			
Student responsibilities	Attendance and active participation in the teaching process; seminars; practical work with patients in practices, offices, infirmaries and operating rooms; preliminary exam; final exam. The students will be screened and evaluated on the basis of: <ul style="list-style-type: none"> • Active participation in seminars and special clinical practicals, • Topic or problem presentation in seminars, • Analysis of teaching texts, developing their own critical thinking about the material and the way of presenting and defending their attitude, • Cooperation in small groups on practical work in treatment of patients and patient materials during classes, • Student's knowledge on practical, written and oral of the final exam. 			
Screening and evaluation of students (mark in bold)	Class attendance	Class participation	Seminar work	Practical work
	Colloquium - Practical exam	Final exam	Continuous assessment	Essay
Detailed evaluation within the European Credit Transfer System				
OTORHINOLARYNGOLOGY – HEAD AND NECK SURGERY (7 ECTS)				
STUDENT RESPONSIBILITES	HOURS (ESTIMATE)	SHARE IN ECTS	SHARE IN GRADE	
Class attendance and participation	75	2.5	0%	
Seminar work	15	0.5	0%	
Colloquium - Practical exam (independent performance of clinical skills + written exam from ENT propedeutics)	20	0.75	0%	
Final exam	100	3.25	100%	
Students who regularly attended the classes can take the exam. Absence from practicals must be compensated. Student missing more than 20% of practicals will have to work at the ENT Polyclinic of Department of Otorhinolaryngology and Maxillofacial Surgery of University Hospital in Mostar and approach an exam with a certificate of attendance signed by an ENT specialist.				
Exam from Otorhinolaryngology-head and neck surgery consists of a colloquium - practical exam and final exam:				
A) Colloquium - assessment of knowledge and skills adopted in the practicals – a) Written test relating to the ENT propedeutics (examination methods, analysis of patient				

findings, postoperative care after ENT surgical procedures), b) Independent performance of ENT clinical skills and interpretation of patient's findings (radiologic, laboratory, pathohistological). Regular attendance on practicals (minimum 80%) and passing the practical part of the exam are conditions to take the final exam. A record in a student dossier is: passed/not passed. The practical part of the exam is recognized during the current academic year.

- B)** 1. Final exam (1st term exam) is in the form of written test (54 questions, multiple choices, one correct answer)

GRADE	CORRECT ANSWERS
excellent (5 - A)	49 - 54
very good (4 - B)	43 - 48
good (3 - C)	37 - 42
sufficient (2 - D)	30 - 36
insufficient (1 - F)	≤ 29

2. Final exam - Resit (2nd, 3rd, and 4th term exam) is in the form of oral exam (a list containing 107 examination questions is available at the course website).

Required literature:	<p>Lit1. Becker W, Naumann HH, Pfaltz CR, Behrbohm H. Ear, nose, and throat diseases with head and neck surgery. 3rd edition. Stuttgart, New York: Thieme, 2009.</p> <p>Lit2. Jelavić B, Leventić M. Clinical skills in otorhinolaryngology and head and neck surgery for medical students. Mostar, 2023.</p>
Additional literature:	<p>Lit3. Scholes MA, Ramakrishnan VR. ENT Secrets, 4th edition. Philadelphia: Elsevier, 2016.</p> <p>Lit4. ESCMID Sore Throat Guideline Group, Pelucchi C, Grigoryan L, Galeone C, et al. Guideline for the management of acute sore throat. Clin Microbiol Infect. 2012; Suppl 1:1-28.</p> <p>Lit5. Thomas M, Yawn BP, Price D, Lund V, Mullol J, Fokkens W; European Position Paper on Rhinosinusitis and Nasal Polyps Group. EPOS Primary Care Guidelines: European Position Paper on the Primary Care Diagnosis and Management of Rhinosinusitis and Nasal Polyps 2007 - a summary. Prim Care Respir J. 2008;17:79-89.</p> <p>Lit6. Brožek JL, Bousquet J, Agache I, Agarwal A, Bachert C, Bosnic-Anticevich S, et al. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines-2016 revision. J Allergy Clin Immunol. 2017;140:950-8.</p> <p>Presentations of lectures are available to students. Video presentations of skills performed on education medical models are available to students at the course website.</p>
Additional information about the	<p>Methods of monitoring the quality of the teaching process: Student survey (survey of the Medical School Mostar and survey of the Department of Diseases of the Head and Neck)</p>

course	Student-teacher quality control report Exam pass rates and results Teaching quality office report Self-evaluation and external evaluation (visits of quality control teams)
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TEACHING TOPICS

