

EDUCATIONAL PROGRAM

Code of the EP: 6B10101

Title of the educational program: General Medicine

Level of the educational program: Bachelor course

Shymkent



The educational program was developed by the members of the "General Medicine" EPC

Agreed with employers:

Chief Physician of ShMP №5  Seidalina Zh.M.

Chief Physician of MH №2  Rakhmataliyev A.M.

Chairman of the "General Medicine" EPC  Dosybayeva G.N.

Minutes No. of 10a 08.08 2022.

Approved by the Methodological Council

Vice-Rector for EMW Anartayeva M.U.

Minutes No. of 13 08.08 2022. 

Approved by the Academic Council

Minutes No. of 15 08.08 2022.

Passport of the educational program

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

Order of the Acting Minister of Education and Science of the Republic of Kazakhstan dated December 29, 2021 No. 614 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"

On amendments and additions to the Order of the Minister of Education and Science of the Republic of Kazakhstan dated March 18, 2008 No. 125 "On approval of Standard Rules for the ongoing monitoring of academic performance, intermediate and final certification of students for organizations of secondary, technical and vocational, post-secondary education" Order of the Minister of Education and Science of the Republic of Kazakhstan dated May 31, 2021 No. 248. Registered with the Ministry of Justice of the Republic of Kazakhstan on June 2, 2021 No. 22904

On amendments and additions to the Order of the Minister of Health of the Republic of Kazakhstan dated December 21, 2020 No. KR DSM-305/2020 "On approval of the nomenclature of specialties and specializations in the field of healthcare, nomenclature and qualification characteristics of positions of healthcare workers"

Order of the Minister of Health of the Republic of Kazakhstan dated March 16, 2021 No. KR DSM - 23. Registered with the Ministry of Justice of the Republic of Kazakhstan on March 17, 2021 No. 22349

On the approval of the 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 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 and methodological 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

On the approval of the State mandatory standards of preschool education and training, primary, basic secondary and general secondary, technical and vocational, post-secondary education

Order of the Minister of Education of the Republic of Kazakhstan dated August 3, 2022 No. 348. Registered with the Ministry of Justice of the Republic of Kazakhstan on August 5, 2022 No. 29031.

About the approval of the Rules of the organization of the educational process on credit technology of training

Order of the Minister of Education and Science of the Republic of Kazakhstan No. 152 dated April 20, 2011. Registered with the Ministry of Justice of the Republic of Kazakhstan on May 27, 2011 No. 6976.

On amendments and additions to the 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"

Order of the Minister of Education and Science of the Republic of Kazakhstan dated June 2, 2014 No. 198. Registered with the Ministry of Justice of the Republic of Kazakhstan on July 3, 2014 No. 9560

2. Field of professional activity: the field of professional activity of graduates who have mastered the educational program 6B10101

"General Medicine" includes the protection of public health by providing medical care to both adults and children.

3. Objects of professional activity:

healthcare management organizations;

healthcare organizations;

educational organizations;

organization of science;

organization of social protection;

adult and child population;

set of tools and technologies aimed at creating conditions for the protection of public health

types of professional activity:

- therapeutic, preventive and diagnostic;

- organizational and managerial;

- scientific research;

- pedagogical

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Appendix 1

General information

№	Field title	
1	Registration number	6B10100029
2	Code and classification of the field of education	6B10 Health and Social security (medicine)
3	Code and classification of training areas	6B101 Healthcare
4	Group of educational programs	B086 General Medicine
5	Name of the educational program	6B10101 General Medicine
6	Type of the EP	New EP
7	The purpose of the EP	Prepare a general practitioner who has a system of general cultural and professional competencies, capable and ready for independent activity
8	ISCED level	
9	NQF level	6
10	IQF level	6
11	Distinctive features of EP	No
	Partner University (CEP)	-
	Partner University (DDEP)	-
12	List of competencies	1. Synthesis of professional and scientific medical knowledge for the provision of qualified medical care
		2. Solving the problems of providing qualified medical care

		<p>3. Coordination of the activities of departments in healthcare organizations</p> <p>4. Scientific justification of goals, methods and means of achieving them</p> <p>5. Implementation of qualified medical care of the basic category of complexity</p> <p>6. Determination of a strategy for providing qualified medical care to the population of the second category of complexity</p> <p>7. Make decisions and be responsible for the result of providing qualified medical care</p>
13	Learning outcomes	<p>LO 1 Provides patient-centered care in the field of biomedical, clinical, epidemiological and socio-behavioral sciences for the most common diseases.</p> <p>LO 2 Carries out his/her activities within the framework of the legislation of the Republic of Kazakhstan in the field of healthcare, is guided by them in his/her practical activities to ensure optimal medical care.</p> <p>LO 3 Adheres to the rules of ethics, deontology and subordination, demonstrates interpersonal and communication skills that lead to effective information exchange and cooperation with patients, their families and medical professionals.</p> <p>LO 4 Conducts effective measures aimed at the diagnosis, treatment, prevention of common and early forms of diseases.</p> <p>LO 5 Performs professional duties, organizes self-monitoring and continuous improvement of his/her activities.</p>

		<p>LO 6 Supports continuous personal and professional growth, constantly improves the quality of medical care based on self-assessment and lifelong learning.</p> <p>LO 7 Applies scientific principles, methods and knowledge in medical practice and research. Capable of continuous self-education and development. Implements new methods into clinical practice.</p> <p>LO 8 Complies with the norms for the implementation of public health protection of the sanitary and hygienic regime of the health organization and epidemiological safety of the environment labor safety standards in the health organization.</p> <p>LO 9 Performs diagnostics, provides qualified and urgent medical care for urgent and life-threatening conditions</p> <p>LO 10 Works in electronic databases of the healthcare system of the Republic of Kazakhstan, provides documentation of the processes of providing medical services</p> <p>LO 11 Organizes medical and social assistance, conducts preventive and wellness activities among the population.</p>
14	Form of training	full-time
15	Language of instruction	Kazakh, Russian and English
16	Amount of credits	300
17	Awarded academic degree	Bachelor of Health
18	Availability of an appendix to the license for the direction of personnel training	KZ36LAA00011387
19	Availability of EP accreditation	Yes

