

## SYLLABUS

### Жақ-бет аймағының анатомиясы мен физиологиясы/ Анатомия и физиология челюстно-лицевой области/ Anatomy and physiology of the maxillofacial region



<b>1. General information about the discipline</b>			
1.1 Faculty/School: Graduate School of Medicine	1.6	Credits (ECTS): 5 credits - 150 h -75 h contact	
1.2 Educational program (EP):  6B10113 - DENTISTRY 6B10113 - DENTISTRY 6B10113- DENTISTRY	1.7	<b>Prerequisites:</b> normal anatomy. <b>Post-requisites:</b> Operative surgery Basics of oral surgery	
1.3 Agency and year of accreditation of the EP IAAR 2023	1.8	IWS/SRM/SRD (number): 50 hours	
1.4 Clinical anatomy and physiology of the maxillofacial region	1.9	SSS/SRMP/SWDS (qty): 25 hours	
1.5 Discipline ID: KAGSh 2215 Discipline code: 103379	1.10	<b>Mandatory</b> – yes	
<b>2. Description of the discipline</b>			
Anatomy and physiology of the maxillofacial region studies the structure of the organs and tissues of the oral cavity and their functions related to digestion, breathing, speech, facial expressions and perception, as well as their relationships and possible pathologies, preparing the basis for surgery and orthopedics. In the system of training a dentist, clinical anatomy occupies an important place, being the basis for the transition from the theoretical training of students to the practical application of the knowledge gained at the university, it helps to understand the dynamics of the development of pathological processes, to determine the ways of rational methods of therapeutic and surgical influences. The anatomy of the maxillofacial region is the foundation for understanding pathologies, injuries, developmental anomalies and performing therapeutic procedures in dentistry, maxillofacial surgery and orthopedics.			
<b>3 The purpose of the discipline:</b>			
To form fundamental knowledge about the structure and functions of bones, muscles, teeth, vessels and nerves of the face and jaws for the diagnosis, treatment and prevention of pathologies in dentistry, maxillofacial surgery, orthopedics, to understand the processes of chewing, speech and swallowing, ensuring high-quality recovery of functions after injuries or diseases.			
<b>4. Learning Outcomes (RP) in the discipline (3-5)</b>			

	RL disciplines	RL according to the educational program, with which the RL in the discipline is related (No RL from the EP passport)	
1	<p>Demonstrates knowledge of the anatomy and physiology of the organs and systems of the LO</p> <ul style="list-style-type: none"> <li>- topographic, orienting and projection anatomy of superficial and deep blood vessels and nerves, lymphatic system;</li> <li>- clinical anatomy of the neck organs (submandibular salivary gland, larynx, trachea, pharynx, esophagus, thyroid and parathyroid glands);</li> <li>- clinical anatomy of the cellular spaces and cellular clefts of the neck and anatomical ways of propagation of purulent drips;</li> </ul>	Proficiency level - 2	Apply detailed knowledge of the structure and functions of the human body at the level of molecules and cells, organs and systems;
	Knows the basic morphological and functional data, physiological states in the CHO		
5	<ul style="list-style-type: none"> <li>- Is able to determine the projection of blood vessels and nerves of the cranial vault;</li> <li>- to show the main slits and openings on the outer and inner base of the skull, the places of exit of the cranial nerves;</li> <li>- to show the bony openings of the facial part of the head, to determine the projection of the branches of the facial and trigeminal nerves;</li> <li>- to show the mouths of the ducts of the main salivary glands on preparations and models;</li> </ul>	Proficiency level - 3	Apply knowledge of the basic principles of the human body for an effective treatment and diagnostic process;
<b>5. Methods of summative assessment (mark (yes – no) / indicate your own):</b>			
5.1	MCQ Comprehension and Application Testing	5.5	Scientific project of SRWS
5.2	Practical Skills Delivery – Practical Skills Acceptance (Dops)	5.6	360 Rating – Behavior and Professionalism
5.3	3. IWS – creative task	5.7	Midterm control: Stage 1 - MCQ testing for understanding and application Stage 2 – passing practical skills (miniclinical exam (MiniCex))

<b>6. Detailed information about the discipline</b>			
6.1	Academic Year: 2025-2026	6.3	Schedule (class days, time): From 8.00 to 13.00

6.2	Semester: Semester 4	6.4	Location (educational building, office, platform and link to the meeting of training with the use of DLT):
<b>7.</b>	<b>Discipline Leader</b>		
Position	Name	Department	Contact information (tel., e-mail)
Senior Lecturer		Dentistry	Consultations before exams
<b>8.</b>	<b>Content of the discipline</b>		
	<b>Topic Title</b>	<b>Number of hours</b>	<b>Form of conduct</b>
1.	Clinical anatomy of the cranial vault, the structure of the skull bones, features of blood supply to soft tissues. Cellular spaces and crevices, ways of propagation of purulent-inflammatory processes.	5	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
2.	Clinical anatomy of the outer base of the skull. Cranial nerves. Topography of the trigeminal (V pair), facial (VII pair), glossopharyngeal (IX pair) and vagus (X pair) nerves and their branches.	5	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
3	Clinical anatomy of the facial skull, boundaries, external landmarks and projections. Topography of the parotid gland and its duct, projection of the branches of the facial nerve, superficial temporal artery.	5	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
4	Features of blood supply to soft tissues. Cellular spaces, topography cracks, ways of spread of purulent-inflammatory processes.	5	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
5	Clinical anatomy of the deep area of the face. Borders, intermaxillary region according to Pirogov, temporal (maxillary)-pterygoid and interpterygoid cellular fissures, vessels and nerves.	5	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
6	Clinical anatomy of the upper and lower jaw, surgical anatomy of their fractures.	5	Formative assessment: 2. Work on phantoms 3. Work in albums
7	Masticatory apparatus. Clinical anatomy of facial muscles (mimic, masticatory and auxiliary), their characteristics, blood supply and	5	Formative assessment: 1. Using Active Learning Methods: TBL

