COURSE UNIT DESCRIPTION

Course unit title	Code
Maxillofacial surgery	BCHI3615

Lecturer(s)	Department(s)
Coordinating: assoc. prof. Linas Zaleckas Others: assoc. prof. Ieva Gendvilienė, assoc.prof. Rūta Rastenienė, teaching assist. Milda Vitosytė, assist. prof. Alina Čebatariūnienė Otorinolaringology - Prof. dr. Eugenijus Lesinskas, assoc. prof. dr. Mindaugas Petrulionis, assoc. prof. dr. Justinas Ivaška; asist. dr. Darius Rauba, asist. dr. Vilma Beleškienė, lekt. Andrius Matulevičius, lekt. Arnoldas Morozas	Centre of Oral and Maxillofacial Surgery Vilnius University Faculty of Medicine, clinic of Ear, Nose, Throat and Eye diseases.

Cycle	Level of the course unit	Type of the course unit
Full time studies	1 of 2	Compulsory

Mode of delivery	Period of delivery	Language of instruction
Face-to-face	VIII semester;	English

Prerequisites and corequisites	
Prerequisites: The student must have listened to subjects, performed practical work and fulfilled the requirements: human anatomy, human histology, human physiology, basics of human biology and genetics in dentistry, basics of microbiology; oral ecosystem, public and oral health, Latin and specialty language, basics of pathology, propaedeutic of internal diseases and internal diseases, basics of radiology: general and dental radiology, pharmacology: clinical pharmacology, laboratory medicine, basics of diagnostics and treatment of dental and oral diseases, orthopedic basics of dentistry, anesthesiology and resuscitation; first aid, oral surgery, basics of neurology, basics and preparation of research work, oral surgery	**Corequisites (if any):**

Number of ECTS credits allocated to the course unit	Total student's workload	Contact hours	Self-study hours
5	134	80	54

Purpose of the course unit Program competences to be developed
The aim is to provide the student of dentistry with knowledge and to develop the ability to diagnose congenital developmental defects and acquired defects in the face and jaw area, to plan treatment, to develop the skills of working in an interdisciplinary team and to strive for professional development throughout the professional career. Ear, nose and throat diseases - to introduce dental students with the principles of etiology, pathogenesis, clinic, diagnosis and treatment of programmatic otorhinolaryngological diseases, the principles of emergency care for ear, nose and throat inflammation, allergic conditions, cancers and injuries. To learn the principles of performing and evaluating otoscopy, rhinoscopy, pharyngoscopy and laryngoscopy, to distinguish the norm from pathology and timely refer for treatment of a specialist.

Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Will be able to communicate with patients and his family irrespective of their social and cultural background, to give comprehensive information about peculiarities of diagnostics, treatment methods and prophylaxis in the cases of congenital anomalies and acquired defects in maxillofacial area.	Lectures, seminars in small groups. Analysis of clinical situations. Self-study Consultations Clinical work with patients, practices in the hospital departments, Discussion in groups. Searching of scientific information	Writing tasks during seminars. Questions and answers during discussion in groups Examination at the end of the semester (closed-ended, multiple choice and open questions Assessment of clinical case – patient's medical history
Will acquire knowledge in the collaboration of multidisciplinary team, which ensure the diagnostics in the cases of congenital anomalies in maxillofacial area.		
Will be able to acquire and use information from library and other databases in the field of congenital anomalies and acquired defects in maxillofacial area and display the ability to use this information in a critical, scientific and effective manner.		
Will be able to obtain and record a complete medical and dental history of the patients; to examine the patients with congenital anomalies and acquired defects in maxillofacial area, to interpret the findings		
Will be able to recognize and to assess congenital anomalies and acquired defects in cranial and maxillofacial area, will acquire basic knowledge about the treatment		
Will acquire knowledge about fundamental facial tissues reconstruction methods		

