



Кафедра «Терапевтической и детской стоматологии»  
Образовательная программа

044/74-  
1стр. из 25



### EDUCATIONAL PROGRAM

Code of the EP:6B10103

Title of the educational program: Dentistry

Level of the educational program: bachelor's degree

Shymkent



Кафедра «Терапевтической и детской стоматологии»  
Образовательная программа

044/74-  
2стр. из 25

The educational program was developed by the members of the "Dentistry" EPC

Agreed with employers:

Director of the clinic "Elite-Stom", PhD, dentist of the highest category Н. Шанкулов К.А.

Said-Dent LLP dental clinic Рашидов С.Н.

Chairman of the "Dentistry" EPC Шукпаров А.В.

Minutes No. of 11 18 08 2022.

Approved by the Methodological Council

Vice-Rector for EMW Анартыева М. У.

Minutes No 5 of 08 08 2022.

Approved by the Academic Council

Minutes No 5 of 08 08 2022.



ОҢТҮСТІК ҚАЗАҚСТАН <b>MEDISINA</b> <b>AKADEMIASY</b> «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN <b>MEDICAL</b> <b>ACADEMY</b> АО «Южно-Казахстанская медицинская академия»
Кафедра «Терапевтической и детской стоматологии»		044/74-
Образовательная программа		3стр. из 25

### **Passport of the educational program 6B10103 "Dentistry"**

#### **1. Normative documents for the development of a modular educational program (state standards of education, professional standards (if any), etc.)**

- Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI SAM. "On the health of the people and the healthcare system."
- Law of the Republic of Kazakhstan "On Education" No. 389- III dated 07.07.2007 with amendments and additions dated 07.07.2020 No. 501-V.
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152 "On approval of the Rules for the organization of the educational process on credit technology of education" (with amendments and additions as of 10.10.2022)
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated January 21, 2021 No. 30 On Amendments to the Order of the Acting Minister of Education and Science of the Republic of Kazakhstan dated January 06, 2020 No. 1 "On Approval of the Strategic Plan of the Ministry of Education and Science of the Republic of Kazakhstan for 2020-2024"
- Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated July 20, 2022 No. 2. Registered with the Ministry of Justice of the Republic of Kazakhstan on July 27, 2022 No. 28916 On Approval of State mandatory Standards of higher and Postgraduate Education
- On the approval of state mandatory standards for the levels of education in the field of healthcare. Order of the Minister of Health of the Republic of Kazakhstan dated July 4, 2022 No. KR DSM-63. Registered with the Ministry of Justice of the Republic of Kazakhstan on July 5, 2022 No. 28716
- On approval of the nomenclature of specialties and specializations in the field of healthcare, the nomenclature and qualification characteristics of positions of healthcare workers. Order of the Minister of Health of the Republic of Kazakhstan dated December 21, 2020 No. KR DSM-305/2020. It was registered with the Ministry of Justice of the Republic of Kazakhstan on December 22, 2020 No. 21856.
- SSO RK 05.05.001-2005 Coding system of academic disciplines of higher and postgraduate education.
- Order of the Minister of Health of the Republic of Kazakhstan dated January 30, 2008 No. 27 "On approval of lists of clinical specialties of internship and residency training" (with amendments and additions as of 08/02/2019)
- Order of the Acting Minister of Education and Science of the Republic of Kazakhstan dated April 28, 2021 No. 189. Registered with the Ministry of Justice of the Republic of Kazakhstan on April 30, 2021 No. 22667 "Standard rules for conducting ongoing monitoring of the progress of intermediate and final attestation of students in higher educational institutions"
- On amendments and additions to the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 30, 2018 No. 595 "On approval of Standard Rules for the activities of educational organizations of appropriate types". Order of the Acting Minister of Education and Science of the Republic of Kazakhstan dated December 29, 2021 No. 614. Registered with the Ministry of Justice of the Republic of Kazakhstan on December 30, 2021 No. 26280

ОҢТҮСТІК ҚАЗАҚСТАН <b>MEDISINA</b> <b>AKADEMIASY</b> «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN <b>MEDICAL</b> <b>ACADEMY</b> АО «Южно-Казахстанская медицинская академия»
Кафедра «Терапевтической и детской стоматологии» Образовательная программа		044/74- 4стр. из 25

- On amendments to the Order of the Minister of Education and Science of the Republic of Kazakhstan dated November 29, 2007 No. 583 "On approval of the Rules for the organization and implementation of educational, methodical and scientific-methodical work". Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated September 23, 2022 No. 78. Registered with the Ministry of Justice of the Republic of Kazakhstan on September 27, 2022 No. 29835

- Internal regulatory documents of SKMA JSC.

**2. Field of professional activity:** the field of professional activity of graduates who have mastered the educational program 6B10103

"Dentistry" includes public health protection by providing medical care to both adults and children.

