

AL-FARABI KAZAKH NATIONAL UNIVERSITY
Faculty of Medicine and Public Health
Higher School of Medicine
Department of Dentistry



EDUCATIONAL AND METHODICAL COMPLEX OF THE DISCIPLINE
EDUCATIONAL PROGRAM 6B10113
SYLLABUS AESTHETIC DENTISTRY
Number of credits – 6

Almaty 2025

SYLLABUS
ЭСТЕТИКАЛЫҚ СТОМАТОЛОГИЯ
AESTHETIC DENTISTRY
AESTHETIC DENTISTRY

1.	General information about the discipline		
1.1	Faculty / School: Medicine and Healthcare/Higher School of Medicine	1.6	Credits (ECTS): 6 credits – 180 hours-90 hours contact
1.2	Educational Program (OP): 6B10113- DENTISTRY 6B10113- DENTISTRY 6B10113- DENTISTRY	1.7	<u>Prerequisites:</u> 1. Anatomy and modeling of teeth 2. Cariesology <u>Post-requirements:</u> 1. Clinical Endodontics
1.3	Agency and year of accreditation of OP NAAR 2023	1.8	SRS/SRM/SRD(qty): 60 hours
1.4	Estetikalyk stomatologiya/Esthetic dentistry	1.9	SRSP/SRMP/CPD(qty): 30 hours
1.5	Discipline ID: 103359 Discipline code: ES4316	1.10	<i>Required</i> -yes
2.	Description of the discipline		
	The discipline focuses on topics related to the organization of the work of a dental restorer, equipping the workplace, studying modern methods and means of preparing teeth, methods of aesthetic restoration for various dental defects of carious and non-carious origin with photopolymer composite materials.		
3	The purpose of the discipline		
	is to develop skills on restoration technologies, restoration in the dental clinic in children and adults, on basic technologies of direct restoration on phantoms and in a real clinical reception, using the skills of effective professional communication, interpretation of clinical symptoms and syndromes, data from laboratory and instrumental research methods and the application of basic medical treatment, diagnostic and preventive measures.		
4.	Results of training (RO) in the discipline (3-5)		
	RO of the discipline	RO for the educational program, which is associated with the RO for the discipline (RO number from the OP passport)	

1	Conduct an examination of a patient in need of dental restoration based on the reliability of basic and additional methods of laboratory and instrumental examination	Proficiency level-3	Demonstrate interpersonal and communication skills that lead to effective information exchange and cooperation with patients, their families and medical professionals, including using information technologies To identify and interpret clinical symptoms and syndromes to collect information from patients and other sources of clinical significance, data from laboratory and instrumental methods of studying patients with age-related diseases for the management of dental diseases, including the initiation of appropriate interventions.
2	Explain rights and get consent for a procedure or intervention	Proficiency level-2	Apply knowledge about the rights, obligations and ways to protect the rights of the patient, including the child as a patient, in professional activities; apply knowledge about legal norms in the work of a dentist, ways and means of legal protection of health care employees.
3	Know the characteristics and demonstrate skills of dental preparation depending on the intensity of the carious process and the method of restoration	Proficiency level-3	Demonstrate commitment to professional duties and ethical principles Integrate clinical knowledge and skills to ensure an individual approach to the treatment of dental patients and improve their health in accordance with their needs; make professional decisions based on rational analysis diagnostics and applying the principles of evidence-based and personalized medicine.
4	Demonstrate knowledge of aesthetic restoration tools and skills to work with them	Proficiency level-3	Provide effective patient-centered care, including appropriate and effective measures aimed at diagnosis, treatment and prevention of diseases
5	Demonstrate skills in color matching techniques for teeth to be restored	Proficiency level-4	Be aware of and demonstrate responsibility for their actions within the framework of existing procedures. regulatory and legal bases of the healthcare system and be guided by them in their practical activities to ensure optimal medical care
6	Master the skills of restoring the shape of teeth in various pathologies of carious and non-carious origin and the ability to choose the right materials for restorations	Proficiency level-3	
7	Demonstrate effective verbal and non-verbal communication skills Develop students ' communication skills with colleagues, patients and parents on the	Proficiency Level-3	Effectively build dynamic relationships between the dentist and the patient, which occur before, during and after medical treatment, in compliance with the principles of ethics and

			deontology, based on knowledge about human behavior, patient psychology, taking into account cultural characteristics and race.
5.	Summative assessment methods (<i>check (yes-no) / indicate your own</i>):		
5.1	MCQ testing for understanding and application	5.5	Research project NIRS
5.2	Passing practical skills-miniclinical exam(MiniCex)	5.6	360-degree assessment-behavior and professionalism
5.3	SRS-creative task	5.7	Boundary control: Stage 1-MCQ testing for understanding and application Stage 2-passing practical skills (miniclinical exam(MiniCex))

6.	Detailed information about the discipline			
6.1	Academic year: 2025-2026	6.3	Schedule (class days, time): From 8.00to 14.00	
6.2	Semester: 7th semester	6.4	Place (academic building, office, platform and link to the meeting of training with the use of DOT): Tole bi, 96; Sim. center; Clinical databases Link Teams	
7.	Leaders of the discipline			
	Position	Full name	Department	Contact information (tel., e-mail)
	St.teacher	Amzeeva A. A.	Dentistry	+77022436151
	Acting Associate Professor	Sabitova K. E.	Dentistry	+77051912776
8.	Content of the discipline			
	Title of the topic		Number of	Form of implementation