Ear, Nose and Throat diseases

Act honestly and adhere to ethical obligations; be empathetic; be able to think critically and self-critically; be creative; proactive, able to achieve the goal; be able to communicate with other people	Exercises in the auditorium, ear, nose, throat diseases operating room, department, consulting polyclinic, research rooms	Continuous evaluation of exercises in the auditorium, ear, nose, throat diseases operating room, ward, consulting polyclinic, research rooms
Assess the limits of own competencies and, if necessary, seek for a help; solve problems and make decisions; to communicate and work in a team together with specialists and experts in other in other fields of sciences.		
To know the basics of clinical and surgical anatomy of ears, nose, mallards, throat, physiology of hearing, breathing, smell, language. Be able to relate the features of anatomy and their influence on the clinical course of the disease, the influence of the etiopathogenesis of diseases on physiology and its changes. To evaluate the relationship between otorhinolaryngology and dentistry. To know the history of otorhinolaryngology	Exercises in the classroom. Students learn research methods by inspecting each other, under the supervision of a lecturer, examining mock-ups, schemes, posters, studying literature	Continuous evaluation of exercises in the auditorium, department of ear, nose and throat diseases, research rooms, consulting polyclinic. Written test at the end of the subject.
To learn basic examination methods of ear, nose, mallard, throat organs. Evaluate and distinguish normal appearance from pathology. To be able to perform otoscopy, rhinoscopy, pharyngoscopy, laryngoscopy. To know and be able to evaluate the methods of hearing, breathing, voice, smell, to evaluate radiological examinations of ENT organs.	The practice in the classroom, students learn research methods by inspecting each other and evaluating normal ENT organs, examining mock-ups, schemes, posters. Examination of patients by participating in the examination rand treatment planning of the patient in the	

	department of ear, nose and throat diseases, consultation outpatient clinic and examination rooms. Consultations (answers to questions, discussion)	
Understand the relationship of ear, nose, throat diseases with diseases of other organs, especially pathology of oral organs. To evaluate the worsening of ear, nose and throat diseases in other diseases of the body. Learn the principles of urgent otorhinolaryngology, be able to assess the patient's condition in urgent otorhinolaryngological situations: bleeding, respiratory failure, unspecified laryngeal stenosis. Provide emergency medical care, resuscitation be able to maintain vital functions in accordance with current European standards.	The lectures provide theoretical material (traditional form with elements of dialogue, using slides, schemes, posters). Exercises in the classroom. In the department of ear, nose and throat diseases, in the consulting polyclinic. The student must be able to correctly assess the critical condition of the patient, provide emergency medical care	Continuous evaluation of exercises in the auditorium, department of ear, nose and throat diseases, research rooms, consulting outpatient clinic. Evaluation of filling in medical documents, evaluation of student reports prepared according to the latest literature reviews.
Understand the etiology, pathogenesis, clinic, diagnosis, differential diagnosis, medical and surgical treatment, complications, prevention of congenital and acquired diseases of the outer, middle, inner ear (inflammation, trauma, tumors, other etiologies)	Exercises in the classroom. Radiological examinations of patients are examined in the Department of Ear, Nose and Throat Diseases, in the operating and consulting polyclinic. Observation of the operations through the monitor and live in the operation theater.	
To know about congenital, acquired (inflammations, traumas, tumors, other etiologies) diseases of the nose and sinuses: etiology, pathogenesis, clinic, diagnostics, differential diagnosis, medical and surgical treatment, complications, prevention. To evaluate the association of sinus diseases with dental diseases. Differential diagnosis of diseases of the face and jaws. Tactics for treatment of combined injuries in ENT region.		
To know about the etiology, pathogenesis, clinic, diagnosis, differential diagnosis, surgical treatment and medications, complications, prevention, connection with dental pathology of congenital, acquired diseases of the throat and larynx (inflammation, trauma, tumors, other etiologies)		