<i>Number and identification of teaching unit (L-lecture, S-seminary, P-practicals):</i>	TOPICS AND LITERATURE
ENT- L1	Title: Introduction to ENT & Head and neck surgery. A brief anatomy of the ear. Literature: Lit1
ENT – L2	Title: Physiology of hearing. Assessment of hearing. Literature: Lit1
ENT – L3	Title: Hearing impairment. Tinnitus. Literature: Lit1
ENT – L4	Title: Physiology of vestibular system. Assessment of vestibular system. Vestibular disorders. Literature: Lit1
ENT – L5	Title: Meniere's disease. Vestibular neuronitis. Ear barotrauma. Literature: Lit1
ENT – L6	Title: Inflammation of external ear. Inflammation of middle ear. Inflammation of inner ear. Literature: Lit1
ENT – L7	Title: Complications of otitis. Tumors of the ear and temporal bone. Literature: Lit1
ENT – L8	Title: Ear surgery. Cochlear implants. Literature: Lit1
ENT – L9	Title: Nose and paranasal sinuses: applied embryology, anatomy, physiology. Deformations of the nasal septum and pyramid. Septoplasty, rhinoplasty. Literature: Lit1
ENT – L10	Title: Methods of assessment of the nose and paranasal sinuses. Radiologic assessment of the nose and paranasal sinuses. Cutaneous lesions of the external nose; surgical treatment. Tumors of the nasal cavity, paranasal sinuses end nasopharynx. Literature: Lit1
ENT – L11	Title: Injuries of the nose. Foreign bodies in the nose. Inflammation of nasal skin. Literature: Lit1
ENT – L12	Title: Epistaxis. Infectious rhinitis. Non infectious rhinitis. Literature: Lit1, Lit5
ENT – L13	Title: Acute rhinosinusitis. Chronic rhinosinusitis. Nasal polypi. Antrochoanal polyp. Literature: Lit1, Lit4
ENT – L14	Title: A brief anatomy of the pharynx. Tonsillar problem. Adenoids. Literature: Lit1
ENT – L15	Title: Adenotomy, tonsillectomy: indications, basic principles of surgery. Literature: Lit1
ENT – L16	Title: Acute and chronic inflammation of the pharynx and larynx. Literature: Lit1
ENT – L17	Title: Benign and malignant tumors of the pharynx. Benign tumors of the larynx. Literature: Lit1
ENT – L18	Title: Diseases of major salivary glands (sialoadenitis, sialolithiasis, tumors). Basic principles of surgical treatment. Literature: Lit1
ENT – L19	Title: The crossing of the respiratory and the digestive tracts. Benign lesions of the vocal cords. Vocal cord paralysis. Injuries and stenosis of the larynx. Literature: Lit1

