

ONTUSTIK QAZAQSTAN
MEDISINA
AKADEMIASY
«Оңтүстік Қазақстан медицина академиясы» АҚ



SOUTH KAZAKHSTAN
MEDICAL
ACADEMY
АО «Южно-Казахстанская медицинская академия»



EDUCATIONAL PROGRAM

Educational programme group: B089 Public health

Educational Programme code: 6B10111

Name of the educational programme: Public Health

Level of the educational programme: Bachelor's degree

Shymkent

The “Public Health” Education Programme was developed by members of the “Public Health” Academic Committee

Agreed upon by employers:

Deputy head of the Department of sanitary and epidemiological control of Shymkent


Akhmetov A.R.



Уағым Рахым
Сұл

Chairperson of the AC of the EP

Minutes № 6 dated “28” “04” 2025.

Endorsed by the Methodological Council
Vice-Rector for Academic Affairs


Anartayeva M.U.

Minutes № 9 dated “02” “05” 2025.

Approved by the Academic Council

Minutes № 13 dated “02” “05” 2025.



ОҢТҮСТІК ҚАЗАҚСТАН MEDISINA АКАДЕМИАСЫ «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Academic Committee	Page 3 of 26	
Educational program		

Passport of the educational programme

1. Mission of the educational programme: Recognition as a leader honing highly specialised professional competences and scientific knowledge.
2. Purpose of the educational programme: Training of competitive specialists in the field of public health who possess the skills of critical thinking and analysis, comply with laws and moral and ethical norms, capable to assess and monitor public health, implement an innovative approach to solving problems and tasks of intersectoral interaction, striving for personal and professional growth.
3. Rationale for the educational programme:
 - for learners:
 - labour market demand:
4. Professional standard on the basis of which the educational programme was developed:
 - Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI The Law of the RK. “On public health and healthcare system”, with amendments and additions as of 04.07.2022.
 - The Law of the Republic of Kazakhstan “On Education” dated 27.07.2007 No. 319-III, with amendments and additions dated 14.07.2022 No. 141-VII.
 - Order of the Ministry of Health of the Republic of Kazakhstan “On approval of state mandatory standards for levels of education in the field of healthcare” dated July 4, 2022 No. RK HcM-63.
 - Order of the Minister of Science and Higher Education of the Republic of Kazakhstan “On approval of state mandatory standards of higher and postgraduate Education” dated July 20, 2022 No. 2.
 - Order of the Ministry of Education and Science of the Republic of Kazakhstan “On approval of the Rules for organizing the educational process on credit technology of education” dated April 20, 2011 No. 152, with amendments and additions as of 05/06/2021.

- Order of the Ministry of Health of the Republic of Kazakhstan “On approval of the nomenclature of specialties and specializations in the field of healthcare, nomenclature and qualification characteristics of positions of healthcare workers” dated December 21, 2020 No. RK HcM-305/2020, with amendments and additions as of 04/09/2021.
 - Order of the Ministry of Education and Science of the Republic of Kazakhstan “Standard rules for the ongoing monitoring of academic performance, intermediate and final certification of students in higher educational institutions” dated March 18, 2008 No. 125, with amendments and additions as of 12.05.2022.
 - “Standard Rules for the activities of organizations implementing higher and postgraduate education”, Decree of the Government of the Republic of Kazakhstan dated October 30, 2018 No. 595 with amendments and additions as of 12/29/2021.
 - Internal regulatory documents of JSC SKMA.
5. Area of professional activity: health care manager (on quality of medical services, on strategy and marketing of medical services, on organisation and methodology of medical services); HR manager in the field of health care; public health specialist (statistician, methodologist); head of a structural subdivision of a health care organisation; deputy head of a health care organisation; head of a health care organisation.
6. Occupational sectors: management, medical organisations, social security, health insurance, pharmaceutical companies, health quality assurance agencies, public and professional associations, occupational health services, etc.