Topics	Contact work hours							Time and tasks of self-study	
	Lectures	Consultations	Seminars	Practice	Laboratory work	Practical training	**Total contact**	**Self-study**	**Tasks**
1. Normal and abnormal facial development.	1			2			**3**		
2. Cleft lip and palate. Alveolar clefts. Secondary and corrective operations for cleft patients.	3			7			**10**	**8**	To prepare and to present academical clinical case of patient with congenital anomalies or acquired defects in maxillofacial area - obtaining and recording a complete medical and dental history of the patients; to examination of the maxillofacial condition of patients, interpretation of findings and x-ray, prescription of further investigations when necessary; diagnosis and differential diagnosis, creation of treatment plan.
3. Plastic and reconstructive surgery in maxillofacial area. Local flaps in facial reconstruction. Skin grafting. Esthetic and cosmetic surgery in maxillofacial area. Importance of contact and mutual understanding between patient and doctor in esthetic surgery.	2			5			**7**	**8**	Review of literature and paper presentation about esthetic and cosmetic surgery in maxillofacial area.
4. Reconstruction of facial soft tissues and bones. Microsurgical methods in reconstructive maxillofacial surgery.	2			5			**7**		
5. Syndromes in maxillofacial surgery. Distraction osteogenesis. Hemangiomas and vascular malformations	2			4			**6**	**6**	Prepare paper about one of the syndromes in maxillofacial area
6. Introduction to orthognathic surgery. Skeletal anomalies – diagnosis, treatment planning and preparation to the operation Principles of surgical treatment of dysgnathias.			2	6			**8**	**6**	Prepare a presentation on the relationship between orthognathic surgery and orthodontics by analyzing a specific clinical case
7. New methods in maxillofacial surgery. Craniosynostosis – principles of treatment (cranioplasties).	2			3			**5**		
Total	12		2	32			**46**	28	

1 Goals and tasks of Otorhinolaryngology, connection with other specialties. Clinical-topographic anatomy of the outer and middle ear	-	-	1	1	-	-	**2**	**2**	Self preparation of the anatomy of the outer and middle ear. Students learn research methods by looking at each other. Analysis of schemes, posters and mock-ups, analysis of the latest literature
2. Methodology of examination of external and middle ear: anamnesis, inspection, palpation, otoscopy. Tuba auditiva traversal function study. Probing the drum cavity	-	-	-	1	-	-	**1**	**2**	Prepare for exercises on outer and middle ear examination methods. Students learn research methods by looking at each other. Analysis of schemes, posters and mock-ups, analysis of the latest literature
3. Clinical-topographic anatomy and physiology of the nasal and sinus cavities, pharynx. Endoscopic examination methods. Rhinoscopy, pharyngoscopy. ENT organ radiography	-	-	-	1	-	-	**1**	**2**	Self-preparation of anatomy of the nasal and sinus cavities, endoscopic examination methods, rhinoscopy, pharyngoscopy, radiography. Students learn research methods by looking at each other. Examination of sinus x-rays.
4. Methods of examination of the nose, sinuses and pharynx. Endoscopy, rhinoscopy, pharyngoscopy.	-	-	-	1	-	-	**1**	**8**	Be ready for exercises on the anatomy of the nasal and sinus cavities, endoscopic examination methods, rhinoscopy, pharyngoscopy, ENT radiography. Students learn research methods by looking at each other. Examination and examination of patients
5. Clinical-topographic anatomy, physiology and research methods of the larynx. Endoscopy, laryngoscopy, video laryngesscopy	-	-	-	1	-	-	**1**	**2**	Prepare for exercises on laryngeal anatomy, physiology and laryngeal examination methods. Students learn research methods by looking at each other