		hours	
1	Aesthetic restoration, concept, indications and contraindications. Equipment, equipment, organization of the workplace for aesthetic restoration. Dental instruments for aesthetic restoration. Photopolymerizers	6	Formative evaluation: 1. Working in small groups 2. Working on phantom blocks 3. Drawing up an algorithm for diagnosis and treatment 4. Mini-conference topics SRS
2	Aesthetic restoration in pediatric dentistry, features depending on age, indications and contraindications for dental restoration (baby teeth and permanent teeth depending on the condition of the root system)	6	Formative assessment: 1 Working on phantom blocks 2 Working in small groups 3 Mini-conference topics SRS
3	Anatomical and physiological foundations of facial aesthetics. Principles of aesthetics in dentistry.	6	Formative assessment: 1 Drawing up a restoration plan 2 Working on phantom blocks 3 Drawing up an algorithm for diagnosis and treatment 4 Working in small groups
4	Diagnostics of the state of tissues of the restored tooth, including in children. Planning of aesthetic dental restoration, including in children. Photo protocol, purpose, equipment	6	Formative assessment: 1 Work on phantom blocks 2 Drawing up an algorithm for diagnosis and treatment 3 Working in small groups
5	Preparing patients for aesthetic restoration. Selection of color and design of the restoration. Stages of restoration	6	Formative assessment: 1 Work on phantom blocks 2 Drawing up an algorithm for diagnosis, treatment 3 Working in small groups
6	Determining the psychoemotional types of children. Preparing children for dental restoration. Choice of restoration technology for children. Methods of anesthesia in childhood.	6	Formative assessment: 1. Working on phantom blocks 2. Drawing up an algorithm for diagnosis and treatment 3. Working in small groups
7	Aesthetic characteristics of the tooth. Color characteristics of the tooth: optical properties of enamel and dentin. Age-related changes in tooth color. Selection of shades of tooth color. Artificial teeth colors	6	Formative assessment: 1. Case study 2. Drawing up an algorithm for diagnosis, treatment 3. Working in small groups

8	Features of preparation of teeth with different localization of carious cavities (I –V Class of Black) in preparation for restoration.	6	Formative assessment: 1. Working on phantom blocks 2. Working in small groups
9	Boundary control 1	6	Summative assessment 1st stage-rMCQ testing for understanding and application - 40% 2-2nd stage - practical skills admission miniclinic exam (MiniCex) - 60%
10	Methods of modeling restorations of anterior groups of teeth. Features of restoration of anterior groups of teeth in children Layer-by-layer restoration. Stratification. Reconstruction of the dentition and transformation of teeth.	6	Formative assessment: 1. Oral survey 2. Work on phantoms 3. Conference
11	Aesthetic and functional restorations of chewing teeth. Features of restoration of chewing groups of teeth in children "Sandwich" - technique. Various variants of the "sandwich" technique-open, closed. Application of packaged composite materials	6	Formative assessment: 1 Case study 2. Work on phantoms 3
: 12	Discoloration of vital and devital teeth. Correction of tooth color. Methods of bleaching. Indications for the choice of treatment method. Bleaching products	6	Formative assessment: 1. Oral survey 2. Work on phantoms 3. Conference
13	Complete restoration of dental crowns with composite materials. Composite bridge prosthesis	6	Formative assessment: 1. Oral survey 2. Drawing up a restoration algorithm 3. Case study
14	Finishing of restorations. Restoration quality criteria. Errors and complications during restoration work.	6	Formative assessment: 1. Oral survey 2. Working on phantoms 3. Work in small groups
15	Boundary control -2	6	Summative assessment: 2 stages: 1st stage-rMCQ training for understanding and application - 40% 2-2nd stage-practical skills admission Miniclinical exam (MiniCex) - 60%

Final control (exam)	Summative evaluation: 2 stages: Stage 1 - rMCQ teasing for understanding and application-40 %Stage 2 – OCE-60%	
Total		100
9.	Teaching methods in the discipline (briefly describe the teaching and learning approaches that will be used in teaching) Using active learning methods: TBL, CBL	
1	Methods of formative assessment: TBL-Team Based Learning CBL-Case Based Learning	
2	Methods of summative assessment (from point 5): 1. MCQ testing for understanding and application 2. Passing practical skills – miniclinical exam (MiniCex) 3. SRS-creative task 4. Protecting your medical history 5. R & D Research Project	
10.	Summative	
assessment No	. of the control form	Weight in % of total %
1	Reception of practical skills	30% (evaluated according to the checklist)
2	Border control	70%
Total RC1		30 + 70 = 100%
1	Oral response	20% (estimated by checklist)
2	Klassrum	10% (estimated by checklist)
3	R & D research project	10% (estimated on the checklist)
5	Milestone control	60% (Stage 1-rMCQ teasing for understanding and application-40%; 2-Stage 2-mini clinical exam (MiniCex) - 60%)

Total RC2		20+10+10 + 60 = 100%	
9	The exam	has 2 stages: 1st stage-TMCQ teasing for understanding and application - 40% 2-2nd stage-OCE with SP - 60%	
10	Final grade:	ORD 60% + Exam 40%	
10.	Evaluation		
Score Letter system	score Digital equivalent	Points (% content)	Description of the assessment (changes can only be made at the level of the decision of the Academic Quality Committee of the Faculty)
A	4.0	95-100	Great. Exceeds the highest task standards.
A -	3.67	90-94	Excellent. Meets the highest standards of the task.
At+	3.33	85-89	Is Good. Very good. Meets the high standards of the assignment.
In	3.0	, 80-84	Is Good. Meets most job standards.
B-	2.67	75-79	Good. More than enough. Shows some reasonable knowledge of the material.
C+	2.33	70-74	Is Good. Acceptable. Meets the main task standards.
From	2.0	65-69	Satisfactory. Acceptable. Meets some of the main task standards.
C-	1.67	60-64	Satisfactory. Acceptable. Meets some of the main task standards.
D+	1,33	55-59	Satisfactory. Minimally acceptable.
D	1,0	50-54	Satisfactory. Minimally acceptable. The lowest level of knowledge and task completion.
FX	0,5	25-49	Unsatisfactory. Minimally acceptable.
F	0	0-24	Unsatisfactory. Very low productivity.