**3. Objects of professional activity:**

- population (adults and children)

**types of professional activity:**

- therapeutic, preventive and diagnostic;

- organizational and managerial;

- scientific research;

- pedagogical;

**Annex 1**

**Application form «Inclusion of OP in the Register»**

№	Field name	Note
1	Registration number	6B10100041
2	Education area code and classification	<b>6B10 Dentistry</b>
3	Code and classification of training areas	<b>6B10 Dentistry</b>
4	Group of educational programs	<b>B087</b>
5	Name of educational program	<b>Dentistry</b>
6	Look OP	New OP
7	The purpose of the OP	Training of general practice dentists capable of providing qualified assistance based on modern medical technologies for the diagnosis, treatment and prevention of diseases in patients of various age groups.
8	A-level ISCED	<b>6</b>
9	The level on the NQF	<b>6</b>
10	Level ORC	<b>6</b>
11	Distinctive features of OP	No;
	The UNIVERSITY partner (SOP)	-
	The UNIVERSITY partner (of DOP)	-
12	List of competences	1. Medical knowledge 2. Communication 3. Clinical skills 4. Professionalism 5. Personal professional development 6. Regulatory and legal knowledge 7. Research
13	Learning outcome	LO1 Treats major dental diseases in patients of all ages and categories.



		<p>LO2 Observes the principles of medical ethics and deontology and be ready to implement ethical and deontological aspects of medical activity in communication in three languages with colleagues, nurses and Junior staff, patients and their relatives and forms of methods of psychological and pedagogical persuasion for patients of different age groups.</p> <p>LO3 Conducts prevention of major dental diseases in patients of any age.</p> <p>LO4 Use of modern technology, management and marketing in their professional activities, carries out analysis of the quality and effectiveness of their work. Knows and complies with the principles of organizational and management activities. Owns the implementation of the OSMS.</p> <p>LO5 Provides emergency medical care, including first aid and intensive care to patients of all ages.</p> <p>LO6 Demonstrates basic and clinical knowledge for the diagnosis of major dental diseases in adults and children. Demonstrates knowledge of the features of dental diseases in pregnant women.</p> <p>LO7 It uses digital technologies in the diagnosis, treatment and organization of dental services.</p> <p>LO8 Applies scientific principles, methods and knowledge in medical practice and research. Capable of continuous self-education and development.</p>
14	Form of training	Intramural
15	Language of instruction	Kazakh, Russian
16	Volume of credits	<b>300</b>
17	Academic degree awarded	Bachelor degree Internship
18	Availability of an Annex to the license for the direction of training	NKZ36LAA00011387
19	Availability of accreditation of OP	yes
	The name of the accreditation body	- NU«Independent Agency for Accreditation and Rating»
	The period of validity of accreditation	21.12.2018 - 20.12.2023гг.
20	Information about disciplines	Data on disciplines VK/KV OOD, DB, PD (Appendix 2.2)



**Annexes 2.0**

**MATRIX**

**of correlation of learning outcomes with the formed competencies according to the educational program 6B10103 "Dentistry"**

	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8
KK1	x	x	x	x	x	x	x	x
KK2		x	x			x	x	
KK3		x			x			
KK4					x	x	x	x
KK5			x	x	x	x		
KK6		x			x	x	x	x
KK7			x			x	x	x

**Learning outcome**

**Annexes 2.1**



KC 1	Synthesis of professional or scientific medical knowledge (including innovation) of the basic category of complexity of qualified medical care of medical activity. Evaluation and selection of professional information. The creation of new knowledge applied in medical practice. Identification of sources and search for information necessary for the development of medical activities.
KC 2	Solving the problems of the basic category of complexity of qualified medical care in the medical field of activity, technological or methodological nature, requiring the development of new approaches, the use of a variety of methods (including innovative).
KC 3	Correction of the activities of a health unit or organization
KC 4	Skills and abilities to scientifically justify the setting of goals and the choice of methods and means to achieve them.
KC 5	The implementation of the underlying complexity of the qualified medical aid medical field of activity.
KC 6	Definition of strategy of rendering the qualified medical care to the population of the second category of complexity.
KC 7	Make decisions and be responsible for the result of the provision.
KC 1	Synthesis of professional or scientific medical knowledge (including innovation) of the basic category of complexity of qualified medical care of medical activity. Evaluation and selection of professional information. The creation of new knowledge applied in medical practice. Identification of sources and search for information necessary for the development of medical activities.
KC 2	Solving the problems of the basic category of complexity of qualified medical care in the medical field of activity, technological or methodological nature, requiring the development of new approaches, the use of a variety of methods (including innovative).
KC 3	Correction of the activities of a health unit or organization
KC 4	Skills and abilities to scientifically justify the setting of goals and the choice of methods and means to achieve them.
KC 5	The implementation of the underlying complexity of the qualified medical aid medical field of activity.
KC 6	Definition of strategy of rendering the qualified medical care to the population of the second category of complexity.
KC 7	Make decisions and be responsible for the result of the provision.