ОҢТҮСТІК ҚАЗАҚСТАН
MEDISINA
AKADEMIASY



SOUTH KAZAKHSTAN
MEDICAL
ACADEMY

АО «Южно-Казakhstanская медицинская академия»

«Оңтүстік Қазақстан медицина академиясы» АҚ

Учебно-методический центр

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Title of the educational program: General Medicine

	Name of the accreditation body	“Independent Agency for Accreditation and Rating” IAAR, 09.06.2020
	Validity period of the accreditation	08.06.2023
20	Information about disciplines	Appendix

The content of the educational program
2. Learning outcomes in the educational program 6B10112 "Medicine"

Learning outcomes

LO 1	Provides patient-centered care in the field of biomedical, clinical, epidemiological and socio-behavioral sciences for the most common diseases.
LO 2	Carries out his/her activities within the framework of the legislation of the Republic of Kazakhstan in the field of healthcare, is guided by them in his/her practical activities to ensure optimal medical care.
LO 3	Adheres to the rules of ethics, deontology and subordination, demonstrates interpersonal and communication skills that lead to effective information exchange and cooperation with patients, their families and medical professionals.
LO 4	Conducts effective measures aimed at the diagnosis, treatment, prevention of common and early forms of diseases.
LO 5	Performs professional duties, organizes self-monitoring and continuous improvement of his/her activities.
LO 6	Supports continuous personal and professional growth, constantly improves the quality of medical care based on self-assessment and lifelong learning.
LO 7	Applies scientific principles, methods and knowledge in medical practice and research. Capable of continuous self-education and development. Implements new methods into clinical practice.
LO 8	Complies with the norms for the implementation of public health protection of the sanitary and hygienic regime of the health organization and epidemiological safety of the environment labor safety standards in the health organization.
LO 9	Performs diagnostics, provides qualified and urgent medical care for urgent and life-threatening conditions
LO 10	Works in electronic databases of the healthcare system of the Republic of Kazakhstan, provides documentation of the processes of providing medical services
LO 11	Organizes medical and social assistance, conducts preventive and wellness activities among the population.

- Appendix

Information about disciplines

	Name of the discipline	Brief description of the discipline (30-50 words)	Cycle	Component	Number of credits	Learning outcomes
Cycle of general education disciplines Compulsory component						
1	History of Kazakhstan	Ancient people and the formation of nomadic civilization. Formation of the Turkic statehood. Stages of ethno-cultural integration of the Turkic-speaking peoples, the formation of the Kazakh Khanate (XIII-XV centuries). Kazakhstan in modern times. Kazakhstan in the Soviet period. History of independent Kazakhstan.	GED	CC	5	LO1 LO7
2	Foreign language	Phonetic norms and grammatical forms and constructions of the modern English language. Mastering the lexical and terminological minimum in the specialty of a general practitioner. Development of educational and professional speech of a general practitioner: development of skills and abilities of reading, listening, note-taking of medical literature; compiling written texts on educational and professional topics.	GED	CC	10	LO3 LO6

3	Kazakh (Russian) language	Implementation of the correct choice and use of language and speech means to solve certain problems of communication and cognition based on knowledge of a sufficient amount of vocabulary, a system of grammatical knowledge; the use of information as a tool to influence the interlocutor in situations of cognition and communication; participation in communication in various situations of different spheres; drawing up everyday, socio-cultural, official business texts in accordance with generally accepted norms, functional orientation.	GED	CC	10	LO 3 LO 6
4	Information and communication technology	An ICT's role in key sectors of development of society. Software. Operating systems. Human-computer interaction. Database systems. Data analysis. Data management. Networks and telecommunications. Cybersecurity. Internet technology. Cloud, mobile technology. Multimedia, SMART technology. E-technology. Information technology in the professional sphere. Prospects of development of ICT.	GED	CC	5	LO1 LO3 LO10
5	Philosophy	Philosophy as a science. Philosophy and worldview. Role of philosophy in implementation of the third modernization in modern Kazakhstan. Origin and essence of consciousness. Cognition as a problem of philosophy. Education, science, engineering and technology. Society and culture. Religion and philosophical knowledge. Civilizational identification of Kazakhstan in a global world.	GED	CC	5	LO1 LO6

6	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 Kazakhstan. 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	LO1 LO3
7	Sociology and Political Science	The individual and society. Sociological research. Family and modernity. Education and social inequality. Health and medicine. Politics and society. Elite and political leadership. The State and civil society. Political culture and behavior. Political conflicts and crises. World politics and modern international relations.	GED	CC	4	LO1 LO3
8	Physical education	The basics of a healthy lifestyle. Athletics. National games: Arkan Tartu, kures, audarispak, etc. Short-distance running. Cross-training. Athletics. Relaxation exercises. Relay races. Outdoor games. Gymnastic. Adaptation to physical exercises at different age stages. Analysis of the system of physical culture in higher educational institutions.	GED	CC	8	LO1 LO4 LO8
<p>Cycle of general education disciplines Elective Component</p>						

9	Basics of law and Economics	The study of the totality of legal phenomena in the legal form and law enforcement practice. anti-corruption culture. Competition in the medical services market. The structure of the national economy.	GED	EC	5	LO1 LO2 LO3
10	Ecology and life safety	The place and role of ecology in solving modern economic and political problems. Environmental problems of modernity and public health. The causal relationship of the general morbidity of the population with environmental factors, solutions to reduce the burden on human health and the environment. Fundamentals of life support. Emergencies of peacetime and wartime. Assessment of the situation. Protection of the population. Tasks and organizations of the disaster medicine service. Organization of sanitary and hygienic and anti-epidemic measures in emergency situations.	GED	EC	5	LO1 LO8