11.	Training resources <i>(use the full link and indicate where you can access the texts/materials)</i>
Literature	<p>by Douglas Terry, Willie Geller. - Aesthetic restorative dentistry. Selection of materials and metrics. - Moscow, 2013. - 732 p.</p> <p>Vincenzo Musella. Modern aesthetic dentistry. - Moscow, 2018. -84 p.</p> <p>Martyanov I. N., Apresyan S. V. et al. Photoprotocol in modern dentistry. – Moscow, 2018. - 80 p.II. 91</p> <p>Therapeutic dentistry: Textbook for students of medical universities / Ed. by E. V. Borovsky, Moscow: "MIA", 878 p.: 2018</p> <p>Goldstein R., Solov'eva A.M.-Esteticheskaya stomatologiya. Volume 1. Theoretical foundations. Principles of communication. Methods of treatment.Lomiashvili</p> <p>L. G. Ayupova Khudozhestvennoe modelirovanie i restoratsiya zubov [Artistic modeling and restoration of teeth], Meditsinskaya kniga Publ., 2004, 265 pp.</p> <p>Treatment and restoration of baby teeth-160 pages, 2009</p> <p>Chikunov S. A. Sovremennaya esteticheskaya stomatologiya [Modern aesthetic dentistry]. St. Petersburg, Forum Publishing House, 2007. - 70 P.</p> <p>Tuati, Miara, Natanson: Esthetic dentistry and ceramic restorations,2019</p> <p>Arutyunov S. D., Daov A. N. Schematic image of tooth contours. - Moscow, 2018. -88 p.</p> <p>Ralph Radlansky, Karl Wesker. - Face. Atlas of clinical anatomy. -366 p.</p> <p>Esthetic dentistry in clinical practice, Marc Geissberger, 2010</p> <p>Essential of esthetic dentistry, Nairn H. F. Wilson. 2015</p> <p>Gerald Ubassi. Forma i tsvet [Shape and Color], Moscow, 2013, 233 p. (in Russian).</p> <p>Интернет-ресурсы: e-library.kaznu 1. Medscape 2. https://geekymedics.com 3. ncbi.nlm.nih.gov/PubMed/ 4. Access Medicine 5. https://www.unicef.org/kazakhstan/</p>
Electronic resources	

Simulators in	the Dental simulation center installations at the Department of Dentistry, in the Sim center and in clinical databases
Special software	<ol style="list-style-type: none"> 1. Google classroom – freely available. 2. Medical calculators: Medscape, Doctor's Handbook, MD+Calc - freely available. 3. Handbook of diagnostic and treatment protocols for medical workers from RCRS, Ministry of Health of the Republic of Kazakhstan: Dariger - available in free access.
12.	Training requirements and bonus system
<p>Bonus system: For extraordinary achievements in the field of future professional activity (clinical, scientific, organizational, etc.), students can receive additional points up to 10% of the final assessment (by the decision of the department).</p>	
13.	Discipline Policy <i>(please do not change the parts highlighted in green)</i>
<p>The policy of the discipline is determined <u>by the Academic Policy of the University</u> and <u>the University's Academic Integrity Policy</u>. If the links do not open, then you can find up-to-date documents in the Univer IP.</p> <p>Professional behavior rules:</p> <ol style="list-style-type: none"> 1) Appearance: <ul style="list-style-type: none"> ✓ office style of clothing (shorts, short skirts, open T-shirts are not allowed to attend the university, jeans are not allowed in the clinic) ✓ clean ironed dressing gown ✓ medical mask ✓ medical cap (or a neat hijab without hanging ends) ✓ medical gloves ✓ change of shoes ✓ neat hairstyle, long hair should be gathered in a ponytail, or bun, both for girls and boys. Neatly cropped nails. Bright, dark manicure is prohibited. It is acceptable to cover your nails with clear varnish. ✓ badge with full name (in full) 2) Mandatory presence of a phonendoscope, tonometer, centimeter tape, (you can also have a pulse oximeter) 3) *Properly issued sanitary (medical) book (before the start of classes and must be updated in due time) 4) * Availability of a vaccination passport or other document on a fully completed course of vaccination against COVID-19 and influenza 5) Mandatory compliance with personal hygiene and safety regulations 	

6) Systematic preparation for the educational process.
 7) Accurate and timely maintenance of accounting documentation.
 8) Active participation in medical-diagnostic and social events of 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 the appearance and/or who gives off a strong / pungent smell, since such a smell can provoke an undesirable reaction in the patient (obstruction, etc.)- is not allowed to see patients!
The teacher has the right to make a decision on admission to classes for students who do not meet the requirements of professional behavior, including the requirements of the clinical base!

Academic discipline:

1. You can't be late for classes or a morning conference. If you are late , the decision on admission to the lesson is made by the teacher leading 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 to the head of the department, indicating the reasons for the delay, and is sent to the dean's office for admission to the class. If you are late without a valid reason, the teacher has the right to withdraw points from the current assessment (1 point for each minute of delay).
2. Religious events, holidays, etc. are not a valid reason for skipping, being late, or distracting the teacher and group from work during classes.
3. If you are late for a valid reason – do not distract the group and the teacher from the lesson and go quietly to your seat.
4. Leaving a class earlier than the scheduled time, or being outside the workplace during school hours is considered a truancy.
5. Additional work of students during school hours (during practical classes and duties) is not allowed.
6. For students who have more than 3 passes without notifying the curator and a valid reason, a report is issued with a recommendation for expulsion.
7. Missed classes are not processed.
8. Students are fully subject to the Internal rules of the clinical bases of the department
9. To greet the teacher and any older person by getting up (in class)
10. Smoking (including the use of vapes, e-cigarettes) strictly prohibited on the territory of medical institutions (out-doors) and the university. Punishment-up to cancellation of border control, in case of repeated violation-the decision on admission to classes is made by the head of the department
11. of Respect for colleagues, regardless of gender, age, nationality, religion, sexual orientation.
12. Have a laptop / laptop / tab / tablet with you for training and passing MCQ tests on TBL, boundary and final controls.
13. Taking MCQ tests on telemobile phones and smartphones is strictly prohibited.