	innervation. Temporomandibular joint (joint capsule), anatomical and physiological features of the joint. Blood supply, innervation.		2. Work on phantoms 3. Work in albums
8	Temporomandibular joint (joint capsule), anatomical and physiological features of the joint. Blood supply, innervation	5	Formative assessment: 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
9	<b><i>Current control-1</i></b>		Summative assessment: 2 stages: Stage 1 – MCQ testing for comprehension and application – 40% Stage 2 – practical skills (Dops) – 60%
10	Clinical anatomy of the mouth area, borders. Lip structure, blood supply, innervation, lymphatic drainage. Vestibule of the mouth, division into sections. Innervation and blood supply to the teeth. Periodontium, periodontium. The concept of occlusion. Clinical anatomy of the oral cavity, borders, soft and hard palate. Blood supply, innervation, lymphatic drainage.	4	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
11	Clinical anatomy of the floor of the oral cavity, muscles, fascia, cellular space. The throat, the tongue. Blood supply, innervation, lymphatic drainage.	4	Formative assessment: 2. Work on phantoms 3. Work in albums
12	Clinical anatomy of the nasal area. Borders, blood supply, innervation, lymphatic drainage. Paranasal sinuses.	4	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
13	Clinical anatomy of the neck. External landmarks and projections, layered structure of tissues, fascia and interfascial spaces. Topography of the submandibular and chin triangles, neurovascular formations, lymph nodes.	4	Formative assessment: 1. Using Active Learning Methods: TBL 2. Working on phantoms 3. Work in albums
14	Clinical anatomy of the carotid triangle and the neurovascular bundle of the neck. Topography of the neck organs (larynx, trachea, esophagus, thyroid and sling-like glands), their skeletopia, syntopy, blood supply, innervation, lymphatic drainage.	4	Formative assessment: 1. Using Active Learning Methods: TBL 2. Work on phantoms 3. Work in albums
15	Topography of the neck organs (larynx, trachea, esophagus, thyroid and sling-like glands), their skeletopia, syntopy, blood supply, innervation, lymphatic drainage.	4	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms

				3. Work in albums		
16	Clinical anatomy of the pharynx; the structure of its walls, sections, cellular spaces, blood supply, innervation, lymphatic drainage.	4		Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS		
17.	<b>Current control</b>	2	Summative assessment: 2 stages: Stage 1 – MCQ testing for comprehension and application – 40% Stage 2 – practical skills (Dops) – 60%			
	<b>Final control (exam)</b>		Summative assessment: 2 stages: Stage 1 – MCQ testing for comprehension and application – 40% 2nd stage - OSKE - 60%			
<b>Total</b>			<b>100</b>			
9.	<b>Teaching methods in the discipline</b> (briefly describe the teaching and learning approaches that will be used in teaching) Use of active learning methods: TBL, CBL					
1	<b>Formative assessment methods:</b> TBL – Team Based Learning CBL – Case Based Learning 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS					
2	<b>Methods of summative assessment (from paragraph 5):</b> 1. MCQ Comprehension and Application Testing 2. Practical skills – practical skills acceptance (Dops) – 60% 3. IWS – creative task 4. Protection of medical history 5. Scientific project of SRWS					
10.	<b>Summative assessment</b>					
<b>Nº</b>	<b>Forms of control</b>	<b>Weight % of total %</b>				
1	Practical Skills Reception	30% (estimated by the checklist)				
2	Boundary control	70%				

<b>Total CC1</b>		30 + 70 = 100%	
1	Verbal response	20% (estimated by the checklist)	
2	Classroom	10% (estimated according to the checklist)	
3	Scientific project of SRWS	10% (estimated according to the checklist)	
5	Boundary control	60% (1st stage - MCQ testing for understanding and application - 40%); 2nd stage - acceptance of practical skills (Dops) - 60%	
<b>Final exam 2</b>		20+10+10 + 60 = 100%	
9	Exam	<b>2 stages:</b> Stage 1 – MCQ testing for comprehension and application – 40% Stage 2 – SCE with SP – 60%	
10	<b>Final score:</b>	ADR 60% + Exam 40%	
<b>10. Evaluation</b>			
Grade by letter system	Digital Equivalent	Points (% content)	<b>Description of the assessment</b> (changes should be made only at the level of the decision of the Academic Committee on the Quality of the Faculty)
A	4,0	95-100	<b>It's cool.</b> Exceeds the highest standards of assignment.
A-	3,67	90-94	<b>It's cool.</b> Meets the highest standards of assignment.
Q+	3,33	85-89	<b>Ok.</b> Very good. Meets the high standards of the assignment.
In	3,0	80-84	<b>Ok.</b> Meets most job standards.
In-	2,67	75-79	<b>Ok.</b> More than enough. Shows some reasonable mastery of the material.
C+	2,33	70-74	<b>Ok.</b> Acceptable. Meets the basic standards of the task.
With	2,0	65-69	<b>Satisfactory.</b> Acceptable. Meets some basic job standards.
With-	1,67	60-64	<b>Satisfactory.</b> Acceptable. Meets some basic job standards.
D+	1,33	55-59	<b>Satisfactory.</b> Minimally acceptable.
D	1,0	50-54	<b>Satisfactory.</b> Minimally acceptable. The lowest level of knowledge and task performance.
FX	0,5	25-49	<b>Unsatisfactory.</b> Minimally acceptable.
F	0	0-24	<b>Unsatisfactory.</b> Very low productivity.