Cycle of basic disciplines

High school component / Elective component

11	Introduction to profession	The healthcare system of the Republic of Kazakhstan. Organization of work and structure of medical and preventive organizations. Introduction to the profession of a doctor. Regulatory legal acts in the activities of medical workers of the Republic of Kazakhstan. Ethics and deontology in healthcare. Deontological aspects of patient care. Basics of communication when communicating with a patient and his family, colleagues. The legal status of the doctor and the patient. Anti-corruption culture.	BD	EC	3	LO1 LO2 LO3
12	Educational practice "Safe care"	<i>Basic forms and approaches to the organization of safe care. Basic principles, indications and prerequisites for the implementation of care. Requirements for creating a safe environment for the patient, care practices. Implementation of an individual approach to the patient in the implementation of safe care. Efficiency of collecting information about the patient. Basics of ergonomics and safe patient transfer. Using technology to improve patient safety. Activities and methods for safe care</i>	BD	HSC	1	LO1 LO5 LO6
13	Chemistry	Chemical processes occurring in the human body. Types of concentrations for determining the quantitative content of substances in biological fluids and preparation of medical solutions. The basic principles of qualitative and quantitative analysis used in scientific research for the diagnosis and treatment of diseases.	BD	EC	3	LO1 LO4 LO7
14	Molecular biology and medical genetics	Informational macromolecules of the cell. Matrix synthesis of nucleic acids. Gene expression. Transcription. Protein biosynthesis. Modification of proteins. Regulation of gene expression. Violation of genetic homeostasis and its manifestation in human pathology. Molecular genetic research methods. Transport of substances through membranes. The cell cycle.	BD	EC	5	LO1 LO4 LO7

15	Basics of anatomy	Basics of anatomy of healthy organism. General characteristics of systems, organs, tissues, cells. Main stages of embryogenesis. International anatomical nomenclature. Axis and planes. Components of musculoskeletal system. Structure and classification of bones. Types of joints. Biomechanics and classification of joints. Structure and classification of muscles. Blood supply, venous outflow and innervation of muscles. Age, gender, individual features.	BD	EC	3	LO1 LO4
16	Basics of physiology	Physiology of excitable tissues. excitability parameters. Laws of conduction of excitation along nerve fibers. Physiological properties of synapses. Reflex activity and features of the spread of excitation of the central nervous system. Types of higher nervous activity. General properties of analyzers. Metabolism and energy. Thermoregulation. Myology. Physiological properties of the heart muscle. General characteristics of the endocrine glands and body fluids.	BD	EC	3	LO1 LO4
17	Basics of histology	Cytology. Human embryology. General histology. The study of the microscopic structure of cells taken during life (biopsy), from a corpse (autopsy). Embryogenesis, morphological, cytochemical characteristics of cells, non-cellular matter, morphofunctional features of various types of tissues for understanding the processes of vital activity of the body and the application of this knowledge for the diagnosis, treatment, prevention of common and early forms of diseases.	BD	EC	3	LO1 LO4
18	Anatomy	Systematic study of morphology, functions, location, topographical situation of parts organs, and systems of the body: nervous system, organs of senses, cardiovascular, hematopoietic, immune, endocrine, digestive, respiratory, musculoskeletal, urinary, skin and its derivatives. Blood supply, venous and lymph outflow, innervation. Age, gender, individual features. Anomalies of development.	BD	HSC	5	LO1 LO4

19	Histology	Histology of organs and systems is normal: sensory organs, nervous, respiratory, cardiovascular, digestive, endocrine, hematopoietic, immune, musculoskeletal, urinary, reproductive systems, skin. Knowledge of the normal structure and functions of the body at the organ, tissue, cellular, and subcellular levels is necessary to understand changes in the patient's body, apply knowledge for the diagnosis, treatment, and prevention of common and early forms of diseases.	BD	HSC	3	LO1 LO4
20	Physiology	Functional characteristics of organs and systems: nervous, cardiovascular, endocrine, musculoskeletal, urinary, reproductive systems, hematopoiesis and immune protection, skin, sensory organs. The basic laws of functioning and mechanisms of regulation of the whole organism in interaction with each other and with the external environment. Physiological foundations of clinical and physiological methods of human body research.	BD	HSC	4	LO1 LO4
21	Medical Biochemistry - 1	Introduction to biochemistry. Biological functions of proteins. Structural and functional organization of enzymes. The role of membranes in metabolism and their variety. Transport of substances across membranes. The concept of vitamins and their biological role. Anaerobic way of energy generation. Specific and general pathways of catabolism. Oxidative decarboxylation of pyruvate. Krebs cycle. Carbohydrate exchange. Lipid exchange. Protein exchange. Nitrogen balance.	BD	HSC	4	LO1 LO4

22	Medical Biochemistry - 2	The concept of hormones and their classification. Water-salt exchange. regulation of homeostasis. Biochemistry of the liver. Microsomal oxidation. The concept of chromoproteins. Hemproteid metabolism: synthesis, decay. Biochemistry of blood. Biochemistry of nervous tissue. Biochemistry of muscle tissue. Biochemistry of connective tissue. Bone tissue, functions. Regulation of bone metabolism. Biochemistry of tooth tissue.	BD	HSC	3	LO1 LO4
23	Microbiology and Immunology - 1	General microbiology. Patterns of interaction between micro- and macroorganisms, practical skills in microbiological, molecular biological, immunological diagnostics, the main directions of treatment and prevention of infectious and opportunistic human diseases, including COVID-19. Fundamentals of immunology. Methods of immunoprophylaxis, immunotherapy. Vaccines, principles of obtaining, their significance.	BD	HSC	4	LO1 LO4 LO7
24	Microbiology and Immunology - 2	Private microbiology. Microorganisms pathogenic for humans: bacteria, viruses, fungi, protozoa, their morphology and physiology; role of microorganisms in etiology and pathogenesis of infectious diseases; main clinical manifestations and prevalence of diseases caused; specific diagnostics, prevention and treatment of infectious diseases. Diagnosis, interpretation of the antibiogram, drawing up recommendations on the use of antibiotics, immunobiological preparations.	BD	HSC	3	LO1 LO4 LO7