The student's behavior during exams is regulated [by the "Rules for conducting final control"](#), ["Instructions for conducting final control of the autumn / spring semester of the current academic year"](#) (current documents are uploaded to the Univer IC and updated before the session starts); ["Regulations on checking students ' text documents for borrowing"](#).

14 **1. Constantly preparing for classes:**

	<p>For example, it supports statements with relevant links, makes brief summaries , demonstrates effective learning skills, and helps others</p> <p>learn 2. Take responsibility for your training: For example, it manages its own training plan, actively tries to improve itself, and critically evaluates information resources</p> <p>3. Actively participate in the group's training: For example, they actively participate in discussions and are willing to take tasks</p> <p>4. Demonstrate effective group skills For example, it takes the initiative, shows respect and correctness towards others, and helps resolve misunderstandings and conflicts.</p> <p>5. Proficient communication skills with peers: For example, actively listens, and is receptive to nonverbal and emotional cues Respectful attitude</p> <p>6. Highly developed professional skills: Committed to completing assignments, looking for opportunities for more training, confident and qualified Compliance with ethics and deontology in relation to patients and medical staff Compliance with subordination.</p> <p>7. High introspection: For example, it recognizes the limitations of its knowledge or abilities without taking the defensive or rebuking others</p> <p>.8 Highly developed critical thinking: For example, the student demonstrates skills in performing key tasks, such as generating hypotheses, applying knowledge to cases from practice, critically evaluating information, making conclusions out loud, explaining the reflection process</p> <p>9. Fully complies with the rules of academic behavior with understanding, suggests improvements to improve performance. Adheres to the ethics of communication-both oral and written (in chats and messages)</p> <p>10. Fully adheres to the rules with full understanding of them, encourages other group members to adhere to the rules Strictly adheres to the principles of medical ethics and PRIMUM NON NOCER</p>
15.	<p>Distance/online learning is prohibited in the clinical discipline дисциплине <i>(please do not change the parts marked in green)</i></p>
<p>1. According to the Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 17513 dated October 9, 2018 "On approval of the List of areas of training of personnel with higher and postgraduate education, training in which in the form of external and online training is not allowed"</p> <p>According to the above-mentioned regulatory document, specialties with the code of health care disciplines: bachelor's degree (6B101), master's degree (7M101), residency (7R101), doctoral studies, (8D101) - training in the form of external and online-training is not allowed. Thus, students are prohibited from distance learning in any form. It is allowed only to work out a class in the discipline due to the absence of a student for a reason beyond his control and the availability of a timely confirmation document (for example: a health problem and an application for an approval document - a medical certificate, a NSR signal sheet, an extract from a consultation appointment with a medical specialist- врачу).</p>	

16.	Approval and review	
of the Full name.Head of the Department Candidate of Medical Sciences		Candidate of Medical Sciences Abdikarimov S. Zh
. Committee on the Quality of teaching and Training of the Faculty	Protocol No . Date of approval	Kurmanova G. M.
Dean, Candidate of Medical Sciences, Associate Professor	Signature	Kalmakhanov S. B.

Thematic plan and content of classes

#	Topic	Content	Literature	Form of implementation
1	Aesthetic restoration, concept, indications and contraindications. Equipment, equipment, organization of the workplace for aesthetic restoration. Dental instruments for aesthetic restoration. Photopolymerizers	Terms and concepts in aesthetic dentistry. Basic requirements for the organization of the workplace. Lighting features. Equipment of the restorer's office Photopolymerizers, types, safety techniques	Esthetic dentistry in clinical practice, Marc Geissberger, 2010 Essential of esthetic dentistry, Nairn H. F. Wilson. 2015 Tuati, Miara, Nathanson:	Formative Assessment: 1. Working on phantom blocks 2. Drawing up an algorithm for diagnosis and treatment 3. Mini-conference topics of SRS
2	Aesthetic restoration in pediatric dentistry, features depending on age, indications and contraindications for dental restoration (baby teeth and permanent teeth depending on the state of the root system)	Aesthetic restoration in children's dentistry, especially depending on the age. Types of restoration, indications and contraindications for dental restoration (milk and permanent teeth, depending on the condition of the root system). Tools and materials.	Treatment and restoration of baby teeth-M. S. Daggal (Daggel) 160 pages, 2009	Formative assessment: 1. Working on phantom blocks 2. Drawing up an algorithm for diagnosis and treatment 3. Mini-conference topics of SRS
3	Anatomical and physiological foundations of facial aesthetics. Principles of aesthetics in dentistry.	The concept of the social significance of a smile. Types of smiles, female and male. The role of lip anatomy, facial contour and shape, inclination of the labial surfaces of teeth, and vertical dimensions of the face. Incisor line slope. Offset of the median incisor line. The width of the dental arch in relation to the width of the smile. Violation of the length of the teeth along the cutting edge. Violation of the length of the teeth along the gingival margin. Violation of the width of the teeth. Violation of the shape of teeth.	Esthetic dentistry in clinical practice, Marc Geissberger, 2010 Essential of esthetic dentistry, Nairn H. F. Wilson. 2015 Tuati, Miara, Nathanson: Aesthetic Dentistry and Ceramic Restorations, 2019	Formative Assessment: 1. 2. Work on phantoms 3. Work in albums 4. Mini-conference on SRS topics