## Annexes 2.2

### Content of disciplines

LO 1	Treats major dental diseases in patients of all ages and categories.
LO 2	Observes the principles of medical ethics and deontology and be ready to implement ethical and deontological aspects of medical activity in communication in three languages with colleagues, nurses and Junior staff, patients and their relatives and forms of methods of psychological and pedagogical persuasion for patients of different age groups.
LO 3	Conducts prevention of major dental diseases in patients of any age.
LO 4	Use of modern technology, management and marketing in their professional activities, carries out analysis of the quality and effectiveness of their work. Knows and complies with the principles of organizational and management activities. Owns the implementation of the OSMS.
LO 5	Provides emergency medical care, including first aid and intensive care to patients of all ages.
LO 6	Demonstrates basic and clinical knowledge for the diagnosis of major dental diseases in adults and children. Demonstrates knowledge of the features of dental diseases in pregnant women.
LO 7	It uses digital technologies in the diagnosis, treatment and organization of dental services.
LO 8	Applies scientific principles, methods and knowledge in medical practice and research. Capable of continuous self-education and development.

№	Name of discipline	Short description of the discipline (30-50 words)	Cycle	Component	Credits	LO of EP
<b>Cycle of general education disciplines</b>						
<b>Compulsory component</b>						
1	History of Kazakhstan	Ancient people and the formation of a nomadic civilization. The formation of the Turkic statehood. Stages of ethnocultural integration of Turkic-speaking peoples, the formation of the Kazakh Khanate (XIII-XV centuries). Kazakhstan in Modern times. Kazakhstan in the Soviet period. The history of independent Kazakhstan.	GED	CC	5	LO5 LO8
2	Fundamentals of law and Economics	Fundamentals of Law and Economics Legal education and development anti-corruption culture of future professionals within state the "Ruhani zhangyru" ". The legal status of medical workers, their social security. Code of the Republic of Kazakhstan "On the health of the people and the health care system". Market and competition. Theory firms and entrepreneurship. Development features national economy in Republic of Kazakhstan. State policy in development of medical industry.	GED	EC	5	LO2 LO4 LO8
3	Philosophy	Philosophy as a science. Philosophy and worldview. The origin and essence of consciousness. Knowledge as a problem of philosophy. Education, science, technology. Society and culture. Religion and philosophical knowledge. The role of philosophy in the implementation of the third modernization of modern Kazakhstan. Civilizational identification of Kazakhstan in the global world	GED	CC	5	LO2 LO4 LO8

4	Psychology and cultural studies	Psychology as science. Emotions and volitional processes. Suicidal behavior youth. Individual-typological of personality. Values, interests, norms of personality. Interpersonal communication factor the development of Kazakhstani. Morphology and language of culture. Semiotics and anatomy of culture. Cultural heritage of nomads. Kazakh culture the context modern world processes. Cultural policy of Kazakhstan.	GED	CC	4	LO5 LO8
5	Sociology and political science	Sociology is the science of society. Individual and society. Sociological research. Family and modernity. Education and social inequality. Health and medicine. Politics and society. Elite and political leadership. State and civil society. Political culture and behavior. Political conflicts and crises. World politics and modern international relations.	GED	CC	4	LO5 LO7 LO8
6	Foreign language	Expansion of lexical minimum, mastering grammatical forms and constructions at the level of their use in speech. Mastering the lexical and terminological minimum in the specialty of dentistry: in the dental clinic, in dental surgery, the structure of the teeth, the first and second dentition, oral cavity, dental service in our country, the causes of caries, pulpitis, acid resistance, fillings, crowns, tool tips.	GED	CC	10	LO5 LO7 LO8
7	Kazakh (Russian ) language	Phonetic, orthoepic, spelling, punctuation, stylistic norms of modern Kazakh (Russian) language. Basic concepts of lexicology, phraseology, morphology, syntax, style. Written and oral business communication in the medical field. Terminology. Ethics and etiquette of business speech and professional communication. Specialty language and professional culture of the doctor's speech. Construction of different types of monologues, dialogues, polylogues, speech etiquette.	GED	CC	10	LO5 LO7 LO8
8	Information and communication technology	An ICT role in key sectors of development of society. Standards in the field of ICT. Computer systems. Architecture of computer systems. Software. Database systems. Data analysis. Networks and telecommunications. Cybersecurity. Internet	GED	CC	5	LO5 LO7 LO8

		technology. Cloud and mobile technology. Multimedia,smart technology. E-technology. Electronic government. Information technology in the professional sphere.				
9	Physical education	"Physical culture" is the formation of social and personal competence of students and the ability to purposefully use the means and methods of physical culture, ensuring the preservation, strengthening of health for training; to endure physical stress, neuropsychic stress and adverse factors in future employment	GED	CC	8	LO1 LO5
<b>Cycle of basic disciplines</b> <b>High school component/ Elective component</b>						
10	Molecular biology and medical genetics	Molecular genetic research methods are used to study the structure and functioning of the genetic material of cells (organisms) at the level of DNA molecules. The main stages of molecular analysis are: Isolation of the DNA molecule in its pure form; Fragmentation (division into separate parts) of the DNA molecule; Amplification (obtaining more copies) of DNA fragments;	BD	EC	5	LO6 LO8
11	Chemistry	Solutions. Composition of bone tissue and saliva. Acid-base balance occurring in the oral cavity. Surface phenomenon. Adsorption. The main principles of qualitative analysis used in the diagnosis and treatment of diseases occurring in the oral cavity. Biological role of organic compounds used in medicine.	BD	HSC	3	LO6 LO8
12	Biophysics	Biophysics of the cell. Biological membranes: structure, properties and ways of their study. Transport through biological membranes. Classification, General characteristics of medical devices. Medical and dental devices for therapeutic purposes. Direct and alternating electric current, electromagnetism, optical spectroscopy and radio spectroscopy. Radioactivity. X-rays. Application of x-rays in medicine and dentistry.	BD	HSC	4	LO6 LO8
13	Introduction to the profession	The purpose of the study introduction to the specialty: stages of development of dentistry, the organization of dental care in Kazakhstan. Main regulatory documents governing activities of the dental service. Dental clinic — structure and functions	BD	EC	5	LO 2 LO 4 LO 6