25	Introduction to the clinic	Organization of medical staff work, algorithms for performing various manipulations. Principles of care for diversified patients, organization of medical-protective regimen. Implementation of nursing procedures, familiarity with preparation rules for instrumental research methods. Safe hospital environment, provision of sanitary and anti-epidemic regime. Organization of patients transportation. Work in treatment room, medical records. First aid.	BD	EC	4	LO1 LO2 LO4
26	<i>Educational practice "Clinical practice-1"</i>	<i>Types of medical institutions; early acquaintance, interaction and regular monitoring of diversified patients. The principles of caring for seriously ill patients, the implementation of simple nursing procedures and manipulations, familiarity with the principles of preparation for instrumental research methods. Skills in providing first aid to patients in emergency conditions. Rules for working with medicines.</i>	BD	HSC	2	LO1 LO5 LO6
27	Public health and ethics in health care	Policy in the field of public health protection of the Republic of Kazakhstan. International and national healthcare structures, the role and responsibility of the healthcare system in addressing issues of providing medical care to the population. Application in practice of regulatory legal acts of the health care system. Demographics, indicators. Types of medical care. Origins and theoretical grounds for the emergence of ethics. Medical and ethical features of communication between doctors and patients.	BD	EC	5	LO1 LO2 LO3
28	Biostatistics	Descriptive statistics: data types, frequency distribution, measures of central tendency and dispersion, graphical presentation of data. Normal distribution. Testing statistical hypotheses. Goodness-of-Fit Tests. Difference between two sample means. Analysis of variance. Analysis of qualitative variables: contingency tables of mxn, 2x2 sizes. Correlation	BD	EC	3	LO1 LO7

		analysis. Application of software for statistical analysis of biomedical and scientific data.				
29	Hygiene and epidemiology	Environment and health. Scientific bases of hygienic regulation of environmental factors. Hygiene of medical and preventive organizations. Prevention of nosocomial infections. Basic tools for epidemiological analysis. Basic schemes of epidemiological research and their application to public health. Application of epidemiological methods to basic, clinical sciences, their research results and analysis for policy making. Epidemiological analysis, epidemiological diagnostics, epidemiological surveillance. Conducting of preventive and wellness activities among the population.	BD	EC	4	LO1 LO2 LO7 LO8 LO11
30	Общая патологическая анатомия	General pathological anatomy studies the patterns of development of pathological processes – etiology, pathogenesis, morphogenesis, morphology, outcome in common, early forms, the most common diseases; is the basis for the study of pathology of organs and systems; promotes professional growth and continuous improvement of medical activity, which will demonstrate and apply the knowledge gained for diagnosis, treatment and prevention diseases.	BD	HSC	5	LO1 LO4 LO5 LO9
31	General pathological physiology	General pathological physiology studies the general patterns of occurrence, development and outcome of pathological processes that form the basis of diseases, as well as their characteristic functional changes; is the basis for the study of pathology of organs and systems; promotes professional growth and continuous improvement of medical activity, which will demonstrate and apply the knowledge gained for the diagnosis, treatment and prevention of diseases.	BD	HSC	5	LO1 LO4 LO5 LO9

32	Pathological physiology of organs and systems	Pathological physiology of organs and systems forms knowledge about typical forms of pathology - functional changes in organs and systems, etiology, pathogenesis, outcomes, complications of the most common diseases and emergency conditions, which is necessary for their diagnosis, treatment and prevention, emergency care, as well as for further professional growth and continuous improvement of medical practice.	BD	HSC	5	LO1 LO4 LO5 LO9
33	Pathological anatomy of organs and systems	Pathological anatomy of organs and systems forms knowledge about the structural foundations of diseases - morphological changes in organs and systems, morphogenesis, complications and causes of death in common, early forms of diseases and emergency conditions, which is necessary for the diagnosis, treatment and prevention of diseases, emergency care, further professional growth and continuous improvement of medical practice.	BD	HSC	5	LO1 LO4 LO5 LO9
34	Basics of scientific research	Scientific research – definition, goals, objectives. Methodology, methods of scientific research, as well as ways of their organization. Research work’s preparatory stage. Scientific information’s main sources, their analysis, processing. Scientific ethics’ concept. Formulation of scientific research conclusions. Methods of registration of research results in the form of abstracts, reports, articles based on results of scientific research.	BD	EC	5	LO6 LO7

Cycle of profile disciplines
High school component/ Elective component

35	Basics of radiation diagnostics	Theoretical knowledge and skills in the radiation anatomy of organs and systems are normal, radiological research methods (X-ray, ultrasound, CT, MRT, radioisotope diagnostics, interventional radiology) for the diagnosis of diseases with a patient-centered approach; observing the measures of protection of patients and medical workers of the radiological department within the rules, laws of the Republic of Kazakhstan.	PD	EC	3	PO1 PO2 PO4
36	Pharmacology-1	General laws of pharmacodynamics and pharmacokinetics of medicinal substances. Classification, nomenclature of medicines, pharmacological characteristics of medicines, indications, contraindications to prescription, undesirable drug reactions, dosage regimen. Registration and prescription of medicines.	PD	HSC	4	PO1 PO4 PO9
37	Pharmacology-2	General principles of drug selection in the main clinical syndromes of diseases of the respiratory, cardiovascular, digestive, urinary, endocrine, hematopoietic, nervous and musculoskeletal systems. Indications and prescribing of medicines depending on the clinical syndrome, contraindications, undesirable drug reactions, dosage regimen. Using the principles of evidence-based medicine.	PD	HSC	5	PO4 PO5 PO7

