University of Rijeka, Faculty of Medicine

Curriculum
2023/2024

Compulsory course

Maxillofacial Surgery and Dentistry

Study programme:	**Medical Studies in English**
Department:	**Katedra za maksilofacijalnu kirurgiju**
Course coordinator:	**prof. dr. sc. Belušić-Gobić Margita, dr. med.**
Year of study:	**5**
ECTS:	**2.00**
Incentive ECTS:	**0.00 (0.00%)**
Foreign language:	**Possibility of teaching in a foreign language**

Course information:

Maxillofacial Surgery and dentistry is a compulsory course in the 5th year of the Integrated undergraduate and graduate university study of Medicine in English. It consists of 22 hours of lectures and 10 hours of practicals, totaling 32 hours (2 ECTS). The course is conducted in the Clinic of Maxillofacial Surgery (hospital, outpatient clinic at the polyclinic, operating rooms of the Clinic), while lectures are held in the large lecture room at Sušak.

The aim of the course is to get students acquainted with the specifics of maxillofacial surgery, a surgical branch that deals with the treatment of diseases of the mouth, jaw, face and certain pathological conditions of the head and neck. The aim is to familiarize the students with the most common diseases, their clinical features, the basics of diagnostics, treatment options, complications during and after surgery, the basics of patient monitoring and control systems, medical record keeping. In addition to the acquisition of basic theoretical knowledge, special emphasis is placed on training students to perform a proper physical examination of a maxillofacial patient, to identify differences between physiological and pathological conditions, correct medical conclusions about differential diagnostic possibilities, i.e. everything that every physician encounters and needs to know in practice. The emphasis is on the quality of physical examination, especially in the early detection of tumors and the consequences of delays in diagnosing this functionally and aesthetically significant region of the human body.

Course content: Introduction to the surgical anatomy of the maxillofacial region, clinical and radiological diagnostics. Traumatology; emergencies in head and neck injuries, examination and treatment of the injured patient, etiology, frequency and clinical features of head and neck soft tissue injuries, and specificities of surgical treatment. Fractures and treatment of viscerocranial bones – lower jaw, bones of the middle third of the face (upper jaw, facial bone, orbit), the upper third of the face (fronto-naso-orbitoethmoidal fractures), injuries associated with neurocranial fractures. Functional and aesthetic complications after delayed or inadequate treatment. Introduction to the dentoalveolar segment in children and adults. Basics of dental medicine relevant to medical students. Inflammation in the jaw and face (odontogenic and other nonspecific and specific inflammations) and complications. Salivary glands diseases. Head and neck tumors; tumors of the skin, lips, oral cavity and oropharynx, paranasal cavities, metastatic progression, treatment and reconstruction options of postoperative defects. Deformities (skeletal, dentofacial, and other deformities). Malformations (cleft lip and/or palate and other congenital malformations). Introduction to temporomandibular joint disorders. Orofacial pain (differential diagnostics).

Course teaching: Classes are conducted through lectures and practicals. Lectures cover theoretical knowledge, whereas practicals allow students to experience practical work with patients under the supervision of assistants. Practicals are taught in small groups during the morning clinical shift. After classes are finished, students take a written test, which is a prerequisite for taking the final, oral exam. By completing all course activities and taking the mandatory written test and final exam, the student acquires 2 ECTS credits.

List of assigned reading:

1. Ivica Lukšić et al. Maksilofacijalna kirurgija, Ljevak, Zagreb, 2019.

2. Carrie Newlands, Cyrus Kerawala, Oral and Maxillofacial Surgery (Oxford Specialist Handbooks in Surgery) 3rd, Oxford University Press; 3rd edition, December 30. 2020. Selected chapters: Trauma, Oral cavity and oropharyngeal cancer, Surgical dermatology, Salivary glands, Orthognathic surgery, Cleft lip and palate, The temporomandibular joint.

3. Jatin Shah, Snehal Patel, Bhuvanesh Singh, Richard Wong. Jatin Shah's Head and Neck Surgery and Oncology 5th Edition, Elsevier, April 2019. Selected chapter: Chapter 5 (Nasal cavity and paranasal sinuses).