		The organization of the reception offices of the sick. Planning the work of a dentist. Sanitary and hygienic requirements for the organization of dental departments and offices Disinfection, pre-sterilization cleaning and sterilization in dental practice				
14	Study practice "Safe care"	"Nurse's assistant" - work and familiarization with the functions of the statistics Department and the functions of the registry Department Work in the Central disinfection unit to comply with the rules and requirements of antiseptics dental offices and filling in the relevant documents, the use of antiseptic solutions	BD	HSC	1	LO1 LO5
15	Basics of radiology	Radiation research methods in dentistry, radiation anatomy of teeth and maxillofacial area; principles of X-ray analysis, dental anomalies, inflammatory and other diseases of teeth and jaws. The authors set a task to help navigate the possibilities, indications and contraindications of modern methods of radiation examination and the principles of interpretation of images related to dentistry.	BD	EC	3	LO6 LO7
16	Anatomy	Subject of anatomy. General information about the skeleton. The structure of bones of the skull. Topography of the skull. Articulations of bones. General myology. Muscles of the head. Muscles of the neck. Digestive system. Organs of oval cavity. General anatomy of teeth. Special anatomy of teeth. Respiratory system. Urogenital system. Cardiovascular system. Lymphatic system. Nervous system. Endocrine system. Organs of senses.	BD	HSC	5	LO6 LO8
17	Physiology	Physiology of the dorsal, oblong, the back of the brain, research methods. Physiology of the middle, intermediate brain and cerebral cortex, research methods. Analyzers. Physiology of the heart. Physiology of the blood. Private physiology of endocrine glands. Digestion in the mouth and stomach. The role of the liver and pancreas in digestion. Physiology of the respiratory system. Functions of the skin, sweat and sebaceous glands.	BD	HSC	4	LO6 LO8
18	Histology	Cytology. Human embryogenesis. Tissues as a system of cells and their derivatives. Nervous system. Sense organs. The cardiovascular system. Bodies of blood formation and immunological protection. Endocrine system. Digestive	BD	HSC	3	LO6 LO8

		system. Respiratory system. Skin and its derivatives. Excretory system. The reproductive system.				
19	Microbiology and immunology	Microecology of the oral cavity. Violation of normal microflora and its correction. The concept of "immunity." Types of immunity. Factors of cellular and humoral body immunity. Pathologies of the immune system. Immunodeficiency states and their manifestations in dental practice. Study of taking material for the study of dental diseases. The effect of prosthetics on the microflora of the oral cavity. Characterization of the main biotopes of the oral cavity.	BD	HSC	4	LO3 LO6 LO8
20	Medical biochemistry	Biochemistry of proteins. Enzymes rational nutrition. Biological membranes. Bioenergy. Macromolecules's metabolism. Intermediates determination of carbohydrate, lipid. Nitrogen's metabolism in human biofluids. Biochemistry of hormones. Biochemistry of blood, liver, kidneys. Biochemistry of tissues: muscle, connective, bone, tooth. Biochemistry of the tooth, oral fluids. Biochemical changes in tooth tissues in pathology.pro	BD	HSC	5	LO6 LO8
21	Materials science in dentistry	This section describes the relationship between microstructure and physical and chemical properties of materials. In order to understand why different materials have different properties, and how these properties affect the use of materials, understand the properties of materials that are more relevant to their clinical application.	BD	EC	3	LO6 LO8
22	Fundamentals of therapeutic dentistry	Fundamentals of therapeutic dentistry studies: structure and functions of organs and tissues of the oral cavity. Oral mucosa.Salivary glands, saliva and oral fluid Teeth.Microflora of the oral cavity. Protective mechanisms of the oral cavity.Modern diagnosis of caries. Methods of examination of the patient. Treatment planning. Clinical examination.Laboratory testing methods.X-ray examination.Medical record	BD	HSC	5	LO2 LO3 LO6 LO7
23	Study practice "Clinical practice 1"	"The hygienist dental. Cabinet" List of works of industrial practice: dental examination of the patient, training of individual oral hygiene, identification of	BD	HSC	2	LO1 LO4 LO5