38	Propaedeutics of internal diseases-1	Examination of patients, questioning skills, physical examination necessary for the formation of clinical competencies of a doctor of any specialty. Understanding the basics of semiotics and syndromology. Subjective and objective examination of patients with the main syndromes of infectious (tuberculosis, COVID-19, etc.) and non-infectious diseases. Planning of additional research methods. Filling out a medical history.	PD	HSC	4	PO1 PO4
39	Propaedeutics of internal diseases-2	Fundamentals of semiotics and syndromology in studies of pathological processes of organs and systems, interpretation of general examination data, palpation, percussion, auscultation in adults. The main symptoms and syndromes of common diseases of internal organs. Diagnosis and verification of the primary diagnosis. Principles of communication with the patient, his/her family and colleagues.	PD	HSC	5	PO1 PO3 PO4
40	Propaedeutics of children's diseases - 1	Introduction to propaedeutics of childhood diseases. Periods of childhood. Physical, sexual development. Questioning and examination of sick children with diseases of the respiratory, cardiovascular, digestive, hematopoietic, endocrine, musculoskeletal, nervous systems of different age groups. Methods of physical examination of systems in healthy and sick children. Rules and techniques of palpation, percussion and auscultation of organs of systems in children.	PD	HSC	4	PO1 PO4

41	Propaedeutics of children's diseases - 2	Semiotics, major syndromes and systemic lesions in children and adolescents. Questioning and general examination of sick children of different age groups with pathology of the respiratory, cardiovascular, digestive, hepatobiliary, urinary, hematopoietic, endocrine system and musculoskeletal system. Diagnostic value. Filling out a medical history.	PD	HSC	5	PO1 PO3 PO4
42	<i>Production practice "Clinical practice -2"</i>	<i>Practical skills in the possession of therapeutic, diagnostic manipulations, patient care. Questioning, detailing the patient's complaints. Collecting information about the history of the disease and life. Inspection and assessment of the general condition. Objective examination of the patient. Diagnosis of symptoms, formulation of the preliminary syndrome, planning, interpretation of laboratory and instrumental data. Treatment plan for major syndromes of diseases of internal organs. Communication skills in teamwork.</i>	PD	HSC	5	PO1 PO3 PO5 PO6
43	Obstetrics	Organization of obstetric care in the Republic of Kazakhstan. Family planning and contraception. Research methods in obstetrics. Physiological obstetrics. Antenatal fetal protection. The course of pregnancy, childbirth and the postpartum period with extragenital and obstetric pathology, diagnosis, emergency care, treatment and prevention. Coronavirus infection in pregnant women, women in labor and maternity hospitals at the hospital and PHC level. Documentation of the processes of providing medical services.	PD	HSC	5	LO2 LO4 LO9 LO10 LO11

44	Gynecology	Organization of gynecological care in the Republic of Kazakhstan. Neuroendocrine regulation of the menstrual cycle. Methods of research in gynecology. Classification, clinic, modern diagnostic methods and principles of treatment of gynecological diseases. Infertility in marriage. Providing emergency care for emergency conditions in gynecology. Documentation of the processes of providing medical services.	PD	HSC	4	LO2 LO4 LO9 LO10 LO11
45	Basics of internal diseases - 1	Effective measures aimed at the diagnosis, treatment and prevention of the main forms of diseases of the respiratory, cardiovascular, urinary systems. Postcovid syndrome . Diagnosis, provision of qualified and emergency medical care in urgent and life-threatening conditions. Research and evaluation of treatment results based on scientific data. Maintaining medical records (medical history).	PD	HSC	5	LO4 LO7 LO9 LO10 LO11
46	Basics of internal diseases – 2	Effective measures aimed at diagnosing, treating and preventing the main forms of diseases of the endocrine, musculoskeletal systems, and the hematopoietic system. Diagnosis, provision of qualified and emergency medical care in urgent and life-threatening conditions. Research and evaluation of treatment results based on scientific data. Maintaining medical records (medical history).	PD	HSC	5	L O4 LO7 LO9 LO10 LO11
47	Basics of evidence-based medicine	World experience of the evidence-based medicine development. Sources of reliable information and electronic databases. Terminology and tools of evidence-based medicine, research design. Ethical and regulatory aspects of biomedical research's organization and conduct. Application of scientific principles and methods of clinical research. Rules for drawing up and putting into practice clinical protocols for treatment and diagnosis.	PD	EC	3	LO1 LO4 LO7

48	Production practice "Clinical practice -3"	Collection of complaints and anamnesis, objective examination and physical examination of patients, interpretation of the results of laboratory and instrumental data, exposure of the leading syndrome, appointment of an examination and treatment plan, keeping a diary of dynamic observation, filling in the medical history.	PD	HSC	5	LO3 LO5 LO6
49	Fundamentals of childhood diseases - 1	Main directions of development of pediatric science. Age periods of the child's development. Patterns of growth and development of children. Children's health. Health groups. The concept of diseases by systems. Clinic, diagnosis, course of diseases of the respiratory system, cardiovascular system, gastrointestinal tract, hematopoietic system, urinary system, endocrine system.	PD	HSC	5	LO4 LO9 LO11
50	Fundamentals of childhood diseases - 2	Organization of medical care for children. Etiology, clinical symptoms, indicators of additional research methods, course, complications, prognosis, diseases of the respiratory system, cardiovascular system, gastrointestinal tract, hematopoietic system, urinary system, endocrine system. Maintaining medical records (medical history).	PD	HSC	5	LO4 LO9 LO10 LO11
51	Infectious diseases	Fundamentals of modern infectology. Classification of infectious diseases. Anthroponoses. Zoonoses. Anthropozoonoses. Helminthiases. Especially dangerous infections. Coronavirus infection COVID-19. Etiology, pathogenesis, clinic, diagnostics, differential diagnostics, methods of treatment of infectious diseases. Anti-epidemic measures in the foci of infection. Methods for the prevention of infectious diseases. Documentation of processes for the provision of medical services.	PD	HSC	5	LO3 LO4 LO9 LO10 LO11