4. Lectures are available to students in digital form on the Department’s website: Professor Margita Belušić-Gobić: “Oral and Oropharyngeal Cancers“ Professor Mirna Juretić: “Differential Diagnosis of Orofacial Pain“ Professor Mirna Juretić: “Head and Neck Skin Cancers: Surgical Treatment“

List of optional reading:

1. Aljinović-Ratković N., Traumatologija maksilofacijalne regije, teacher-made instructional materials, Zagreb, 2001.

2. Virag M., Disekcija vrata: logika i klasifikacija. Medicinar 40 (suppl. 1); 45-50, 1999.

3. Virag M., Deset predrasuda i nešto više činjenica o melanomu. Medicinar 45(3); 14-18, 2004.

4. Teacher-made instructional materials „Osnove kirurških šavi i lokalnih režnjeva“, Medicinski fakultet Sveučilišta u Zagrebu, 2002.

5. Drago Prgomet et al., Tumori glave i vrata, Medicinska naklada, Zagreb, 2019.

6. Bagatin M., Virag M. et al.: Maksilofacijalna kirurgija, textbook, Školska knjiga, Zagreb, 1991.

Curriculum:

Predavanja list (with titles and explanation):

L1. Introduction to maxillofacial surgery Introduction to traumatology in MFS Introduction to tumors of the maxillofacial region

To familiarize with the subject of maxillofacial surgery. To acquire basic knowledge about examining patients with pathological conditions of the oral cavity, face, and neck and the basics of diagnostic methods. To classify tumors, histological types, etiology and epidemiology. To explain the TNM classification. To identify and explain the metastasis of tumors of the maxillofacial region. To identify and explain lymphogenic metastasis. To define neck regions. To explain the importance of surgical treatment of lymphogenic metastases of the neck. To describe neck dissection. To explain, as part of the introduction to traumatology, the concept of life-threatening injuries in the face and mouth. To familiarize with the soft tissue injuries of the face, oral cavity, and neck.

L2. Skin and lip tumors

To explain the etiology, epidemiology, and most common histological types of malignant head and neck tumors. To explain and describe the most common clinical features of basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) of the skin. To explain the specificities of TNM classification of skin tumors. To explain the principles and basic surgical methods of skin tumor treatment. To explain the important characteristics of malignant melanoma. To explain the differences between malignant melanoma (MM) in relation to BCC and SCC. To explain the histological classification of MM. To explain the metastasis of MM. To explain the diagnostic algorithm for MM. To define “misconceptions” about MM. To define lip tumors, describe the clinical features, diagnostics. To describe the basic methods and indications of surgical treatment of wedge excision and vermilionectomy. To explain the TNM classification of lip tumors. To explain the metastasis of lip (lower and upper) tumors. To explain the basics of reconstructive methods used for postoperative defects.

L3. Oral and oropharyngeal tumors Paranasal (maxillary sinus) tumors

To explain the term precancerous lesions, especially erythroplakia. To define the etiology, epidemiology, and histological types of tumors. To explain the difference between oral and oropharyngeal tumors. To explain the TNM classification and metastasis of these tumors. To explain the symptomatology of tumors according to anatomical localization in the oral cavity and oropharynx. To describe the principles of surgical treatment depending on the stage of malignant disease. To explain the term “commando” procedure. To explain and describe malignant maxillary sinus tumors and their spread into the surrounding tissue (their symptomatology depending on the direction of tumor spread). To explain the basics about the difficulties of sinus tumor treatment. To explain the poor prognosis of paranasal tumors.

L4. Reconstructive surgery

To explain the basics of reconstruction of oncological defects with flaps To explain the difference between a free skin graft (FSG) and a flap. To classify lobes according to the type of tissue, blood supply, and lobe location. To classify grafts according to origin and type of graft.

L5. Nontumor and tumor salivary gland diseases

To list the most common nontumor salivary gland diseases. To explain the methods of salivary gland diagnostics. To explain the etiology and symptoms of salivary gland inflammation and differentiate the symptoms in acute conditions from subchronic to chronic. To explain the causes and symptoms of sialolithiasis and to define diagnostic and treatment methods. To explain the specificities of autoimmune salivary gland diseases and the importance of clinical monitoring. To define epidemiological differences in benign and malignant tumors of minor and major salivary glands. To define the most common histological types of major salivary gland tumors. To explain the difference between the clinical features of benign and malignant parotid gland tumors. To explain the surgical treatment methods of major salivary tumors.