		surface formations on the teeth, selection of methods, objects and means of individual oral hygiene, controlled tooth cleaning, exogenous prevention of dental caries, dental education of the patient				
24	General hygiene	Environment and health. Hygienic value of the air environment. Hygiene of water and water supply and soil. Hygienic basis of planning and development of settlements. Food hygiene and human health. Occupational health and physiology. Hygiene of medical institutions. Prevention of nosocomial infection. Bases of the organization of sanitary and hygienic actions in wartime.	BD	EC	4	LO1 LO3 LO4 LO6
25	Public health and public health ethics	Basic concepts and definitions used in public health. The main types and forms of medical care to the population. Medical and social aspects and indicators of demography. Organization of dental care to the population. Carrying out preventive measures of diseases of teeth and gums. Theoretical foundations, origins and causes of ethics. Medical and ethical features of professional communication of dentists with patients.	BD	EC	3	LO2 LO6
26	Topographic anatomy of the head and neck	Anatomy of the skull. Bones of the facial skull. Functional and clinical anatomy of the upper and lower jaws. Temporo-mandibular joint. The topography of the skull. Muscles and fascia of the head and neck oral cavity. Arteries and veins of the head and neck. Lymph vessels and nodes of the head and neck. Cranial nerves. Somatic innervation of the maxillofacial region. Autonomic innervation of the maxillofacial region	BD	EC	4	LO2 LO3 LO6 LO8
27	Pathological anatomy	Pathogenesis and clinical and morphological manifestations in dental nosology: caries, non-carious lesions of hard tissues of teeth, pulpitis. Periodontal tissue diseases and periodontal disease, etiology and pathogenesis of inflammatory and dystrophic processes. Morphological characteristics of gingivitis and periodontitis, outcomes, complications. Odontogenne the pathogenesis of inflammatory diseases periodontitis, periostitis, osteomyelitis. Complications. Mediastenit. Sepsis. Benign and malignant neoplasms of the head and neck.	BD	HSC	5	LO3 LO6 LO7 LO8
28	Pathological physiology	General etiology, pathogenesis and morphogenesis. Pathological reactivity. The role of heredity in pathology. General pathology of the cell. Cell damage. General	BD	HSC	5	LO3 LO6

		reactions of organism on a damage. Violations of water-electrolyte metabolism, acid-base state, energy and basic metabolism. Violations of protein, carbohydrate, fat metabolism. Dystrophies. Hypoxia. Peripheral circulatory disorders. Inflammation. Fever. Allergy. Tumors.				LO7 LO8
29	Pharmacology	General laws of pharmacodynamics and pharmacokinetics of drugs. The primary pharmacological reactions. General principles of registration of recipes and composing prescription prescriptions. Calculation of doses and concentrations of drugs. Classification of drugs. Comparative assessment of pharmacological properties of anesthetics: anesthetic activity, effect on the Central nervous system, the ability to penetrate the mucous membranes, toxicity. Adverse reactions of drugs, methods of prevention and correction of side effects.	BD	HSC	5	LO3 LO5 LO8
30	Propedeutics of internal diseases	Subjective (interrogation) and objective examination (palpation, percussion and auscultation). Understanding the basics of semiotics and syndromology. Justify the need for collected materials. Filling out medical records. Laboratory and instrumental research planning. The basics of communication in communicating with a patient in dental practice.	BD	HSC	6	LO1 LO3 LO4 LO6
31	Propedeutics of children's diseases	Anatomical and physiological features of the child's body. Methods of investigation and semiotics of the major defeats Nervous system and neuro-psychical development Sense organs.Skin and subcutaneous tissue.Muscular system,bone system.Respiratory,digestive and urinary organs and urination.Cardiovascular system.Blood and hematopoiesis.Features of immunity in children.Endocrine system in children	BD	HSC	5	LO2 LO3 LO6
<b>Cycle of profile discipline</b>						
<b>High school component/ Elective component</b>						
32	Cariesology and non-carios lesions of the hard tissues of the tooth	Modern understanding of the cause of dental caries Pathological anatomy of dental caries Classification, diagnosis, clinical manifestation of dental caries and treatment. Basic principles of preparation of hard tooth tissues	PD	HSC	5	LO1 LO2 LO3 LO6 LO8



		Preparation and filling of cavities of different classes Filling of teeth with composite materials of non-carious origin.				
33	Prevention of dental diseases	Etiological and pathogenetic substantiation of the main directions of prevention of dental diseases Hygienic education of the population Methods of prevention of major dental diseases Dental preventive programs	BD	EC	4	LO1 LO2 LO3 LO7 LO8
34	Periodontics	Classification of periodontal diseases. Structure of periodontal tissues. Functions of the periodontium, Etiology of periodontal diseases. Morphogenesis of periodontal disease. Methods of examination and diagnosis of periodontal disease. Clinical picture of periodontal disease. Treatment of periodontal disease. Organization of medical and preventive care for patients with periodontal diseases.	BD	EC	5	LO 1 LO2 LO3 LO7 LO8
35	Clinical endodontics	Methods of instrumental processing of root canals Standard technique The technique of "Step-Back" , "Step Down" Coronal-apical methods. Technique "Crown Down" (from crown down). Errors and complications arising in the process of instrumental root canal treatment Medications used in endodontics Disease of the pulp and periodontium, classification, choice of method and treatment planning; pain in endodontic procedures; creating endodontic access; radiological methods of investigation of the root canal; chemomechanical root canal preparation; root canal obturation; tooth restoration after endodontic treatment; evaluation of the results of endodontic treatment.	PD	HSC	4	LO 1 LO2 LO3 LO7 LO8
36	Work practice "Clinical practice 2"	"Dental assistant." Preparation of dental equipment for operation, control of serviceability, correct operation, safety. Instrumental examination of teeth and pathological dentogingival pockets, determination of the degree of mobility of teeth, examination of soft and hard tissues of the maxillofacial area . First aid for injuries and thermal injuries of	BD	HSC	5	LO2 LO3 LO4