52	Children's infectious diseases	Acute intestinal infections, acute respiratory viral infections, viral hepatitis, exanthema, parasitosis in children. COVID-19, Multisystem Inflammatory Syndrome. Etiology, pathogenesis, clinic, diagnostics, differential diagnostics and methods of treatment of childhood infectious diseases. Fundamentals of IMCI in infectious pathology. Methods for the prevention of childhood infectious diseases. Vaccination. Documentation of processes for the provision of medical services.	PD	HSC	4	LO3 LO4 LO9 LO10 LO11
53	Phthisiology	Clinical forms: pulmonary, extrapulmonary, drug-resistant tuberculosis, diagnosis and differential diagnosis. Methods of prevention, early and timely detection, patient-centered approach to treatment taking into account regulatory aspects, emergency medical care in emergency conditions, dispensary observation. Anti-tuberculosis measures at the PHC level. Documentation of the processes of providing medical services.	PD	HSC	4	LO3 LO4 LO9 LO10 LO11
54	General Surgery	History of surgery. Asepsis. Antiseptics. General issues of anesthesiology. Bleeding. Blood loss. Blood groups. Rh factor. Blood transfusion. Terminal state. Desmurgy. Transportation. Wounds. Electrical injury. Burns. Frostbite. Operation. Surgical infection. Sepsis. Specific surgical infection. Necrosis, gangrene, fistula. Plastic surgery. Medical history.	PD	HSC	4	LO1 LO4 LO9
55	Fundamentals of surgical diseases	Etiology, pathogenesis, diagnosis, principles of treatment and prevention of acute surgical pathologies in primary care and hospital. Acute surgical pathologies of the abdominal cavity. Pinched hernias. Abdominal injuries. Diseases of the rectum. Diseases of the lungs and pleura. Diseases of the veins of the extremities. Occlusive diseases of the arteries. Wellness activities and rehabilitation. Documentation of the processes of providing medical services.	PD	HSC	5	LO3 LO4 LO9 LO10 LO11

56	Traumatology	Etiology, pathogenesis, clinic, diagnosis and principles of treatment of soft tissue injuries, traumatic brain injury, chest injuries, bone fractures and dislocations of joints of upper and lower extremities, spinal injuries, pelvic bone fractures, polytrauma, prolonged crushing syndrome, traumatic osteomyelitis, joint diseases. Methods of prevention and rehabilitation. Documentation of the processes of providing medical services.	PD	HSC	5	LO4 LO9 LO10 LO11
57	Pediatric surgery	Ethics and deontology in pediatric surgery. Features of the clinic, diagnosis and treatment of surgical diseases in children. Congenital malformations. Conservative and surgical treatment. Emergency qualified care for surgical conditions that pose a threat to the life of a child. Priority studies devoted to the study of new technologies of surgical interventions, new methods of diagnosis, treatment and rehabilitation of children. Documentation of the processes of providing medical services.	PD	HSC	4	LO3 LO4 LO9 LO10 LO11
58	Visual diagnostics	X-ray semiotics of organs and systems. Clinical and radiological syndromes and diagnostic algorithms for diseases, injuries of internal organs, especially in children and adolescents. Possibilities of X-ray, ultrasound, CT, MRT in the diagnosis of benign and malignant tumors of organs and systems. Preclinical radiation diagnostics (screening). Main radiological symptoms and syndromes, differential diagnosis, interpretation of images, occupational safety. Documentation of the processes of providing medical services.	PD	HSC	4	LO4 LO7 LO8 LO10

59	Fundamentals of general medical practice	Organization of the work of the GP, fundamentals of management of the outpatient clinic. Maintenance of accounting and reporting documentation, medical audit in the conditions of primary health care. Effective interaction with specialists and patients in solving health problems (including COVID-19). Algorithms of rational differential diagnosis, management tactics and dynamic observation of patients. Provision of emergency and emergency care at the pre-hospital stage.	PD	HSC	6	LO2 LO3 LO4 LO9 LO10
60	Clinical pharmacology	Clinical and pharmacological approach to choosing the most effective and safe medicines for the treatment and prevention of diseases, conducting clinical and pharmacological analysis and the basis for the examination of drug therapy, developing a drug form in medical organizations based on clinical recommendations, diagnostic and treatment standards, scientific research in the field of clinical pharmacology.	PD	HSC	4	LO4 LO7 LO10
61	<i>Production practice "Clinical practice -4"</i>	<i>Provision of emergency medical care to patients with various conditions in acute diseases of internal organs, in extreme situations, diagnosis and assistance in emergency conditions. Maintaining medical records at the stage of emergency and emergency medical care. Communicative competence in extreme situations.</i>	PD	HSC	3	LO3 LO5 LO6 LO9
62	Emergency medical care - 1	Subject, tasks, scope, basic principles, regulatory legal acts of emergency medical care. Methods of clinical examination of the patient, diagnosis of emergency conditions at the prehospital stage. Terminal states. Basic Cardiopulmonary resuscitation (BLS). Documentation of the processes of providing medical services.	PD	HSC	5	LO4 LO9 LO10