		<p>Violation of the brightness of teeth. Indications for aesthetic restoration in the juvenile, mature and elderly age, taking into account age characteristics. Principles and rules of aesthetics - creating an individual smile, the meaning of light, enamel texture.</p> <p>Creating mock-ups, models, and biological preservation of tooth tissues.</p>		
4	<p>Diagnostics of the state of tissues of the restored tooth, including in children. Planning of aesthetic dental restoration, including in children. Photo protocol, purpose, equipment</p>	<p>Algorithm of examination in aesthetic dentistry, including in children. Indications and contraindications for aesthetic dental restoration, including in children</p> <p>For assessing aesthetic disorders of the face (face, smile, teeth, gums)</p> <p>Diagnostics of the condition of the tissues of the restored tooth, including in children.</p> <p>Portrait / intraoral photography.</p> <p>Dental photography. Concept, types.</p> <p><i>Basics of the photo protocol.</i></p>	<p>Esthetic dentistry in clinical practice, Marc Geissberger, 2010</p> <p>Essential of esthetic dentistry, Nairn H. F. Wilson. 2015</p> <p>Tuati, Miara, Nathanson: Aesthetic dentistry and ceramic restorations, 2019</p> <p>Treatment and restoration of baby teeth-M. S. Daggal (Daggel) 160 pages, 2009</p>	<p>Formative assessment:</p> <p>Work on phantom blocks</p> <p>Drawing up a diagnostic and treatment algorithm</p> <p>Working in small groups</p> <p>Drawing</p>
up a rec over every plan 5	<p>Preparing patients for aesthetic restoration. Selection of color and design of the restoration. Stages of restoration</p>	<p>Preparation of patients for aesthetic restoration. Selection of color and design of the restoration. A set of hand tools for aesthetic restoration - LmErgoSense tracking system, Lm Arte, Lm Applica, Lm Composite. Burs for preparation.</p> <p>Этапы реставрации</p>	<p>Esthetic dentistry in clinical practice, Marc Geissberger, 2010</p> <p>Essential of esthetic dentistry, Nairn H. F. Wilson. 2015</p> <p>Tuati, Miara, Nathanson: Aesthetic Dentistry and Ceramic Restorations, 2019</p>	<p>Formative Assessment:</p> <p>Work on phantom blocks</p> <p>Drawing up an algorithm for diagnosis, treatment</p> <p>Working in small groups</p>

6	<p>Determining the psychoemotional types of children. Preparing children for dental restoration. Choice of restoration technology for children. Methods of anesthesia in childhood.</p>	<p>Definition of psychoemotional types of children. Establishing contact with children. Preparation of children for dental restoration, premedication, types, means used for premedication. Choice of restoration technology in children, indications and contraindications. Methods of anesthesia in childhood. Indications for the choice of analgesia method, means, dosage.</p>	<p>Treatment and restoration of baby teeth-M. S. Daggal (Daggel) 160 pages, 2009</p>	<p>Formative assessment: 1. Working on phantom blocks 2. Drawing up an algorithm for diagnosis and treatment 3. Mini-conference topics SRS</p>
7	<p>Aesthetic characteristics of the tooth. Color characteristics of the tooth: optical properties of enamel and dentin. Age-related changes in tooth color. Selection of shades of tooth color. Artificial teeth colors</p>	<p>Color characteristics and age-related changes in tooth color Optical properties of enamel Optical properties of dentin The role of illumination The role of background The role of physiological and psychological factors in the perception of tooth color. The concept of hue, chromaticity, and opacity. Selection of tooth color shades Stages and methods for determining the color of restoration</p>	<p>Esthetic dentistry in clinical practice, Marc Geissberger, 2010 Essential of esthetic dentistry, Nairn H. F. Wilson. 2015 Tuati, Miara, Nathanson: Aesthetic Dentistry and Ceramic Restorations, 2019</p>	<p>Formative Assessment: Working on phantom blocks Drawing up an algorithm for diagnosis and treatment Working in small groups</p>
8	<p>Features of preparing teeth with different localization of carious cavities (I –V Class of Black) in preparation for restoration.</p>	<p>Features of opening, dilation, necroectomy with adhesive preparation technique (vestibular, lingual, direct, incisial access) Features of cavity formation for restoration. Formation of tooth enamel. Microinvasive dissection - MID. Mount Classification. Tunnel dissection. Bate-cave preparation. Slot препарирование</p>	<p>Esthetic dentistry in clinical practice, Marc Geissberger, 2010 Essential of esthetic dentistry, Nairn H. F. Wilson. 2015 Tuati, Miara, Nathanson: Aesthetic Dentistry and Ceramic Restorations, 2019</p>	<p>Formative Assessment: Working on phantom blocks Drawing up an algorithm for diagnosis and treatment Working in small groups</p>

9	Boundary control 1	Testing Practical skills admission	Summative assessment: 2 stages: 1st stage-TMCQ training for understanding and application-40% 2-2nd stage-practical skills admission miniclinic exam (MiniCex) - 60%	
10	Methods of modeling restorations of anterior groups of teeth. Features of restoration of anterior groups of teeth in children Layer-by-layer restoration. Stratification. Reconstruction of the dentition and transformation of teeth.	Restoration of anterior groups of teeth, including in children: methods, methods, features of using composite materials. Removable celluloid caps for restoring baby teeth. The concept of reconstruction and transformation of teeth. Restoration of tilted teeth, diastemas, and tremors. Lengthening (shortening) of teeth, stages of carrying out.	Lobovkina L. A., Romanov A.M. Algorithms of aesthetic restoration of anterior and lateral teeth. Moscow: MED press-inform Publ., 2007. Treatment and restoration of baby teeth-M. S. Daggal (Daggel) 160 pages, 2009	Formative assessment: 1.Using active методов learning methods: TBL, CBL 2.Working on phantoms 3. Working in albums 4. Mini-conference topics SRS
11	Aesthetic and functional restorations of chewing teeth. Features of restoration of chewing groups of teeth in children "Sandwich" - technique. Various variants of the "sandwich" technique- open, closed. Application of packaged composite materials	To know the difference between an open and closed sandwich To be able to restore the contact point of contact. Restoration of chewing groups of teeth in children: methods, methods, features of using composite materials. Restoration of anterior teeth in the Sandwich technique	Skripnikova P. N. Teeth whitening. Poltava, 2005. - 66 P. Salova Treatment and restoration of baby teeth-M. S. Daggal (Daggel) 160 pages, 2009	Formative assessment: 1. Using active learning methods: 2. Work on phantoms 3. Work in albums 4. Mini-conference topics SRS
12	Discoloration of vital and devital teeth. Correction of tooth color. Methods of bleaching. Indications for the choice of treatment method. Means for bleaching	the causes of discolorites. Clinical signs Methods of tooth color correction. Method of total dentin resection. Technique of carrying out. Bleaching. Indications and contraindications. Means and techniques of conducting	Radlinsky S. Dent Art// Salova A.V. Fundamentals of aesthetic dental restoration. St. Petersburg, 2008. -166	P. Formative assessment: 1. Using active learning methodsИспользован ие активных методов: 2. Work on phantoms 3. Work in albums 4. Mini-conference topics SRS