ENT – L20	Title: Laryngopharyngeal reflux. Foreign body in the larynx and trachea. Foreign body in the bronchus and oesophagus. Literature: Lit1
ENT – L21	Title: Malignant tumors of hypopharynx and larynx. Basic principles of surgical treatment. Neck dissections. Voice rehabilitation following total laryngectomy. Literature: Lit1
ENT – L22	Title: A neck lump. Neck cyst. Head and neck lymphoma. Head and neck hemangioma. Literature: Lit1
ENT – L23	Title: Deep neck space infections. Metastatic neck tumors of unknown primary origin. Literature: Lit1
ENT – L24	Title: Surgery of the thyroid gland. Literature: Lit1
ENT – L25	Title: Surgery of the parathyroid gland. Literature: Lit1
ENT – S1	Title: Early detection of profound hearing loss and deafness. Literature: Lit1
ENT – S2	Title: Emergency conditions in rhinology.. Literature: Lit1, Lit2
ENT – S3	Title: 1. EP3OS- European Position Paper on the Primary Care Diagnosis and Management of Rhinosinusitis and Nasal Polyps. 2. ARIA guidelines. Literature: Lit5, Lit6
ENT – S4	Title: Inspiratory stridor: differential diagnosis, treatment. Coniotomy, tracheostomy. Literature: Lit1
ENT – S5	Title: The European Society for Clinical Microbiology and Infectious Diseases: Guideline for the management of acute sore throat Literature: Lit4
ENT – S6	Title: Hemorrhage in otorhinolaryngology. Literature: Lit1
ENT – S7	Title: Foreign bodies in otorhinolaryngology.. Literature: Lit1
ENT – S8	Title: Endoscopy in otorhinolaryngology. Surgical treatment of snoring. Literature: Lit1
ENT – S9	Title: Division of the Neck into Levels and Sublevels (according to Memorial Sloan-Kettering Cancer Center). Literature: Lit1, Lit2
ENT – S10	Title: Esthetic surgery in otorhinolaryngology: auriculoplasty, rhytidectomy, blepharoplasty. Literature: Lit1
ENT – P1	Title: ENT working place. Use of a head mirror and head light.. Literature: Lit1, Lit2
ENT – P2	Title: Instruments for head and neck examination. Literature: Lit1, Lit2
ENT – P3	Title: Otoscopy. Ear toilet procedure. Literature: Lit1, Lit2
ENT – P4	Title: Anterior rhinoscopy. Literature: Lit1, Lit2
ENT – P5	Title: Posterior rhinoscopy. Epistaxis: instruments and materials for anterior and posterior nasal packing. Literature: Lit1, Lit2
ENT – P6	Title: Oropharyngoscopy. Literature: Lit1, Lit2
ENT – P7	Title: Indirect laryngoscopy procedure. Literature: Lit1, Lit2
ENT – P8	Title: Anamnesis in otology, work in he ENT office. (2 hours) Literature: Lit1, Lit2
ENT – P9	Title: Anamnesis in rhinology, work in he ENT office. (2 hours) Literature: Lit1, Lit2
ENT – P10	Title: Anamnesis in pharyngology, work in he ENT office. (2 hours) Literature: Lit1, Lit2
ENT – P11	Title: Anamnesis in laryngology, work in he ENT office. (2 hours)

	Literature: Lit1, Lit2
ENT – P12	Title: Acumetry. Hearing aids. Legal rights of hearing-impaired patients. Literature: Lit1, Lit2
ENT – P13	Title: Audiology Unit. Pure tone audiometry. Tympanometry. Early detection of deafness. Literature: Lit1, Lit2
ENT – P14	Title: Vestibulology Unit. Vestibulometry (caloric test, rotational test). Literature: Lit1, Lit2
ENT – P15	Title: Unit for ENT endoscopy. Rigid and flexible endoscopes in ENT. Otomicroscopy. Literature: Lit1, Lit2
ENT – P16	Title: Work in the ENT ward and Wound Care Unit. (9 hours) Literature: Lit1, Lit2
ENT – P17	Title: Tracheal cannula: types, toilet, change. Care of patient with tracheostomy tube. Literature: Lit1, Lit2
ENT – P18	Title: Imaging in ENT: Ultrasound, X-rays, CT, MRI. A presentation of normal and pathologic radiologic findings. Literature: Lit1, Lit2
ENT – P19	Title: Specificities of the ENT operating theater. Equipment for microlaryngoscopy, rigid oesophagoscopy, and tracheobronchoscopy. Work in the ENT operating theater. (5 hours) Literature: Lit1, Lit2
ENT – P20	Title: Practical skills in ENT: student performs examination by itself. (5 hours) Literature: Lit1, Lit2