		the maxillofacial area. Local and conduction anesthesia. Timely and quality maintenance meditsinkoy documentation.				
37	Internal disease	Rheumatoid arthritis. Osteoarthritis Gout. Systemic lupus erythematosus, scleroderma Seronegative spondyloarthropathy. Acute rheumatic fever. Chronic heart disease Rheumatic heart disease. Idiopathic inflammatory myopathy. Cardiology.Arterial hypertension Acute and chronic heart failure. Arrhythmias of heart blockade. Myocarditises. Pericarditises Congenital heart defects in adults. Hematology. Deficiency anemia. Acute leukemia Chronic myeloid and lymphocytic leukemia	PD	EC	4	LO1 LO2 LO3
38	Neurology, psychiatry and narcology	Symptoms and syndromes of lesion of motor pathways and the extrapyramidal system. Sensitivity and her disorders. Afferent systems of the face and oral cavity. Cranial nerves V and VII pairs, defeat syndromes. Features of vegetative innervation of the face and mouth, symptoms of defeat. Treatment and prevention. Introduction to psychiatry. General psychopathology. Affective disorder, schizophrenia. Alcoholism, drug addiction, substance abuse. Clinic, diagnosis and treatment. Features of the work of a dentist in a psychiatric clinic Research features and methods diagnosis of substance abuse. Addiction syndrome. Alcoholism. Stage of alcoholism. Metacholine psychosis. Organization of social assistance, organization of legal assistance to drug addicts, social responsibility.	PD	EC	4	LO2 LO3 LO5
39	Infectious diseases, dermatology and phthisiology	Classification of infectious diseases. Syndromes of infectious diseases. Fever. Exanthemata. Diarrheal syndrome Lesions of the oropharynx. Lymphoproliferative syndrome. Neuropsychiatric syndromes Acute vascular insufficiency syndrome (shock syndrome). Diagnosis of infectious diseases. Principles of treatment of infectious patients. Psychodermatological disorders Dermatitis. Eczema.Neurodermatoses Skin itch.Atopic dermatitis Urticaria. Psoriasis. Skin lesions in connective tissue diseases Systemic and localized forms of lupus erythematosus. Systemic scleroderma, systemic sclerosis. Morphea Dermatomyositis.Bullous dermatoses Angiitis (vasculitis) of the skin. Diseases of the oral mucosa and lips. Seborrheic dermatitis. Epidemiology of dental diseases. The section of dentistry that studies the prevalence and intensity of dental diseases. Epidemiological data are	BD	EC	3	LO1 LO3 LO5 LO6

		needed to describe the clinical picture, study the patterns and trends of pathology, determine the need for treatment, prevention in order to predict the incidence, organization and planning of dental care to the population.				
40	Oral surgery-1	The basis of surgical dentistry studies its content, the relationship with other medical disciplines and stages of development. Organization of surgical dental care to the population. Organization of polyclinic surgical dental care to the population, in the hospital. Features of surgical interventions in the maxillofacial area A survey of surgical dental patient	PD	HSC	5	LO1 LO2 LO4 LO5 LO7
41	Oral surgery-2	Operations on the bone tissues of the jaws. Preoperative interventions in the oral cavity are aimed at eliminating changes and studying: bone tissues of the jaws; soft tissues — mucosa, periosteum, muscle bundles, outgoing or attached to the jaws; peripheral branches of the trigeminal nerve. The plastic of the alveolus of an extracted tooth. A simple plastic socket Reduction and removal of the mylohyoid line	PD	HSC	5	LO1 LO2 LO4 LO5 LO7
42	Propedeutics of prosthetic dentistry	History of prosthetic dentistry. Organization of orthopedic dental care to the population. Medical documentation in the clinic of orthopaedic dentistry. Functional anatomy of the masticatory-speech apparatus. Basic and additional methods of examination of orthopedic patients. General symptomatology of diseases of the dentoalveolar system requiring orthopedic treatment. Types of dentures and their characteristics. The technique of permanent dentures	BD	HSC	5	LO1 LO2 LO3 LO4 LO7
43	Propedeutics of pediatric dentistry	Classification of periodontitis and periodontal Instruments for root canal preparation. Irrigation of root canals. Determination of the working length of the teeth. Preparation of the root cavity of the tooth Tools and materials used for root canal obturation. Methods of root canal obturation. Features of endodontic technique in children. Physical methods used for the diagnosis and treatment of teeth. Idiopathic diseases with progressive lysis of periodontal tissues	PD	HSC	5	LO2 LO3 LO4 LO7
44	Inflammatory diseases and injuries of maxillofacial area	Odontogenic inflammatory processes are studied: periostitis, osteomyelitis, alveolitis, phlegmon, abscess. Trauma of the upper and lower jaw, nose fracture, facial trauma: Etiology, pathogenesis, diagnosis, differential diagnosis, treatment	PD	HSC	5	LO1 LO2 LO3