13	Complete restoration of dental crowns with composite materials. Composite bridge prosthesis	Complete restoration of the crown with composite material.Method, process, advantages, limitations. Bridge-like prosthesis made of composite material.Type of construction.Manufacturing methods.Applications, materials, advantages, disadvantages.	Salova A.V. Fundamentals of aesthetic dental restoration. St. Petersburg, 2008. -166	P. Formative assessment: 1. Using active learning methodsИспользование активных методов: 2. Work on phantoms 3. Work in albums 4. Mini-conference topics SRS
14	Finishing of restorations. Restoration quality criteria. Errors and complications during restoration work.	Goals , finishing tasks, and tools. Assessment methods Contouring-tools, materials, techniques Teeth restoration grinding-tools, materials ,techniques (Soft lex, Diatech Swiss lex, Optidisk, strips) Polishing - tools, materials, techniques Finishing photopolymerization in dental restoration - tools, materials, techniques. Errors and complications	Salova A.V. Osnovy esteticheskoi restoratsii zubov [Fundamentals of aesthetic dental restoration]. St. Petersburg, 2008. -166	P. Formative assessment: 1. Using active learning methodsИспользование активных методов training sessions: 2. Work on phantoms 3. Work in albums 4. Mini-conference topics SRS
15	Boundary control -2	Testing Reception of practical skills	Summative assessment	

Independent work of students

SRS topics	Type of SRS	Delivery dates
Application of direct ceramic veneers	Presentation based on materials from our own projects	Rubezhny control No. 1
Application of veneers for dental discoloration	Videos	
Restoration of diastema of the front teeth.	Video	
materials Comparative analysis of direct and indirect methods of restoration	Presentation based on the materials of our own projects	
Aesthetic restoration of baby teeth, types, features.	Presentation based on the materials of our own projects	
Choosing a method of anesthesia in pediatric dentistry. Premedication.	Presentation based on the materials of your own projects	
Principles of artistic modeling of teeth and their relationship with the function of the maxillary apparatus	Presentation based on the materials of your own projects	Rubezhny control No. 2
Modern composite materials and their application, as well as the use of modular technologies and other methods, such as veneers, lumineers and crowns.	Presentation based on materials from your own projects	
Mistakes and complications when working with composites. Elimination and prevention.	Video	
materials Aesthetic restoration of frontteethwith composite materials	Video materials	

Rules for issuing an SRS

Structure of a multimedia presentation: the presentation must be presented in PowerPoint (at least 25 slides, text slides must not contain more than 8-10 lines, font Verdana)

- Title page (organization, presentation topic, performer's name, course, group, teacher's name)

- Introduction (generalized relevance of the topic, goals and objectives of the presentation)
- Main part: this part of the presentation includes all tables, diagrams, graphs, and drawings that reflect the essence of the problem. We welcome the inclusion of video reviews, videos made by yourself
- Conclusion (the presentation data is summarized and conclusions are drawn that correspond to the goals and objectives of the presentation)
- List of references with full name of the author, full name of the source, year of publication, number of pages (at least 5-8 sources)

Training video

Structure of the training video: It consists of an introduction, where the topic and goals are announced, the main part, where the material is revealed using visual tools and voice-over, and the conclusion, where the results are summed up and recommendations are given. Also, depending on the format, the structure may include practical tasks or a change in interactive elements, such as infographics and animation.

- **Introduction:**
 - **Title and introductory information:** Presentation of the topic and brief description of the video's goals.
 - **Preview:** A brief overview of what will be presented in the film to interest the viewer.
- **Main part:**
 - **Presentation of the material:** Information is presented either in the form of a lecture, or through a demonstration of actions on the screen (screencast).
 - **Visual support:** Various visual elements are used, such as:
 - ⌚ Presentation slides.
 - ⌚ Infographics and visual effects.
 - ⌚ Drawings, diagrams, and tables in the scribing style.
 - ⌚ Animation.
 - **Voice-over:** Explanations of the video sequence and the announcer's comments.
 - **Practical elements:** Enabling tasks that the student can complete after viewing the material.
- **Conclusion:**
 - **Summing up the results:** A brief summary of the completed material.
 - **Conclusions and recommendations:** Recommendations for further study or practical application of knowledge.

CRITERIA FOR EVALUATING A STUDENT'S ORAL RESPONSE

Characteristics of the answer	Points in the BRS	Level of competence formation in the discipline	ESTS assessment
<p>A complete, detailed answer to the question is given, a set of conscious knowledge about the object is shown, which manifests itself in the free operation of concepts, the ability to identify its essential and non-essential features, cause-and-effect relationships. Knowledge about an object is demonstrated against the background of its understanding in the system of this science and interdisciplinary connections. The answer is formulated in terms of science, presented in literary language, logical, evidence-based, and demonstrates the author's position of the student. Fully mastered the competencies</p>	of 96-100	High	A+
<p>, a complete, detailed answer to the question is given, a set of conscious knowledge about the object is shown, which manifests itself in the free operation of concepts, the ability to identify its essential and non-essential features, cause-and-effect relationships. Knowledge about an object is demonstrated against the background of its understanding in the system of this science and interdisciplinary connections. Appropriate terminology is used in the answer, it is presented in literary language, is logical, evidential, and demonstrates the author's position of the student. He has fully mastered the competencies</p>	of 90-95	Tall	, And
<p>a complete, detailed answer to the question is given, the main provisions of the topic are revealed in evidence; the answer traces a clear structure, logical sequence that reflects the essence of the concepts, theories, and phenomena being revealed. The answer is presented in literary language using terminology. There were some errors in the response that were corrected by the student with the help of the teacher.</p>	76-89	Average	B
<p>Gives an insufficiently complete and consistent answer to the question posed, but at the same time shows the ability to identify essential and non-essential features and cause-and-effect relationships. The answer is logical, stated using the terminology of the topic. There may be 1-2</p>	66-74	Low	. C