<b>11. Learning resources (use the full link and indicate where the texts/materials can be accessed)</b>						
References	<ol style="list-style-type: none"> <li>1. Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A</li> <li>2. Ostroverkhov G.V., Bomash Yu.M., Lubotsky D.N. Operative Surgery and Topographic Anatomy. Kursk, 1995.</li> <li>3. Kirpatovsky I.D., Smirnova E.D. Clinical anatomy - Book. 1 (head, neck, torso). MIA. Moscow, 2003.</li> <li>4. Bolshakov O.P., Semenov G.M. Operative Surgery and Topographic Anatomy: Practicum. – St. Petersburg, 2001.</li> </ol>					
<b>Main:</b>	<ol style="list-style-type: none"> <li>1. Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A</li> <li>2. Ostroverkhov G.V., Bomash Yu.M., Lubotsky D.N. Operative Surgery and Topographic Anatomy. Kursk, 1995.</li> <li>3. Kirpatovsky I.D., Smirnova E.D. Clinical anatomy - Book. 1 (head, neck, torso). MIA. Moscow, 2003.</li> <li>4. Bolshakov O.P., Semenov G.M. Operative Surgery and Topographic Anatomy: Practicum. – St. Petersburg, 2001.</li> </ol>					
<b>Additional:</b>	<ol style="list-style-type: none"> <li>5. Egorov P.M. Local anesthesia in dentistry. Moscow, Meditsina Publ., 1985.</li> </ol>					
Electronic resources	<p><b>Internet resources:</b></p> <p><b>e-library.kaznu</b></p> <ol style="list-style-type: none"> <li>1. Medscape.com - <a href="https://www.medscape.com/familymedicine">https://www.medscape.com/familymedicine</a></li> <li>2. Oxfordmedicine.com -<a href="https://oxfordmedicine.com/">https://oxfordmedicine.com/</a></li> <li>3. <a href="https://www.wolterskluwer.com/en/solutions/uptodate">Uptodate.com</a> - <a href="https://www.wolterskluwer.com/en/solutions/uptodate">https://www.wolterskluwer.com/en/solutions/uptodate</a></li> <li>4. <a href="https://www.youtube.com/c/osmosis">Osmosis</a> - <a href="https://www.youtube.com/c/osmosis">https://www.youtube.com/c/osmosis</a></li> <li>5. <a href="https://www.youtube.com/c/NinjaNerdScience/videos">Ninja Nerd</a> - <a href="https://www.youtube.com/c/NinjaNerdScience/videos">https://www.youtube.com/c/NinjaNerdScience/videos</a></li> <li>6. <a href="https://www.youtube.com/c/CorMedicale">CorMedicale</a> - <a href="https://www.youtube.com/c/CorMedicale">https://www.youtube.com/c/CorMedicale</a> medical video animations in Russian language.</li> <li>7. <a href="https://www.youtube.com/channel/UCbYmF43dpGHz8gi2ugiXr0Q">Lecturio Medical</a> - <a href="https://www.youtube.com/channel/UCbYmF43dpGHz8gi2ugiXr0Q">https://www.youtube.com/channel/UCbYmF43dpGHz8gi2ugiXr0Q</a></li> <li>8. <a href="https://www.youtube.com/c/SciDrugs/videos">SciDrugs</a> - <a href="https://www.youtube.com/c/SciDrugs/videos">https://www.youtube.com/c/SciDrugs/videos</a> - видеолекции по фармакологии на русском языке.</li> </ol>					
Simulators in the simulation center	<p><b>Models of human bodies, head and neck, individual bones of the head and neck</b></p>					
Special software	<ol style="list-style-type: none"> <li>1. Google classroom – freely available.</li> <li>2. Medical calculators: Medscape, MD+Calc – freely available.</li> <li>3. ANATOMY Apps</li> </ol>					
<b>12. Requirements for a student and bonus system</b>						
<p><b>Bonus system:</b></p> <p>For extraordinary achievements in the field of future professional activity (clinical, scientific, organizational, etc.), additional points can be added to the student up to 10% of the final grade (by the decision of the department)</p>						
<b>13.</b>	<p><b>Discipline Policy</b> (parts highlighted in green, please do not change)</p>					

The discipline policy is determined by the Academic Policy of the University and the Policy of Academic Integrity of the University. If the links are not opened, then you can find the relevant documents in the Univer IS.