6. Inner ear: snail and vestibular apparatus. Micro and macro anatomy of the ear. Physiology of the vestibular apparatus. Hearing examination: hearing passport. Audiological examination. Examination of the vestibular apparatus	-	-	-	1	-	-	**1**	**2**	To prepare for exercises on micro and macro anatomy of the inner ear, physiology of the vestibular apparatus. Audiological examination, examination of the vestibular apparatus. Students learn research methods by looking at each other. Work in an audiological office. Examination and evaluation of audiograms
7. *Otitis externa*. *Otitis media acuta (catarrhalis et purulenta)*. Mastoiditis	2	-	-	1	-	-	**3**	**1**	Prepare for exercises on external, middle purulent otitis, serootitis. Examination of patients. Evaluation and critical reading of medical literature.
8. *Otitis media chronica*, intracranial complications of ear diseases. Principles of ear surgery.	2	-	-	1	-	-	**3**	**1**	Prepare for exercises on chronic aticoantral and tubotympanic otitis. Examination of patients. Theoretical knowledge is assessed by examining patients, observing procedures and operations.
9. Neurosensory hear loss, otosclerosis, Meniere's disease, labyrinthitis.	2	-	-	1	-	-	**3**	**1**	To prepare for exercises on neurosensory arousal, otosclerosis, Meniere's disease. Examination of audiograms
10. Acute and chronic pharyngitis, tonsillitis. Differential diagnosis of throat pain.	2	-	-	1	-	-	**3**	**1**	Prepare for exercises on acute and chronic pharyngitis, tonsillitis, other pharyngeal diseases. Examination of patients, monitoring of medical records
11. Chronic tonsillitis, peritonsillar and parapharyngeal abscess.	2	-	-	1	-	-	**3**	**1**	Prepare for exercises on chronic tonsillitis, paratonsilitis, parapharyngeal abscesses. Examination of patients. Observation

									of clinical work.
12. Acute and chronic laryngitis. Voice diseases. Scleroma. Laryngeal TB, diphtheria. Benign and malignant tumors of the larynx.	2	-	-	1	-	-	**3**	**1**	To prepare for exercises on laryngeal diseases and their differential diagnosis. Examination of medical documentation, observation of live surgery's.
13. Acute and chronic rhinitis. Difficulty's in breathing through the nose.	-	-	-	1	-	-	**1**	**2**	Prepare for exercises on acute and chronic rhinitis. Medical documentation analysis, observation of consultations and live operations.
14. Acute and chronic sinusitis. Intra-orbital and intracranial complications.	2	-	-	1	-	-	**3**	**2**	Prepare for exercises on acute and chronic sinusitis. Intra-orbital and intracranial complications. Medical documentation analysis, observation of consultations and live operations.
15. *Epistaxis*. Etiology and treatment.	-	-	-	1	-	-	**1**	**2**	Prepare for main reasons of nasal bleeding. Teaching how nasal tamponade is performed.
16. Urgent otorhinolaryngology. Allergic diseases	2	-	1	1	-	-	**4**	**2**	Prepare for an exercise on the topic of urgent ENT pathology. Examination of medical documentation, observation of live patient consultations.
Total	**16**	**-**	**2**	**16**	**-**	**-**	**34**	**26**	

Assessment strategy Ear, Nose and Throat diseases	**Weight**	**Assessment period**	**Assessment criteria**
Exam at the end of the semester	100%	During examination session	Exam consist of 3 theoretical open questions evaluated 10 points each (60% of accumulative assessment), 20 test questions assessed 1 point each, maximal point 20 (40% of cumulative assessment) Maximal points 50. Total evaluation: **10: excellent knowledge ≥ 47 points.** **9: very good knowledge, some not critical mistakes 42-46 points.** **8: good knowledge some not critical mistakes 37-41 points.** **7: satisfactory knowledge and skills, some mistakes 32-36 points.**

			6: week, lot of mistakes 27-31 points. **5: very week. Knowledge and skills still meet the requirements. There are fundamental mistakes. 22-26 points.** **Failed ≤ 21.**