errors in the definition of basic concepts that the student finds difficult to correct on their own. Poorly mastered the competencies.			
An incomplete answer is given, and the logic and sequence of presentation are significantly violated. Gross errors were made in determining the essence of the disclosed concepts, theories, and phenomena, due to the student's misunderstanding of their essential and non-essential features and connections. There are no conclusions in the response. Poorly mastered the competencies.	60-65	Extremely low	C
An incomplete answer is given, representing scattered knowledge on the topic of the question with significant errors in definitions. There is fragmentary, illogical presentation. The student is not aware of the connection of this concept, theory, phenomenon with other objects of the discipline. There are no conclusions, concretization, or evidence-based presentation. Speech is illiterate. Additional and clarifying questions from the teacher do not lead to correction of the student's answer not only to the question posed, but also to other questions of the discipline. Competencies are not formed.	0-59	Not formed	F

Point-rating assessment of students ' professional skills – on the miniclinal exam					
Professional skills	2 points	4 points	6 points	8 points	10 points
1. Collection of medical history	collected randomly with details of facts that are not relevant for diagnosis	collected unsystematically with significant omissions	collected with fixing facts that do not give an idea of the essence of the disease and the sequence of symptoms	collected systematically, but without sufficient clarification of the nature of the main symptoms and possible causes of their occurrence	collected systematically, the anamnesis fully reflects the dynamics of the development of the disease
2. Physical examination	does not possess manual skills	was conducted randomly, with omissions, without effect	was not carried out fully enough with technical errors	was carried out systematically, but with minor technical inaccuracies	was carried out systematically, technically correctly and effectively
3. The preliminary diagnosis	was made incorrectly	only the class of the disease	is indicated the leading syndrome is highlighted, but there is no diagnostic conclusion	set correctly, without justification	set correctly, justification is given
4. Appointment of a survey plan	contraindicated studies are prescribed	inadequate	not fully adequate	adequate, but with minor omissions	complete and adequate
5. Interpretation of the survey results	incorrect assessment that led to contraindicated actions	largely incorrect	partially correct with significant omissions	correct with minor inaccuracies	complete and correct
6. Differential diagnosis	inadequate	chaotic	Incomplete	reasoned, but not with all similar diseases	complete
Professional skills	2 points	4 points	6 points	8 points	10 points
7. Final diagnosis and its justification	lack of clinical thinking	the diagnosis is confused, unconvincing	the diagnosis is insufficiently justified, complications are not	the diagnosis of the underlying disease is complete, but	exhaustively complete, justified

			recognized, concomitant diseases	concomitant diseases are not specified	
8. Choice of treatment	contraindicated drugs	are prescribed insufficiently adequate in substance and dosage	treatment is not complete enough for both the main and concomitant diseases	correct, but not exhaustive enough or polypharmacy	treatment is quite adequate
9. The idea of the mechanism of action of the prescribed drugs	incorrect interpretation	is largely erroneous	partial	mistakes in insignificant details	complete
10. Definition of prognosis and prevention	cannot define	inadequate definition	insufficiently adequate and incomplete	adequate, but incomplete	adequate, complete

Score-rating rating of the SRS-creative task (maximum 90 points) + bonuses for English language and time management

		10	8	4	2
1	Problem focus	Organized focused, highlights all questions related to the main identified problem with an understanding of the specific clinical situation	Organized, focused, highlights all questions related to the main identified problem, but there is no understanding of the specific clinical situation	Unfocused, Distraction to questions not related to the main identified problem	Inaccurate, misses the point, inappropriate data.
2	Informative, effective presentation	All the necessary information on the topic is fully conveyed in a free, consistent, logical manner The product form is adequately selected	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 is not reflected, gross errors
are not reflected 3	Reliability	The material is based on reliably established facts. Display of understanding by the level or quality of evidence	Some conclusions and conclusions are formulated based on assumptions or incorrect facts. There is no complete understanding of the level or quality of evidence	There is insufficient understanding of the problem, some conclusions and conclusions are based on incomplete and unproven data-questionable resources are used	Conclusions and conclusions are not justified or incorrect
4	Logic and consistency	The presentation is logical and consistent, has internal unity, the provisions in the product follow from each other and are logically interrelated	internal unity, product positions follow from one another, but there are inaccuracies	There is no consistency and logic in the presentation, but it is possible to track the main idea	Jumps from one to another, it is difficult to grasp the main idea
5	Literature analysis	Literary data are presented in a logical relationship, demonstrate a deep study of the main	Literary data demonstrate the study of the main literature	Literary data show the study of the main literature data is not always in place, does not support the consistency and evidence of statements	Inconsistency and randomness in the presentation of data, inconsistency

		and additional information resources			No knowledge of the main textbook
6	Practical significance	High	Significant	Not enough	Not acceptable
7	Patient-oriented	High	Focused	Not enough	Not acceptable
8	Applicability in future practice	High	Applicable	Not enough	Not acceptable
9	Presentation clarity, report quality (speaker's assessment)	Correctly, all the features of Power Point or other e-gadgets are used to the point, fluency in the material, confident manner of presentation	Is overloaded or insufficiently used visual materials, incomplete knowledge of the material	Visual materials are not informative does not confidently report	Does not own the material, does not know how to present
it bonus	English/Russian/Kazakh*	The product is fully delivered in English/Russian/Kazakh (checked by the head of the department) + 10-20 points depending on the quality	of the product prepared in English, submitted in Russian / kaz + 5-10 points depending on the quality (or vice versa)	When preparing the product, we used English-language sources + 2-5 points depending on the quality	
of the bonus	Time management**	Product delivered ahead of time 10 points	are awarded Product delivered on time – no points are awarded	Postponement of delivery that does not affect quality Minus 2 points	Delivered late Minus 10 points
Bonus	Rating** *	Additional points (up to 10 points)	Outstanding work, for example: Best work in a group Creative approach Innovative approach to completing tasks At the suggestion of the group		
<p>* - for Kaz/Rus groups-English; for groups studying in English - completing tasks in Russian or Kazakh</p> <p>*The deadline is determined by the teacher, as a rule - the day of border control</p> <p>** so, you can get the maximum 90 points, to get above 90-you need to show a result higher than expected</p>					