**Rules of professional conduct:**

**1) Appearance:**

- ✓ office dress code (shorts, short skirts, open T-shirts are not allowed to visit the university, jeans are not allowed in the clinic)
- ✓ Clean ironed bathrobe
- ✓ Medical Mask
- ✓ medical cap (or neat hijab without hanging ends)
- ✓ Medical gloves
- ✓ Change of shoes
- ✓ A neat hairstyle, long hair should be gathered in a ponytail, or a bun, both for girls and boys. Neatly short-trimmed nails. Bright, dark manicure is prohibited. It is permissible to cover the nails with transparent varnish.
- ✓ badge with full name (in full)

2) Mandatory presence of a phonendoscope, tonometer, measuring tape, (you can also have a pulse oximeter)

3) \* **A duly executed sanitary (medical) book (before the start of classes and must be updated in due time)**

4) \***Availability of a vaccination passport or other document confirming a fully completed course of vaccination against COVID-19 and influenza**

**5) Mandatory compliance with the rules of personal hygiene and safety**

6) Systematic preparation for the educational process.

7) Accurate and timely maintenance of reporting documentation.

8) Active participation in the medical, diagnostic and social activities of the departments.

**A student without a medical book and vaccination will not be allowed to see patients.**

**A student who does not meet the requirements of appearance and/or who emits a strong/pungent odor, because such an odor can provoke an undesirable reaction in the patient (obstruction, etc.) – is not allowed to see patients!**

**The teacher has the right to decide on the admission to classes of students who do not meet the requirements of professional behavior, including the requirements of the clinical base!**

**Academic discipline:**

1. Being late for class or the morning conference is not allowed. In case of lateness, the decision on admission to the lesson is made by the teacher conducting the lesson. If there is a valid reason, inform the teacher about the delay and the reason by message or by phone. After the third delay, the student writes an explanatory note addressed to the head of the department indicating the reasons for the delay and is sent to the dean's office to obtain admission to the class. In case of being late without a valid reason, the teacher has the right to deduct points from the current grade (1 point for each minute of delay)
2. Religious events, holidays, etc., are not a valid reason for absences, tardiness and distraction of the teacher and the group from work during classes.
3. If you are late for a good reason, do not distract the group and the teacher from the lesson and quietly go to your place.
4. Leaving the class ahead of time, being outside the workplace during school hours is regarded as truancy.

	<p>5. Additional work of students is not allowed during study hours (during practical classes and duty).</p> <p>6. For students who have more than 3 absences without notifying the curator and a valid reason, a report is drawn up with a recommendation for expulsion.</p> <p>7. Missed classes are not worked out.</p> <p>8. The Internal Regulations of the Clinical Bases of the Department are fully applicable to students</p> <p>9. Greet the teacher and any older person by standing up (in class)</p> <p>10. Smoking (including the use of vapes, electronic cigarettes) is strictly prohibited on the territory of health care facilities (outdoors) and the university. Punishment - up to the cancellation of the boundary control, in case of repeated violation - the decision on admission to classes is made by the head of the department</p> <p>11. Respectful attitude towards colleagues regardless of gender, age, nationality, religion, sexual orientation.</p> <p>12. Have a laptop / laptop / tab / tablet for studying and passing MCQ tests on TBL, midterm and final controls.</p> <p>13. Taking MCQ tests on phones and smartphones is strictly prohibited.</p> <p><b>The student's behavior at the exams is regulated by the "Rules for Conducting the Final Control", "Instructions for Conducting the Final Control of the Fall/Spring Semester of the Current Academic Year" (current documents are uploaded to the Univer IS and are updated before the start of the session); "Regulations on checking students' text documents for borrowings".</b></p>
14	<p><b>1. Constantly prepares for classes:</b> For example, he supports statements with relevant references, makes brief summaries Demonstrates effective learning skills, assists in teaching others</p> <p><b>2. Take responsibility for your learning:</b> For example, he manages his training plan, actively tries to improve, critically evaluates information resources</p> <p><b>3. Actively participate in the training of the group:</b> For example, he actively participates in the discussion, willingly takes on tasks</p> <p><b>4. Demonstrate effective group skills</b> For example, he takes the initiative, shows respect and correctness in relation to others, helps to resolve misunderstandings and conflicts</p> <p><b>5. Skillful command of communication with peers:</b> For example, he actively listens, is receptive to non-verbal and emotional signals Respectful attitude</p> <p><b>6. Highly developed professional skills:</b> Eager to complete assignments, looking for opportunities for more learning, confident and skilled Compliance with ethics and deontology in relation to patients and medical staff Observance of subordination.</p> <p><b>7. High Introspection:</b> For example, he recognizes the limitations of his knowledge or abilities, without becoming defensive or reproaching others</p> <p><b>8. Highly developed critical thinking:</b> For example, appropriately demonstrates skills in performing key tasks such as generating hypotheses, applying knowledge to case studies, critically evaluating information, making conclusions aloud, explaining the process of reflection</p>