		and splinting. Assistance to victims with trauma of the maxillofacial region. Complications of jaw fractures, their prevention and treatment. Examination of temporary disability in fractures of the jaws				LO5 LO7
45	Work practice "Clinical practice 3"	"Assistant of children's dentist and dentist-orthopedist" Instrumental examination of teeth and pathological dentogingival pockets, determination of the degree of mobility of teeth, examination of soft and hard tissues of the maxillofacial area. Determination of CPITN index, the Communist party. Selection of cast materials and cast spoons to remove the impression from the upper and lower jaws. Casting model. Determination of chewing efficiency by Aganov.	PD	HSC	5	LO4 LO5 LO6 LO7 LO8
46	Propedeutics of orthodontics	Organization of orthodontic dental care. Concepts of norm and pathology in orthodontics Methods of examination of an orthodontic patient Clinical functional tests Biometric and graphical methods of study models of the jaws Studies of the functional state of the dentition. Anomalies and deformities of teeth, dentition and jaws. Classification. Orthodontic devices and their manufacturing methods. Edgeways technique	PD	HSC	5	LO2 LO3 LO4 LO7 LO8
47	Removable prosthetics	History of prosthetic dentistry. Organization of orthopedic dental care to the population. Medical documentation in the clinic of orthopaedic dentistry. Functional anatomy of the masticatory-speech apparatus. Basic and additional methods of examination of orthopedic patients. General symptomatology of diseases of the dentoalveolar system requiring orthopedic treatment. Types of dentures and their characteristics.	PD	HSC	5	LO2 LO3 LO4 LO7 LO8
48	Non- removable prosthetics	Classification of defects of hard tissues of teeth, defects and deformations of dentition. Methods of prosthetics of defects of hard tissues of teeth, included defects. Indications and contraindications to non-removable prosthetics. Indirect restoration techniques. Techniques of preparation for various types of crowns and dental bridges.	PD	HSC	5	LO2 LO3 LO4 LO7 LO8

49	General surgery	History of surgery. Asepsis. Antisepsis. General questions of anesthesiology. Bleedings. Blood loss. Blood group. Rhesus factor. Transfusion. Terminal state. Traumatic shock, collapse, fainting. Fractures and dislocations of limbs. Dressing. Transportation. Wounds. Electric trauma. Burns. Frostbites. Operation. Surgical infection. Sepsis. Osteomyelitis. Specific surgical infection. Necrosis, gangrene, fistula. Malformation. Plastic surgery. Parasitic disease. Case history.	BD	EC	4	LO1 LO3 LO5 LO7 LO8
50	Otorhinolaryngology	Diseases of the outer and middle ear. Inflammation of the middle ear. Otogenic intracranial complications. Non-purulent ear diseases. Injuries, diseases of the nose and paranasal sinuses. Rhinogenic orbital and intracranial complications. Injuries and diseases of the pharynx. Adenoid vegetation, chronic tonsillitis, hypertrophy of the Palatine tonsils. Injuries and diseases of the larynx. Laryngeal quinsy, abscess of the epiglottis.	BD	EC	3	LO1 LO3 LO5 LO7
51	Obstetrics Gynecology	Organization of women's health protection in the Republic of Kazakhstan. A doctor of any specialty should help with emergency conditions, this is especially important in obstetrics, where the life of the mother and fetus depend on the speed and skill of the doctor. Treatment of dental diseases, taking into account the obstetric and gynecological status in the presence of concomitant obstetric and gynecological pathology; emergency care for pregnant women, women in labor, maternity hospitals. The role of the dentist in the prevention of dental diseases in women, the influence of pregnancy and childbirth on the development of pathology of the dental system in children. Odontogenic infection in the development of purulent-septic complications in pregnant women and maternity patients. Critical periods of pregnancy, stages of embryo/fetus development; changes occurring in a woman's body during pregnancy. Complicated course of pregnancy (early toxicosis, gestosis, anemia, infections).	BD	EC	3	LO1 LO3 LO5
52	Diseases the mucous membrane of the oral cavity	Diseases of the oral mucosa, stomatitis, glossitis and their classification Traumatic, allergic, infectious lesions of the oral mucosa. Etiology, pathogenesis, differential diagnosis, treatment Diseases with autoimmune component of pathogenesis	PD	HSC	5	LO1 LO2 LO3 LO7