Assessment strategy Maxillofacial surgery	**Weight (%)**	**Assessment period**	**Assessment criteria**
Accumulative assessment **(all components of the cumulative score must be passed above score 5)** Obligatory attendance of seminars and practice			
4 Tests	60%	During semester	The test consists of open-ended questions or a clinical situation or definition. The test is carried out during the practice, at least 1 week after the lecture corresponding to the test questions. Students are introduced to the subject of written tests and lectures in advance. The overall test score is written by summing up the points of the individual questions and dividing it by the number of questions. The minimum passing score for each test is 5. Failed tests are allowed to be retaken once during the semester. The total score of the test is written at the end of the semester, summing up the average of all the test scores performed and dividing it by the number.
Presentation/literature review	10%		• clarity of ideas, quality of arguments (2 points); • structure of essay (2 points); • style and quality of scientific language (2 points); • quality (valid and reasonable) of conclusions (2 points). • visual quality of material presented (2 points). A presentation is prepared on given topic. Teacher assesses presentation/ review and it is presented in the cyberspace. The final score is written at the end of the semester as an average score of all essays prepared.
Assessment of practical work	30%		Assessment methods and minimal requirements of practical work please find in the attachment To observe oral and maxillofacial surgeons work during duties in emergency room. To get the signature of the surgeon.
Exam (must be passed above 5 points)			
Test	100%	During examination session	Closed-ended and open - ended questions. 50% type I, one correct answer from 4, 40% type II, 2-3 correct answers from 5, 10% type III clinical situation or description. Every answer is evaluated 0 or 10 points. Total points for test: the sum of all points divided from number of questions. Examination is considered to be passed if correct answer is given to 50%. and more questions. 91-100 percent - 10 points (excellent); 81-90 percent - 9 points (l. Well); 71-80 percent - 8 points (good); 61-70 percent - 7 points (average); 56-60 percent - 6 points (satisfactory); 50-55 percent - 5 points (weak);

			41-49 percent - 4 points (unsatisfactory); 31-40 percent - 3 points (unsatisfactory); 21-30 percent - 2 points (unsatisfactory); 11-20 percent - 1 point (unsatisfactory); 0-10% - 0 points (not rated).
Final assessment			
Exam in maxillofacial surgery Exam in Ear, Nose and Throat diseases .	60% 40%	During examination session	Final score in basics of facial and maxillofacial surgery Score at the end of the exam semester

Author	Year of publication	Title	No of periodical or vol. of publication	Publication place and publisher or Internet link
Required reading				
J. Olekas (editor)	2008	Veido, žandikaulių ir burnos chirurgija (Oral and maxillofacial surgery), p. 30-75, 229-270, 594-697		Vilnius
R. Almonaitienė, R. Rizgelienė, J. Tutkuvienė	2008	Veido, žandikaulių ir dantų raida (Maxillofacial and teeth developing)		Vilnius, „Progretus“
Olekas J.	1998	Įgimti lūpos nesuaugimai (congenital cleft lip).		Vilnius
Recommended reading				
W.R.Proffit	2002	Contemporary ortodontics		Mosby
				www.emedicine.com
J. Olekas (sudarytojas)	2008	Veido, žandikaulių ir burnos chirurgija p.30-34, 72-75, 229-270, 594-697.		Vilnius
R. Almonaitienė, R. Rizgelienė, J. Tutkuvienė	2008	Veido, žandikaulių ir dantų raida		Vilnius, „Progretus“
H. Kuokkanen , H., H. HomstrÖm, F. E. Åbyholm , K. T. Drzewiecki (redaktoriai)	2016	Skandinavijos plastinė ir rekonstrukcinė chirurgija (Scandinavian Plastic Surgery) p.1 – 166, 189 – 228, 247-261, 275 – 369		Vilnius, „Alio“
Olekas J.	1998	Įgimti lūpos nesuaugimai.		Vilnius
E. Lesinskas	2014	Ausų, nosies ir gerklės ligos		Vilnius „Vilniaus universiteto leidykla“
W.R.Proffit	2002	Contemporary ortodontics		Mosby
J.Losee, R. Kirschner	2008	Comprehensive Cleft Care		McGraw-Hill Professional
				www. clinicalkey.com
				www.emedicine.com
S. Berkowitz.	2013	Cleft Lip and Palate: **D**iagnosis and Management		Springer; 3rd edition
Susiję straipsniai iš Vilniaus universiteto bibliotekos:		http://www.mb.vu.lt/istekliai		
E. Lesinskas	2006	Vidurinės ausies cholesteatoma		Vilnius „Vilniaus universiteto leidykla“
A. Kišonas, K. Povilaitis, V. Kinduris, V. Uloza	1994	Ausų, nosies, gerklės ligos		Kaunas, Danielis