**EVALUATION SHEET
WHEN PERFORMING A SANDWICH TECHNIQUE.**

Full name of the student _____

Group _____

#	Criteria for evaluating steps	Level				
		Above one	Very Good	Acceptable	AcceptableRequires Correction and	Unacceptable
1.	Correctly carried out the preparation of the tooth for carrying out-mechanical cleaning of the tooth from plaque	10	8.5	7	5.5	0
2.	Correctly chose the shade of the restored tooth	10	8.5	7	5.5	0
3.	Correctly prepared the tooth according to the clinical case	10	8.5	7	5.5	0
4.	Correctly applied the cofferdam and matrix system, if necessary	10	8.5	7	5.5	0
5.	Correctly selected the material and performed the technique of applying the base pad	10	8.5	7	5.5	0
6.	Correctly selected the adhesive application puncture and demonstrated the technique	10	8.5	7	5.5	0
7.	Correctly selected the composite material and demonstrated the technique of applying	10	8.5	7	5.5	0
8.	Correctly evaluated the quality of restoration and	10	8.5	7	5.5	0
9.	Correct correction of static and dynamic occlusion.	10	8.5	7	5.5	0
10.	I did the restoration finishing correctly.	10	8.5	7	5.5	0
	Total	100	85	70	55	0

**EVALUATION SHEET
WHEN FINISHING A RESTORATION**

Full name of the student _____

Group _____

Step	Evaluation Criteria	Level				
		Excellent	Very Good	Lemo Intake	Requires Correction and	Unacceptable
1.	I chose the right tools for contouring angular lines, profiling the vestibular surface, and forming macrotexture details	10	8.5	7	5.5	0
2.	I chose the right tools for contouring the horizontal macrotext in the cervical third of the tooth.	10	8.5	7	5.5	0
3.	I chose the right tools for contouring microtextures (perikimats) and vertical microtextures.	10	8.5	7	5.5	0
4.	Correctly selected tools for smoothness of the surface (silicone polishes)	10	8.5	7	5.5	0
5.	Correctly selected tools for surface gloss (rubber polishes)	10	8.5	7	5.5	0
6.	Correctly selected tools for surface brightness (Silicon carbide brushes)	10	8.5	7	5.5	0
7.	I chose the right tools for surface smoothing (Sof-Lex Diamond Spiral (3M ESPE) or ShapeGuard (Coltèe ne).)	10	8.5	7	5.5	0
8.	Correctly selected polishing pastes	10	8.5	7	5.5	0
9.	Followed the sequence when using polishing systems	10	8.5	7	5.5	0

10.	I evaluated the quality of the finished restoration	10	8.5	7	5.5	0
	Total	100	85	70	55	0

EVALUATION SHEET
Drawing up a plan (algorithm) for tooth restoration

	Criteria	Proficiency				
		level Excellent	Very good	Acceptable	Requires correction	Unacceptable
1	Correctly assessed the condition of the tooth, identified problems (caries, chips, cracks, discoloration) and the need for treatment.	10	8.5	7	5.5	0
2	Correctly identified the type of restoration	10	8.5	7	5.5	0
3	Performed professional hygiene	10	8.5	7	5.5	0
4	Selected the appropriate composite material.	10	8.5	7	5.5	0
5	Selected the correct method of anesthesia if necessary	10	8.5	7	5.5	0
6	The working surface of the tooth is properly treated with appropriate antiseptic preparations.	10	8.5	7	5.5	0
7	The doctor applies the composite material in layers, simulating the shape of the tooth.	10	8.5	7	5.5	0
8	Each layer is polymerized (solidified) under the influence of a special lamp.	10	8.5	7	5.5	0
9	Correctly finished the restoration	10	8.5	7	5.5	0
10	Correctly selected the tools for polishing the restoration	10	8.5	7	5.5	0
11	Total	100	85	70	55	0

LEVEL OF COMPETENCE DEVELOPMENT

I – know (hear, read)

II-know how (practical rules and procedures)

III-follow and comment on how to do

IV-Diagnose and treat

V - Be able and apply

In the discipline - Aesthetic dentistry		
	Competence	Level
To know	the treatment of the dentist's hands	II
	Preparation for the operation of the dental unit	II
	Duties of the doctor, medical	staff II
	Duties of the patient	II
	Indications and contraindications for restoration	II
	Practical rules and procedures for performing restoration	II
To know how	to develop students ' communication skills with colleagues, patients and parents based on effective verbal and non-verbal communication methods	
	Features and demonstrate dental preparation skills depending on the intensity of the carious process and the restoration method	II
Perform and comment on how to do	the restoration color selection Technique	III
	Explain rights and get consent for the procedure or intervention	III
	Demonstrate knowledge of aesthetic restoration tools and skills	III
	Demonstrate effective verbal and non verbal communication	skills III
	Demonstrate skills in master the techniques of selecting the color of restored teeth	IV
Diagnose and treat	Conduct a patient examination	IV

	Perform under direct control on a standardized patient	IV
		IV
Be able and apply	Master the skills of restoring the shape of teeth in various pathologies of carious and non carious origin and the ability to choose the right materials for restorations	V

Appendix 1.

Syllabus Introduction Sheet с силлабусом

Full	name	Date of review	Signature
1.			
2.			
3.			
4.			
5.			
6.			
7.			