63	Emergency medical care - 2	Extended Cardiopulmonary Resuscitation (ACLS). Emergency medical care for cardiological, pulmonological, endocrinological patients. Urgent conditions in the practice of infectious, neurological, psychiatric, surgical, urological, obstetric-gynecological, pediatric pathologies. Documentation of the processes of providing medical services.	PD	HSC	4	LO4 LO9 LO10
64	Neurology	Structural elements, divisions of the nervous system. Defeat syndromes. Blood supply to the CNS. Topical diagnostics. Research methods in neurology. Etiology, pathogenesis, clinical features. Diagnosis, treatment, prevention of common and early forms of neurological diseases. Provision of emergency medical care in emergency and life-threatening conditions, taking into account age characteristics. Communication skills in dealing with the patient. Documentation of processes for the provision of medical services.	PD	HSC	5	LO3 LO4 LO6 LO10 LO11
65	Psychiatry and Narcology	Organization of psychiatric and narcological care. Methods of examination of patients with psychiatry. Legal issues of psychiatry and narcology. Forensic psychiatric and narcological examination. General psychopathology. Diagnosis, treatment and prevention of common cases of disease forms. Emergency medical care in emergency and dangerous conditions of life, taking into account age characteristics. Communication skills in dealing with the patient. Documentation of the processes of providing medical services.	PD	HSC	3	LO3 LO4 LO6 LO10 LO11
66	CSMI and Medical law	CSMI system. Organization and provision of medical care to the population in the conditions of CSMI. Legislative documents regulating the activities of healthcare organizations. Rights and obligations in the field of healthcare. Working with electronic databases of the healthcare system of the Republic of Kazakhstan.	PD	EC	5	LO2 LO8 LO10



67	Preparation and passing of a comprehensive qualification exam	Determination of the degree of mastering the scope of academic disciplines provided for by the state mandatory standard of education by testing in key disciplines of general medicine, according to the developed specifications. Analysis and critical evaluation of the application of information in practice. Implementation of algorithms for providing medical care at seven OSCE stations.			12	LO1 LO2 LO3 LO4 LO9
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Evaluation criteria of EP 6B10101 "General Medicine" Bachelor's degree in the direction of GP (SOES 2022)

EP LO	Unsatisfactory	Satisfactory	Good	Excellent
LO 1. Provides patient-centered care in the biomedical, clinical, epidemiological, and social-behavioral sciences for the most common diseases.	1) Does not understand the principles of patient-centered care	1) Has difficulty communicating with the patient 2) Knows the goals of care, but does not develop a care plan for the patient 3) Selects standard patient care interventions	1) Communicates with the patient and his/her family on the basis of partnership 2) Develops a care plan for the patient, taking into account the priorities and goals of care 3) Selects preferred interventions for patient care 4) Trains nurses on the principles of patient- and family-oriented care	1) Establishes effective communications with the patient and his/her family based on partnership and a solidary role in the process of treatment, rehabilitation and recovery 2) Takes into account psychosocial problems, the needs of the patient, priority motives and problems within his/her illness 3) Develops a plan for providing care to the patient, taking into account the priorities and goals of care 4) Achieves effective compliance with the patient and his/her family, respecting the patient's right to choose interventions for him/herself and his/her life 5) Selects preferred patient care interventions using specific strategies for patient (or family) education and collaborative decision

				making 6) Trains nurses on the principles of patient- and family-oriented care
LO2. Carries out his/her activities within the framework of the legislation of the Republic of Kazakhstan in the field of healthcare, is guided by them in practical activities to ensure optimal medical care.	1) Is not oriented in the content of the Code of the Republic of Kazakhstan "On the health of the people and the healthcare system"	1) Understands the need to use the articles of the Code of the Republic of Kazakhstan "On the health of the people and the healthcare system" in the practice of doctors	1)Orients in the articles of the Code of the Republic of Kazakhstan "On the health of the people and the healthcare system" 2) Uses the articles of the Code in practice	1) Works within the framework of the Legislation of the Republic of Kazakhstan in the field of healthcare, which regulates public relations in the field of public health protection 2)Analyzes articles of the Code of the Republic of Kazakhstan "On the health of the people and the healthcare system" 3) Is guided by the articles of the code in practice to ensure optimal medical care
LO 3. Adheres to the rules of ethics, deontology and subordination, demonstrates interpersonal and communication skills that lead to effective information exchange and cooperation with patients, their families and medical professionals.	1) Does not comply with professional ethical norms and rules of deontology and subordination when communicating with patients and their relatives and colleagues	1) Knows professional ethical norms and rules of deontology when communicating with patients, their relatives 2) Understands the need for subordination when communicating with colleagues	1)Observes professional ethical norms and rules of deontology when communicating with patients and their relatives from the standpoint of cooperation and partnership 2) Observes subordination when communicating with colleagues at work	1) Observes professional ethical standards, principles and assessments, medical moral codes from the standpoint of focusing on human health, its improvement and preservation 2) Is guided by the rules of deontology and subordination in

				interpersonal relations with patients, their relatives and colleagues from the standpoint of cooperation and partnership
LO 4. Conducts effective measures aimed at the diagnosis, treatment, prevention of common and early forms of diseases.	1) Not able to carry out measures aimed at the diagnosis, treatment, prevention of common and early forms of diseases	1) Knows the approved standards of medical care and clinical protocols for the diagnosis, treatment, prevention of common and early forms of diseases 2) Understands the need to form a healthy lifestyle among the population 3) Participates in the implementation of screening programs, preventive examinations and vaccination	1) Applies approved standards of medical care and clinical protocols in the diagnosis, treatment, prevention of common and early forms of diseases 2) Conducts preventive measures aimed at the formation of a healthy lifestyle among the population 3) Participates in the implementation of screening programs, preventive examinations and vaccination	1) Is guided by the approved standards of medical care and clinical protocols for the diagnosis, treatment, prevention of common and early forms of diseases 2) Conducts preventive measures aimed at the formation of the population's medical and social activity and motivation for a healthy lifestyle 3) Analyzes the results of the implementation of screening programs and preventive examinations 4) Analyzes the results of vaccination for the prevention of infectious diseases 5) Is guided by the rules of oncological alertness in practice
LO 5. Performs professional duties, organizes self-monitoring	1) Does not possess the skills of diagnosis, treatment, prevention	1) Has knowledge and skills of diagnosis, treatment, prevention	1) Applies knowledge and skills that meet the requirements for general	1) Implements the performance of labor functions that meet the