	<p><b>9. Fully complies with the rules of academic conduct with understanding, suggests improvements in order to increase efficiency.</b> Observes the ethics of communication - both oral and written (in chats and appeals)</p> <p><b>10. Fully complies with the rules with full understanding, encourages other members of the group to adhere to the rules</b> Strictly adheres to the principles of medical ethics and PRIMUM NON NOCER</p>
15.	<p><b>Distance/online learning – prohibited by clinical discipline</b> (parts highlighted in green, please do not change)</p>

1. According to the Order of the Ministry of Education and Science of the Republic of Kazakhstan No17513 dated October 9, 2018 "On Approval of the List of Areas of Training of Personnel with Higher and Postgraduate Education, Training in the Form of External Studies and Online Learning Is Not Allowed"

According to the above regulatory document, specialties with the code of disciplines healthcare: bachelor's (6B101), master's (7M101), residency (7R101), doctorantur, (8D101) - external studies and online education - are not allowed.

Thus, students are prohibited from distance learning in any form. It is only allowed to work out a lesson in the discipline due to the absence of the student for a reason beyond his control and the presence of a timely confirming document (example: a health problem and the presentation of a confirming document - a medical certificate, an EMS signal sheet, an extract of an advisory appointment with a medical specialist - a doctor)

#### 16. Approval and consideration

Head of the Department		
Teaching Quality Committee and training of the faculty	Minutes No	Approval Date
Dean	Signature	Dean of the Faculty

#### Thematic plan and content of classes

Nº	Subject	Table of Contents	References	Form of conduct
1	Clinical anatomy of the cranial vault, the structure of the skull bones, features of blood supply to soft tissues. Cellular spaces and crevices, ways of propagation of purulent-inflammatory processes.	Human skull, structure of skull bones, anatomy of the cranial vault	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
2	Clinical anatomy of the outer base of the skull. Cranial nerves. Topography of the trigeminal (V pair), facial (VII pair), glossopharyngeal (IX pair) vagus (X pair) nerves and their branches.	Features of the anatomical structure of the anterior and middle cranial fossa. Cranial nerves. Topography of trigeminal (V pair), facial (VII pair), glossopharyngeal (IX pair) vagus (X pair) nerves and their branches.	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. TBL, CBL 2. Work on phantoms 3. Work in albums

	glossopharyngeal (IX pair) and vagus (X pair) nerves and their branches.	<ul style="list-style-type: none"> <li>- Which branch of the trigeminal nerve is the ciliary node (ganglion) connected to?</li> <li>- Are the submandibular, hypoglossal and auricular ganglia connected to which branch of the trigeminal nerve?</li> <li>- The ophthalmic nerve of the trigeminal nerve enters the orbit through which openings?</li> <li>- The mandibular nerve exits the cranial cavity through which opening</li> <li>- Where do the anterior upper alveolar branches depart from the infraorbital nerve?</li> <li>- What branches does the II branch of the trigeminal nerve divide into?</li> </ul>		
3	Clinical anatomy of the facial skull, boundaries, external landmarks and projections.  Topography of the parotid gland and its duct, projection of the branches of the facial nerve, superficial temporal artery.	Features of blood supply to the soft tissues of the skull. Cellular spaces and crevices, ways of propagation of purulent-inflammatory processes.	<p>Ostroverkhov G.V., Bomash Yu.M., Lubotsky D.N. Operative Surgery and Topographic Anatomy. Kursk, 1995.</p> <p>Kirpatovsky I.D., Smirnova E.D. Clinical anatomy - Book. 1 (head, neck, torso). MIA. Moscow, 2003.</p> <p>Human Physiology: Compendium: Textbook / edited by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002</p>	
4	Features of blood supply to soft tissues.  Cellular spaces, topography cracks, ways of spread of purulent-inflammatory processes.	<p>Clinical anatomy of the facial skull, boundaries, external landmarks and projections.</p> <p>Topography of the parotid gland and its duct, projection of the branches of the facial nerve, superficial temporal artery.</p>	<p>Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002</p>	<p>Formative assessment:</p> <ol style="list-style-type: none"> <li>1. Use of active learning methods: TBL, CBL</li> <li>2. Work on phantoms</li> <li>3. Work in albums</li> <li>4. Mini-conference of the topic of IWS</li> </ol>

5	Clinical anatomy of the deep area of the face. Borders, intermaxillary region according to Pirogov, temporal (maxillary)-pterygoid and interpterygoid cellular fissures, vessels and nerves.	Features of blood supply to soft tissues. Cellular spaces, topography cracks, ways of spread of purulent-inflammatory processes. cracks, ways of spread of purulent-inflammatory processes. - To which cervical vertebra is the common carotid artery pressed to temporarily stop bleeding from it? - Where do the facial vein (anterior) and posterior maxillary vein drain after fusion? - From which artery does the angular artery depart?	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS

6	Clinical anatomy of the upper and lower jaw, surgical anatomy of their fractures.	Clinical anatomy of the deep area of the face. Borders, intermaxillary area according to Pirogov, temporal (maxillary) - pterygoid and interpterygoid cell fissures, vessels and nerves.	<p>Ostroverkhov G.V., Bomash Yu.M., Lubotsky D.N. Operative Surgery and Topographic Anatomy. Kursk, 1995.</p> <p>Kirpatovsky I.D., Smirnova E.D. Clinical anatomy - Book. 1 (head, neck, torso). MIA. Moscow, 2003.</p> <p>Bolshakov O.P., Semenov G.M. Operative Surgery and Topographic Anatomy: Practicum. – St. Petersburg, 2001.</p> <p>Aleynikova T.V., Dumbay V.N., Kuraev G.A., Feldman G.L. Physiology of the Central Nervous System: Textbook. Rostov-on-Don: Phoenix, 2006. – 376.</p> <p>Human Physiology: Compendium: Textbook / edited by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002</p>	Formative assessment: TBL, CBL Working on phantoms Work in albums Mini-conference on the topic of IWS
7	Masticatory apparatus. Clinical anatomy of facial muscles (mimic, masticatory and auxiliary), their characteristics, blood supply and innervation. Temporomandibular joint (joint capsule), anatomical and physiological features of the joint. Blood supply, innervation.	Clinical anatomy of the upper and lower jaw, surgical anatomy of their fractures.	<p>Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002</p>	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
8	Temporomandibular joint (joint capsule), anatomical and physiological features of	Masticatory apparatus. Clinical anatomy of facial muscles (mimic, masticatory and auxiliary), their characteristics, blood supply and innervation. Temporomandibular joint (joint capsule), anatomical and physiological	<p>Ostroverkhov G.V., Bomash Yu.M., Lubotsky D.N. Operative Surgery and Topographic Anatomy. Kursk, 1995.</p>	Formative assessment: 1. Use of active learning methods: TBL, CBL

	the joint. Blood supply, innervation	features of the joint. Blood supply, innervation.	Kirpatovsky I.D., Smirnova E.D. Clinical anatomy - Book. 1 (head, neck, torso). MIA. Moscow, 2003.	2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
9	<b><i>Current control-1</i></b>	Testing and acceptance of practical skills		
10	Clinical anatomy of the mouth area, borders. Lip structure, blood supply, innervation, lymphatic drainage. Vestibule of the mouth, division into sections. Innervation and blood supply to the teeth. Periodontium, periodontium. The concept of occlusion. Clinical anatomy of the oral cavity, borders, soft and hard palate. Blood supply, innervation, lymphatic drainage.	Structure and physiology of the TMJ. Age aspect. Joint biomechanics	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS

11	Clinical anatomy of the floor of the oral cavity, muscles, fascia, cellular space. The throat, the tongue. Blood supply, innervation, lymphatic drainage.	Clinical anatomy of the mouth area, borders. Structure of the upper and lower lip, blood supply, innervation, lymphatic drainage. Vestibule of the mouth, division into sections.	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
12	Clinical anatomy of the nasal area. Borders, blood supply, innervation, lymphatic drainage. Paranasal sinuses.	Anatomical and clinical formulas of milk and permanent teeth. Innervation and blood supply to the teeth. Periodontium, periodontium. The concept of occlusion. Clinical anatomy of the oral cavity, borders, soft and hard palate. Blood supply, innervation, lymphatic drainage.	Ostroverkhov G.V., Bomash Yu.M., Lubotsky D.N. Operative Surgery and Topographic Anatomy. Kursk, 1995. Kirpatovsky I.D., Smirnova E.D. Clinical anatomy - Book. 1 (head, neck, torso). MIA. Moscow, 2003. Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
13	Clinical anatomy of the neck. External landmarks and projections, layered structure of tissues, fascia and interfascial spaces.	Clinical anatomy of the floor of the oral cavity, muscles, fascia, cellular space. The throat, the tongue. Blood supply, innervation, lymphatic drainage.	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL

	Topography of the submandibular and chin triangles, neurovascular formations, lymph nodes.			2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
14	Clinical anatomy of the carotid triangle and the neurovascular bundle of the neck. Topography of the neck organs (larynx, trachea, esophagus, thyroid and sling-like glands), their skeletopia, syntopy, blood supply, innervation, lymphatic drainage.	Clinical anatomy of the nasal area. Borders, blood supply, innervation, lymphatic drainage. Paranasal sinuses.	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
15	Topography of the neck organs (larynx, trachea, esophagus, thyroid and sling-like glands), their skeletopia, syntopy, blood supply, innervation, lymphatic drainage.	Clinical anatomy of the neck. External landmarks and projections, layered structure of tissues, fascia and interfascial spaces. Topography of the submandibular and chin triangles, neurovascular formations, lymph nodes.	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom pechaty, 2002Pyatina Samara: Samar. Dom Pechati, 2002	Formative assessment: 1. Use of active learning methods: TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS
16	Clinical anatomy of the pharynx; the structure of its walls, sections, cellular spaces, blood supply, innervation, lymphatic drainage.	The pharynx (pharynx) is a muscular-fascial organ, which is a common part of the respiratory and digestive tracts, located from the base of the skull to the CVI level with a transition to the esophagus. The pharyngeal wall is built of mucous membrane, fibrous base (pharyngobasilar fascia), muscular layer (constrictors and longitudinal muscles) and	Silin A.V., Kirsanova E.V., Surdina E.D., Leonova E.V., Yakovenko L.L., Tumanova S.A. Afiesiology of Man: Compendium: Textbook / Ed. by B.I. Tkachenko, V.F. Pyatin Samara: Samara. Dom pechaty, 2002Pyatina Samara: Samar. Dom Pechati, 2002	Formative assessment: 1. TBL, CBL 2. Work on phantoms 3. Work in albums 4. Mini-conference of the topic of IWS