L6. Soft-tissue injuries of the head and neck Traumatology – mandibular fractures

To familiarize with the soft tissue injuries of the face, oral cavity, and neck. To explain the basic features of mandibular fractures. To define the clinical features/symptoms of fractures, classification of fractures, and basic treatment methods.

L7. Traumatology – fractures of the middle and upper third of the face

To explain the classification of fractures according to the affected bones of individual layers of the face. To define the

characteristics of clinical features of facial, orbital, NOE, FOND, and panfacial fractures. To explain the basic treatment methods for a particular fracture.

L8. Inflammation in the maxillofacial region

To define odontogenic inflammation and explain its etiology, classification, and clinical features. To describe the routes and modes of spreading through the anatomical head and neck spaces. To explain surgical and pharmacological treatment methods. To explain and describe the complications of odontogenic inflammation: mediastinitis, propagation of inflammation into the orbit and endocranium. To explain the causes of osteomyelitis, its clinical features and treatment.

L9. Temporomandibular joint disorders Orofacial pain / Differential diagnosis of painful head and neck conditions

To classify temporomandibular disorders and clinical symptomatology. To explain treatment methods. To explain arthroscopy in diagnostics and treatment. To explain the terms arthrocentesis and arthroscopy. To describe orofacial pain and diagnostic problems. To explain the most common manifestations of painful head and neck conditions. To describe trigeminal neuralgia – symptomatology, classification, drug and surgical treatment. To describe the differential diagnosis of pain in the oral cavity, head, and neck.

L10. Deformities and malformations

To explain the differences between deformities and malformations. To classify deformities, list them, and describe the most common ones. To define orthognathic surgery and its basic principles (treatment methods, the importance of a team approach). To explain the term malformation, the basics of its clinical features, and the term “congenital disorder”. To define and classify clefts. To explain the treatment algorithm for clefts and the importance of a team approach to treatment of clefts. To explain the concept of “microform” clefts and complications in case they are not recognized. To explain the basic surgical techniques for cleft lip and palate treatment.

L11. Dental medicine for medical students

To explain the basic concepts of dentistry and the activities of individual dental specialties. To explain the reasons for establishing a medical team in case of certain pathological conditions, which are, in addition to surgeons, also comprised of dental specialists. To define occlusion, articulation, and disorders (basics of gnathology). To recognize dental notation according to quadrants

Vježbe list (with titles and explanation):

P1 Medical history, examination of the oral cavity, face and neck, History-taking, clinical examination, X-ray examination of injured patients

.

P2 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, Consideration (examination and theoretical) of differential diagnostics of cervical nodes

.

P3 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, inspection and examination of salivary gland functions (diff. dg.)

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Student obligations:

Students are required to attend all practicals regularly.

Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, grading criteria):

Evaluation (ECTS credit system):

Student grading is conducted according to the current Ordinance on Studies of the University of Rijeka and the Ordinance on Student Assessment and Evaluation at the Faculty of Medicine in Rijeka (approved by the Faculty Council).

Students are graded according to the ECTS (A–E) and numerical system (1–5).

Out of a total of 100 grade points (100%), the student can obtain a maximum of 50% of grade points during classes and a maximum of 50% of grade points on the final oral exam.

There are no colloquia to assess student knowledge during classes. After classes are finished, students take a written test, which is a prerequisite for taking the final oral exam. The student can obtain a maximum of 50 grade points on the test, with the required level of 50% of solved questions for passing the test, i.e. at least 25 points. The prerequisite for taking the final oral exam is obtaining a minimum of 25 grade points during classes (provided that the test is passed with 50% correct answers, i.e. 20 points on the test).

After passing the oral examination, the final grade is formed by adding up the points obtained during classes and the points obtained on the oral exam.

Written test (maximum 50 grade points)

After attending classes (lectures and practicals), the student acquires grade points by taking a test consisting of 60 questions. The pass threshold (sufficient) is 50% (30) correct answers and the student can obtain the points according to the following table:

Correct answers	Number of points
60	50
59	49
58	48
57	47
56	46
55	45
54	44
53	43
52	42
51	41
50	40
49	39
48	38
47	37
46	36
45	35
44	34
43	33
42	32
41	31
40	30
39, 38	29
36, 37	28
34, 35	27
32, 33	26
30, 31	25
0–29	0

Class attendance: The student should compensate for any absence from practicals.