and improvement of his/her activities	continuous of patients	and rehabilitation of patients	and rehabilitation of patients	medical practice 2) Able to diagnose, treat, prevent and rehabilitate patients 3) Applies research skills within the specialty "General Medical Practice"	requirements for knowledge, skills and competencies in general medical practice 2) Performs diagnostics, treatment, prevention and rehabilitation of patients 3) Conducts research within the specialty "General medical practice" 4) Strives to improve and expand the level of qualification by mastering new competencies and self-control
LO 6. Supports continuous personal and professional growth, constantly improves the quality of medical care based on self-assessment and lifelong learning.	1) Does not perform training tasks to acquire skills and knowledge	1) Performs training tasks to acquire skills and knowledge	1) Analyzes individual professional practice 2) Performs training tasks to acquire skills and knowledge 3) Conducts self-assessment 4) Trains regularly	1) Evaluates individual professional practice 2) Sets and performs training tasks for the acquisition of skills and knowledge 3) Checks the acquisition of skills and knowledge by self-assessment 4) Trains and receives medical development continuously	
LO 7. Applies scientific principles, methods and knowledge in medical practice and research. Capable of continuous self-education and development.	1) Is not able to apply scientific principles, methods and knowledge in medical practice and research	1) Knows the principles of evidence-based medicine in clinical practice 2) Is not able to solve the assigned tasks for	1) Applies the principles of evidence-based medicine in clinical practice 2) Solves the assigned tasks for conducting	1) Knows the principles of evidence-based medicine for clinical practice 2) Formulates and solves tasks for conducting clinical trials	

<p>Implements new methods into clinical practice</p>		<p>conducting clinical trials 3) Does not have the skills to search for evidence to get an answer to the question of interest</p>	<p>clinical trials 3) Applies the skills of searching for evidence to get an answer to the question of interest</p>	<p>independently 3) Formulates clinical questions independently to search for evidence and get an answer to the question of interest for implementation into clinical practice 4) Analyzes the degree of reliability of the studied indicators and types of studies</p>
<p>LO 8. Complies with the norms for the implementation of public health protection, sanitary and hygienic regime of the health organization and epidemiological safety of the environment, labor safety standards in the health organization</p>	<p>1) Does not comply with the norms of public health protection, sanitary and hygienic regime of the health organization and epidemiological safety of the environment, labor safety standards in the health organization</p>	<p>1) Knows the norms for ensuring the sanitary and epidemiological well-being of the population when working in a health organization 2) Complies with the norms of the sanitary and hygienic regime in the health organization</p>	<p>1) Applies knowledge about the norms of ensuring the sanitary and epidemiological well-being of the population when working in a health organization 2) Complies with the norms of the sanitary and hygienic regime in the health care organization 3) Complies with labor and environmental safety standards</p>	<p>1) Is guided by the norms for the prevention, detection, suppression of violations in the field of ensuring the sanitary and epidemiological well-being of the population in its practical activities 2) Complies with the norms of the sanitary and hygienic regime in the health care organization 3) Complies with labor and environmental safety standards in order to protect the health of the population and the human environment</p>
<p>LO 9. Performs diagnostics, provides</p>	<p>1) Does not diagnose, is not able to provide</p>	<p>1) Performs diagnostics of urgent and life-</p>	<p>1) Performs diagnostics of urgent and life-threatening</p>	<p>1) Performs diagnostics of urgent and life-threatening</p>

qualified and urgent medical care for urgent and life-threatening conditions	emergency medical care for urgent and life-threatening conditions	threatening conditions at the pre-hospital stage 2) Is able to provide emergency care for urgent and life-threatening conditions at the pre-hospital stage	conditions at the pre-hospital stage 2) Is able to provide qualified emergency care for urgent and life-threatening conditions at the pre-hospital stage 3) Knows the indications for hospitalization in urgent and life-threatening conditions	conditions at the pre-hospital stage in compliance with the principles of efficiency and timeliness 2) Provides qualified and urgent medical care for urgent and life-threatening conditions at the pre-hospital stage fully and efficiently 3) Is guided by the indications for hospitalization, ensures hospitalization and continuity in the provision of emergency care
LO 10. Works in electronic databases of the healthcare system of the Republic of Kazakhstan, provides documentation of the processes of providing medical services	1) Does not have the skills to work in the databases of the healthcare system	1) Focuses on the use of electronic information resources 2) Searches for information in reference databases on medicines.	1) Uses electronic information resources at work 2) Provides documentation of the processes of providing medical services 3) Searches for information in the international database on medicines	1) Uses electronic information resources at work 2) Uses information and communication infrastructures at work 3) Provides documentation of the processes of providing medical services 4) Searches and interprets information in the international database on medicines
LO 11. Organizes medical and social assistance, conducts preventive and	1) Is not able to provide medical and social assistance, carry	1) Knows the principles of primary medical and social care and	1) Applies knowledge and skills in providing primary medical and social care	1) Organizes primary medical and social care and rehabilitation treatment for

<p>health-improving activities among the population.</p>	<p>out preventive and health measures among the population</p>	<p>rehabilitation treatment for various diseases and the consequences of injuries</p>	<p>and rehabilitation treatment for various diseases and the consequences of injuries 2) Promotes a healthy lifestyle, the principles of rational nutrition</p>	<p>various diseases and the consequences of injuries 2) Organizes events to promote a healthy lifestyle, rational nutrition, awareness-raising and personal responsibility of citizens for their health 3) Carries out work to mobilize the public to address issues of prevention, early detection and treatment of diseases</p>
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