		outer fascial membrane, which determines its function and ways of spreading infection. Blood supply is carried out by the branches of the external carotid artery (A. pharyngea ascendens, a. facialis, a. maxillaris, a. lingualis, a. thyroidea superior), venous outflow is carried out into the pharyngeal venous plexus and the internal jugular vein system. Innervation is provided by the pharyngeal plexus (IX, X pairs of CN, sympathetic fibers), where IX is mainly responsible for the sensitivity of the oropharynx, X is responsible for the motor function of the muscles and reflexes. Lymphatic outflow is directed to the retropharyngeal, deep cervical (jugular) and submandibular lymph nodes, which determines the pathways of metastasis and spread of inflammatory processes.		
17	<b>Current control-2</b>	Testing and acceptance of practical skills		

<b>№</b>	<b>Topic of IWS (Clinical Anatomy and physiology of the Head and Neck)</b>	<b>Form of conduct</b>
1	Bone landmarks of the head and neck in the clinic (craniometric points, lines and projections)	Quiz (20-25 questions) + mini-presentation (5 slides)
2	Fascia of the neck and interfascial spaces: ways of infection spread	Presentation (10–12 slides) + situational tasks
3	Neck Triangles: Borders, Content, and Clinical Significance	Crossword + oral analysis of keys
4	Topography of the salivary glands (parotid, submandibular, sublingual): ducts and projections	Quiz + Clinical Mini-Cases
5	Neurovascular formations of the neck (carotid arteries, jugular veins, n. vagus): "danger zones"	Role-playing game "doctor-intern-patient" + discussion of mistakes
6	Topography of the Facial Nerve and Trigeminal Nerve Branches: Innervation Zones and Exit Points	Interactive quiz + scheme/poster
7	Subtemporal and pterygopalatal fossa: reports, topography, clinical complications	Presentation + Instructor Quizzes

Nº	Topic of IWS (Clinical Anatomy and physiology of the Head and Neck)	Form of conduct
8	Lymphatic system of the head and neck: lymph node groups, pathways of metastasis and inflammation	Crossword + table "area – lymph nodes"
9	Floor of the oral cavity: sublingual, subchin and submandibular spaces	Role play + situational tasks
10	Clinical anatomy of the larynx and trachea: landmarks for conicotomy/tracheostomy	Quiz + practice-oriented presentation (algorithm)

### Team based learning – TBL

	%
<b>Individual -- (IRAT)</b>	<b>30</b>
<b>Group - - (GRAT)</b>	<b>10</b>
<b>Appeal</b>	<b>10</b>
<b>Evaluation for cases -</b>	<b>20</b>
<b>Evaluation of comrades (bonus)</b>	<b>10</b>
	<b>100%</b>

### Case-based learning CBL

	%
1 Interpret survey data	10
2 Interpretation of physical examination data	10
3 Preliminary diagnosis, justification, DDx, examination plan	10

4	Interpretation of laboratory instrumental examination data	10
5	Clinical diagnosis, problem list	10
6	Management and treatment plan	10
7	Validity of the choice of drugs and treatment regimen	10
8	Evaluation of effectiveness, prognosis, prevention	10
9	Special problems and questions on the case	10
10	Evaluation of comrades (bonus)	
		<b>100%</b>

**Point-rating assessment of the CPS – creative task (maximum 90 points) + bonuses for English language and time management**

		<b>10</b>	<b>8</b>	<b>4</b>	<b>2</b>
<b>1</b>	<b>Focus on the problem</b>	Organized, focused, highlights all issues related to the main identified problem with an understanding of the specific clinical situation	Organized, focused, highlights all issues related to the main identified problem, but no understanding of the specific clinical situation	Unfocused, Distraction on issues that are not related to the main problem identified	Inaccurate, misses the main thing, inappropriate data.
<b>2</b>	<b>Informative, effective presentation</b>	All the necessary information on the topic is fully conveyed in a free, consistent, logical manner. The form of the product is adequately chosen	All the necessary information is conveyed in a logical manner, but with minor inaccuracies	All the necessary information on the topic is presented chaotically, with minor errors	Important information on the topic, gross mistakes are not reflected
<b>3</b>	<b>Credibility</b>	The material was selected on the basis of reliably established facts. Manifestation of understanding on the level or quality of evidence	Some conclusions and conclusions are formulated on the basis of assumptions or incorrect facts. There is no complete understanding of the level or quality of the evidence	Insufficient understanding of the problem, some conclusions and conclusions are based on incomplete and unproven data – dubious resources were used	Conclusions and conclusions are unsubstantiated or incorrect
<b>4</b>	<b>Logic and consistency</b>	The presentation is logical and consistent, has internal unity, the provisions in the product follow from one another and are logically interrelated	It has an internal unity, the position of the product follows from one another, but there are inaccuracies	There is no consistency and logic in the presentation, but it is possible to trace the main idea	Jumps from one thing to another, it's hard to grasp the main idea
<b>5</b>	<b>Literature analysis</b>	The literature data are presented in a logical relationship, demonstrate a deep study of the main and additional information resources	Literature data demonstrate the development of the main literature	Literary data are not always relevant, do not support the logic and evidence of presentations	Inconsistency and chaotic presentation of data, inconsistency No knowledge of the main textbook
<b>6</b>	<b>Practical significance</b>	High	Significant	Not enough	Not acceptable