The final exam is oral. Success on the oral exam is converted into grade points as follows:

grade	grade points
insufficient	0
sufficient	25-33
good	34-40
very good	41-45
excellent	46-50

The student should obtain at least 25 points (50% of the total 50 points) on the final exam to obtain the final grade.

The final grade and knowledge assessment is the sum of grade points obtained during classes and on the final exam. The final student assessment is performed as follows:

- 90–100%, excellent (5), corresponds to grade A on the ECTS scale

- 75–89.9 %, very good (4), corresponds to grade B on the ECTS scale

- 60–74.9 %, good (3), corresponds to grade C on the ECTS scale

- 50–59.9 %, sufficient (2), corresponds to grade D on the ECTS scale

- 0–49.9 %, insufficient (1), corresponds to grade F on the ECTS scale

Who can take the final exam:

- students who obtained 25 and more grade points during classes.

Who cannot take the final exam:

- students who obtained less than 25 grade points during classes

- students who did not take the written test

- students who did not compensate for their absence from practicals.

Other notes (related to the course) important for students:

Additional information regarding the course and exam terms can be found on the Department’s website.

COURSE HOURS 2023/2024

Maxillofacial Surgery and Dentistry

Predavanja (Place and time or group)	**Vježbe** (Place and time or group)
02.10.2023	

L1. Introduction to maxillofacial surgery Introduction to traumatology in MFS Introduction to tumors of the maxillofacial region:
• P12 - KBC SUŠAK (12:30 - 17:00) [148]
  ○ MSAD
 	
L2. Skin and lip tumors:
• P12 - KBC SUŠAK (12:30 - 17:00) [148]
  ○ MSAD
 	
L3. Oral and oropharyngeal tumors Paranasal (maxillary sinus) tumors:
• P12 - KBC SUŠAK (12:30 - 17:00) [148]
  ○ MSAD	

prof. dr. sc. Belušić-Gobić Margita, dr. med. [148]	
04.10.2023	
	P1 Medical history, examination of the oral cavity, face and neck, History-taking, clinical examination, X-ray examination of injured patients: • Klinika za maksilofacijalnu kirurgiju (12:30 - 15:30) [148] [497] [1298] [1874] [1875] [1964] ○ MSAD
prof. dr. sc. Belušić-Gobić Margita, dr. med. [148] · prof. dr. sc. Cerović Robert, dr. med. [497] · Harmicar David [1298] · Marić Ivona [1964] · Vulić Luka [1875] · Zubović Arijan [1874]	
06.10.2023	

L4. Reconstructive surgery:
• P12 - KBC SUŠAK (11:15 - 15:45) [148] [497]
  ○ MSAD
 	
L5. Nontumor and tumor salivary gland diseases:
• P12 - KBC SUŠAK (11:15 - 15:45) [148] [497]
  ○ MSAD
 	
L6. Soft-tissue injuries of the head and neck Traumatology – mandibular fractures:
• P12 - KBC SUŠAK (11:15 - 15:45) [148] [497]
  ○ MSAD
	P2 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, Consideration (examination and theoretical) of differential diagnostics of cervical nodes:
	• Klinika za maksilofacijalnu kirurgiju (09:00 - 11:15) [148] [497] [1298] [1874] [1875] [1964]
	  ○ MSAD

prof. dr. sc. Belušić-Gobić Margita, dr. med. [148] · prof. dr. sc. Cerović Robert, dr. med. [497] · Harmicar David [1298] · Marić Ivona [1964] · Vulić Luka [1875] · Zubović Arijan [1874]	
11.10.2023	