		Changes in the oral mucosa in the pathology of various organs and systems of the body, as well as metabolic disorders				
53	Neurostomatology and traumatology of the maxillofacial region	Neurostomatologic disease Clinical variants of prosopalgia. Facial pain, psychogenic pain, hectic pain. Survey methodology in neurostomatologic diseases. Studies of somatoneurological status. Classification of trigeminal neuralgia, etiology, pathogenesis, dif. diagnostics. General principles of treatment of trigeminal neuralgia.	PD	HSC	5	LO1 LO2 LO3 LO8
54	Oncology dentistry	The concept of cancer alertness. Tumors and polypodine education classification. Odontogenic tumors.Cysts of the jaws. Precancerous diseases of the oral mucosa. Cancer of the mucous membrane of the mouth, tongue, lower lip, upper and lower jaws , statistics. Risk factor. Metastezirovanii and cancer recurrence. Conservative and operative methods of treatment.	BD	HSC	4	LO1 LO2 LO3 LO8
55	Pediatric therapeutic and surgical dentistry-1	Peculiarities of examination of children at the clinic of therapeutic dentistry. The order of examination, timing of teething. Non-carious lesions of hard tissues of teeth Pulpitis and periodontitis of teeth in children Periodontal disease in children Tooth extraction surgery, odontogenic and non-ontogenic inflammatory processes. Diseases of the salivary glands Diseases of the temporomandibular joint	PD	HSC	5	LO2 LO3 LO4 LO7 LO8
56	Pediatric therapeutic and surgical dentistry-2	Congenital malformations of the face, congenital cleft upper lip and palate, etiology, pathogenesis and classification. Clinic, diagnosis, treatment, medical rehabilitation and prevention of congenital malformations in children. Cheiloplasty, uranoplasty. Methods of plastic surgery for complete unilateral and bilateral cleft alveolar process and palate	PD	HSC	4	LO2 LO3 LO4 LO7 LO8
57	Clinical orthopaedic dentistry-1	Restoration of an edentulous jaw Anatomical casts (impressions). Methods of fixation of prostheses. Individual spoons. Defining the Central relationship of the jaws. Construction of artificial dentition. Check the design of prostheses. Prostheses with metal base. Adaptation to partial dentures	PD	HSC	5	LO2 LO3 LO4 LO7 LO8

		Rebasing of partial dentures. Repair of plastic prostheses Prostheses with double-layer basis				
58	Clinical orthopaedic dentistry-2	Determination of functional pathology of the dentition. The main groups of lesions in functional pathology of the dentoalveolar system. The state of the dentition in partial lesions of the dentition. Secondary partial adentia. Development of deformation in the dentoalveolar system in secondary partial adentia. Examination of individual teeth. Odontoparodontogram. Determination of the functional state of the dental system on the basis of odontoparodontogram. Basics of orthopedic treatment for secondary partial adentia.	PD	HSC	4	LO2 LO3 LO4 LO7 LO8
59	Work practice: "Clinical practice 4"	Organization of surgical dental care. Examination of patients and filling out medical documentation. Surgical interventions and manipulations in surgical dentistry. Anesthesia. Outpatient operations (resection of the top of the tooth root, hemisection, root amputation, replantation) Medical and physical treatment of patients with inflammatory diseases of the maxillofacial region. Performing dressings.	PD	HSC	3	LO2 LO4 LO5
60	Reconstructive surgery of maxillofacial area	The history of the development of plastic surgery. Classification of defects and deformities of the maxillofacial region. General principles of reconstructive surgery. Autoplasty, alloplasty, xenoplasty, implants, combined autoalloplasty, blepharoplasty	PD	HSC	5	LO2 LO3 LO4 LO7 LO8
61	Dental implantology	Periosteum. The structure of bone tissue. Histological types of bone tissue. Bone macrostructure Macrostructure of jaws. Bone regeneration Reparative regeneration. Physiological regeneration Bone healing by primary and secondary tension Hormonal regulation of vital functions of the bone Bone tissue response to functional load	PD	HSC	3	LO2 LO3 LO4 LO7 LO8



		The increase in functional load. The reduction of the functional load. Atrophy of the jaws. Osteoporosis The architectonics of the jaw bones				
62	Therapeutic dentistry	Inflammation of the pulp, periodontal. Structure and functions of periodontal tissues. Periodontal disease. Etiology of periodontal diseases. Morphogenesis of periodontal diseases. Methods of examination and diagnosis of periodontal diseases. Clinical picture of periodontal diseases. Conservative methods of treatment of periodontal diseases Organization of medical and preventive care for patients with periodontal diseases	PD	HSC	5	LO1 LO2 LO3 LO4 LO7 LO8
63	CHCL and medical law	The main prerequisites and principles of the introduction of compulsory medical insurance. The system of compulsory medical insurance. Participants of the compulsory social health insurance system. Sources of financing of the compulsory social health insurance system. Legislative documents regulating the activities of healthcare organizations. Legal bases of health protection of citizens of the Republic of Kazakhstan. The rights of a doctor in the field of healthcare, the rights of citizens, the rights of individual groups and patients.	PD	EC	5	LO2 LO4 LO8