7	<b>Patient-centered</b>	High	Oriented	Not enough	Not acceptable
8	<b>Applicability in future practice</b>	High	Applicable	Not enough	Not acceptable
9	<b>Clarity of the presentation, quality of the report (assessment of the speaker)</b>	Correctly, all the features of Power Point or other e-gadgets are used to the point, fluency in the material, confident manner of presentation	Overloaded or insufficiently used visual materials, incomplete knowledge of the material	Visual materials are not informative, he does not report confidently	Does not know the material, does not know how to present it
B o n u s	<b>English/Russian/ Kazakh*</b>	The product is fully submitted in English/Russian/Kazakh (checked by the head of the department) <b>+ 10-20 points</b> depending on quality	The product was prepared in English, handed over in Russian <b>+ 5-10 points</b> depending on the quality (or vice versa)	In the preparation of the product, English-language souCCes were used <b>+ 2-5 points depending on quality</b>	
B o n u s	<b>Time management**</b>	The product was delivered ahead of schedule <b>10 points are added</b>	The product is delivered on time - <b>no points are added</b>	Postponement of delivery that does not affect the quality <b>Minus 2 points</b>	Late delivery <b>Minus 10 points</b>
B o n u s	<b>Rating***</b>	Additional points (up to 10 points)	Outstanding work, for example: Best Group Work Creativity Innovative approach to the task At the suggestion of the group		
	<p>* - for Kazakh/Russian groups - English; for groups studying in English – completing the task in Russian or Kazakh</p> <p>* - term - determined by the teacher, as a rule - the day of the midterm control</p> <p>** - Thus, the maximum can be 90 points, to get above 90 - you need to show a result <b>higher than expected</b></p>				

**SCORECARD for determining the cellular space on the phantom**

№ p/n	Evaluation criteria	Level					
		Excellent	Very good	Acceptable	Requires correction	Unacceptable	Negative
1.	Orientation to anatomical landmarks: correctly names key landmarks (lower edge and angle of the lower jaw, branch, zygomatic arch, chin region, hyoid bone, parotid and masticatory zone).	10	8	6	4	2	0
2.	Knowledge of fascial sheets and their role: correctly explains which fascia form the boundaries of the cellular spaces (superficial/propriated fascia, fascia of the floor of the oral cavity, etc.).	10	8	6	4	2	0
3.	Correct definition of the boundaries of the cellular spaces: demonstrates the boundaries of the main spaces (subchin, submandibular, sublingual, buccal, parotid-masticatory, pterygomandibular, temporal superficial/deep) on the model.	10	8	6	4	2	0
4.	Correctness of demonstration of connections between spaces: shows which cellular spaces communicate with each other and along which pathways the inflammatory process can spread.	10	8	6	4	2	0
5.	Identification of "dangerous directions" of infection: indicates clinically significant routes (parapharyngeal/retropharyngeal spread, risk of mediastinitis, venous anastomoses with possible spread to the cavernous sinus).	10	8	6	4	2	0
6	Consideration of odontogenic origin and distribution routes: explains the effect of the position of the root apices and muscles (in particular, m. mylohyoideus) on the transition of the process to the hyoid or submandibular space.	10	8	6	4	2	0
7	Correct use of topographic lines and levels: demonstrates landmarks (projection of the attachment of	10	8	6	4	2	0

	the maxillohyoid muscle, the boundaries of the submandibular and sublingual regions).						
8	Accuracy of practical demonstration: performs the demonstration confidently, consistently, without gross anatomical errors, correctly manipulates the model.	10	8	6	4	2	0
9	Clinical interpretation by cellular spaces: associates the lesion of a specific space with typical clinical manifestations (swelling, trismus, dysphagia, tongue displacement, "double chin", etc.).	10	8	6	4	2	0
10	Communication and terminology: uses correct anatomical and topographical terms, explains logically and in a structured way.	10	8	6	4	2	0
	<b>Total</b>	<b>100</b>	<b>80</b>	<b>60</b>	<b>40</b>	<b>20</b>	<b>0</b>

#### SYLLABUS FAMILIARIZATION SHEET

Discipline: \_\_\_\_\_ Discipline code (if any): \_\_\_\_\_ Educational program:  
 \_\_\_\_\_ Course: \_\_\_\_\_ Semester: \_\_\_\_\_ Academic year: \_\_\_\_\_

Lecturer: \_\_\_\_\_ Department: \_\_\_\_\_

I hereby confirm that I **am familiar** with the syllabus of discipline, including:

- the purpose and objectives of the discipline;
- the thematic plan and content of classes;
- requirements for attendance and current control;
- assessment criteria and the scale for assigning the final grade;
- types of independent work and deadlines;
- the policy of academic honesty and the rules of conduct in the classroom.

<b>Nº</b>	<b>Student's full name</b>	<b>Group</b>	<b>Signature</b>	<b>Date</b>
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