	P1 Medical history, examination of the oral cavity, face and neck, History-taking, clinical examination, X-ray examination of injured patients: • Klinika za maksilofacijalnu kirurgiju (12:30 - 15:30) [148] [497] [1298] [1874] [1875] [1964] ◦ MSAD P3 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, inspection and examination of salivary gland functions (diff. dg.): • Klinika za maksilofacijalnu kirurgiju (12:30 - 15:30) [148] [497] [1298] [1874] [1875] [1964] ◦ MSAD
prof. dr. sc. Belušić-Gobić Margita, dr. med. [148] · prof. dr. sc. Cerović Robert, dr. med. [497] · Harmicar David [1298] · Marić Ivona [1964] · Vulić Luka [1875] · Zubović Arijan [1874]	
13.10.2023	
L7. Traumatology – fractures of the middle and upper third of the face: • P12 - KBC SUŠAK (11:15 - 15:45) [148] [497] ◦ MSAD L8. Inflammation in the maxillofacial region: • P12 - KBC SUŠAK (11:15 - 15:45) [148] [497] ◦ MSAD L9. Temporomandibular joint disorders Orofacial pain / Differential diagnosis of painful head and neck conditions: • P12 - KBC SUŠAK (11:15 - 15:45) [148] [497] ◦ MSAD	P2 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, Consideration (examination and theoretical) of differential diagnostics of cervical nodes: • Klinika za maksilofacijalnu kirurgiju (09:00 - 11:15) [148] [497] [1298] [1874] [1875] [1964] ◦ MSAD P3 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, inspection and examination of salivary gland functions (diff. dg.): • Klinika za maksilofacijalnu kirurgiju (09:00 - 11:15) [148] [497] [1298] [1874] [1875] [1964] ◦ MSAD
prof. dr. sc. Belušić-Gobić Margita, dr. med. [148] · prof. dr. sc. Cerović Robert, dr. med. [497] · Harmicar David [1298] · Marić Ivona [1964] · Vulić Luka [1875] · Zubović Arijan [1874]	
20.10.2023	
L10. Deformities and malformations: • P12 - KBC SUŠAK (11:15 - 14:15) [148] [497] ◦ MSAD L11. Dental medicine for medical students: • P12 - KBC SUŠAK (11:15 - 14:15) [148] [497] ◦ MSAD	P3 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, inspection and examination of salivary gland functions (diff. dg.): • Klinika za maksilofacijalnu kirurgiju (09:00 - 11:15) [148] [497] [1298] [1874] [1875] [1964] ◦ MSAD
prof. dr. sc. Belušić-Gobić Margita, dr. med. [148] · prof. dr. sc. Cerović Robert, dr. med. [497] · Harmicar David [1298] · Marić Ivona [1964] · Vulić Luka [1875] · Zubović Arijan [1874]	
21.10.2023	
L10. Deformities and malformations: • ONLINE (10:00 - 12:00) [1962] ◦ MSAD	
prof. dr. sc. Knežević Predrag, dr. med. [1962]	

List of lectures, seminars and practicals:

PREDAVANJA (TOPIC)	Number of hours	Location
L1. Introduction to maxillofacial surgery Introduction to traumatology in MFS Introduction to tumors of the maxillofacial region	2	P12 - KBC SUŠAK
L2. Skin and lip tumors	2	P12 - KBC SUŠAK

L3. Oral and oropharyngeal tumors Paranasal (maxillary sinus) tumors	2	P12 - KBC SUŠAK
L4. Reconstructive surgery	2	P12 - KBC SUŠAK
L5. Nontumor and tumor salivary gland diseases	2	P12 - KBC SUŠAK
L6. Soft-tissue injuries of the head and neck Traumatology – mandibular fractures	2	P12 - KBC SUŠAK
L7. Traumatology – fractures of the middle and upper third of the face	2	P12 - KBC SUŠAK
L8. Inflammation in the maxillofacial region	2	P12 - KBC SUŠAK
L9. Temporomandibular joint disorders Orofacial pain / Differential diagnosis of painful head and neck conditions	2	P12 - KBC SUŠAK
L10. Deformities and malformations	2	ONLINE P12 - KBC SUŠAK
L11. Dental medicine for medical students	2	P12 - KBC SUŠAK

VJEŽBE (TOPIC)	Number of hours	Location
P1 Medical history, examination of the oral cavity, face and neck, History-taking, clinical examination, X-ray examination of injured patients	3	Klinika za maksilofacijalnu kirurgiju
P2 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, Consideration (examination and theoretical) of differential diagnostics of cervical nodes	4	Klinika za maksilofacijalnu kirurgiju
P3 Examination, diagnostics, differential diagnostics, treatment options for cancer patients, inspection and examination of salivary gland functions (diff. dg.)	3	Klinika za maksilofacijalnu kirurgiju

EXAM DATES (final exam):

1.	23.10.2023.
2.	23.02.2024.
3.	05.07.2024.
4.	10.09.2024.
5.	24.09.2024.