General information

№	Characterisation of the EP	Данные
1	Registration number	6B10100085
2	Code and classification of the field of education	6B10 Healthcare
3	Code and classification of training areas	6B101 Healthcare

4	Group of educational programmes	B089 Public health
5	Code, name of educational programme	6B10111 Public health
6	Type of EP	Acting EP
7	ISCED level	6
8	NQF level	6
9	SQF level	6
10	Distinctive features of the EP	No
	The Univercity partner (JEP)	-
	The Univercity partner (DOP)	-
11	List of competences	<p>CC 1. Health protection: Uses basic and natural science knowledge to carry out activities in the field of public health protection and sanitary and epidemiological welfare of the population.</p> <p>CC 2. Promotion of a healthy lifestyle: Conducts sanitary and educational work among the population on the formation of a healthy lifestyle. Informs the population, health care workers on public health issues.</p> <p>CC 3. Strategic health management: Defines strategies, management of processes and activities (including innovation) with decision-making and responsibility at the level of institutional structures of public health.</p> <p>CC 4. Public health planning: Carries out executive activities in the field of public health protection and sanitary-epidemiological welfare of the population with the definition of tasks and planning of activities taking into account the set goal.</p>

		<p>CC 5. Leadership skills and innovative thinking: Demonstrates leadership qualities, innovation and independence in work and educational activities in new contexts that require problem solving.</p> <p>CC 6. Process and information management: Demonstrates the ability to independently manage and control the process of labor and educational activities within the framework of the strategy, policy and goals of the health organization, competently operate with information.</p> <p>CC 7. Creative healthcare management: Applies a creative approach (skills and abilities) to independently develop and put forward alternative solutions to management problems in the field of public health and sanitary-epidemiological well-being.</p> <p>CC 8. Ethical and legal competence: Observes in practice ethical and legal norms based on psychology and cultural studies of modern society.</p>
12	Learning outcomes	<p>LO 1 – Applies key concepts and methods of public health and sustainable development based on the most important aspects of modern history, philosophy and socio-political knowledge for effective intersectoral interaction with the use of modern information technologies.</p> <p>LO 2 – Applies various methods and methods of organizing the management of health care institutions and personnel to set goals and solve practical tasks for the protection of public health and sanitary-epidemiological welfare of the population.</p> <p>LO 3 – Supports continuous personal and professional growth, studying during professional activity and is able to contribute to the creation and dissemination of knowledge and practical skills applicable to health.</p> <p>LO 4 – Applies critical thinking skills, digital technologies and artificial intelligence in analyzing and solving problems and making science-based</p>

		<p>decisions in the field of healthcare.</p> <p>LO 5 – Applies in practice the regulatory legal acts of the Republic of Kazakhstan in the field of health protection and ensuring epidemiological safety of the population.</p> <p>LO 6 – It works in electronic databases of the healthcare system of the Republic of Kazakhstan, ensures the maintenance of the necessary accounting and reporting documentation in healthcare organizations through electronic document management and archiving programs.</p> <p>LO 7 – Monitors, analyzes and evaluates data on the quality of the environment, the state of health, sanitary and epidemiological well-being of the population, the activities of health organizations and the satisfaction of the population with the medical services provided.</p> <p>LO 8 – Possesses the developing, organizing, conducting and effectiveness of sanitary-anti-epidemic and sanitary-preventive measures to protect public health and prevent diseases.</p> <p>LO 9 – Determines public health risk factors for calculating, evaluating and analyzing quality indicators of various environmental objects, summarizing its own conclusions in the form of recommendations.</p> <p>LO 10 – Capable to carry out an investigation of an epidemiological focus and prescribe anti-epidemic measures in the foci of infectious diseases with an assessment of the effectiveness of immunoprophylaxis of the population.</p> <p>LO 11 – Conducts current and preventive supervision, assessment and correction of activities in the field of public health protection and sanitary and epidemiological welfare of the population in infectious and parasitic diseases.</p> <p>LO 12 – Capable to organize sanitary and epidemiological control of the environment, border protection from the import and spread of particularly</p>
--	--	--

		<p>dangerous infections, determining the risks of import of infectious diseases from abroad, in order to develop measures to ensure the sanitary and epidemiological well-being of the population, including in emergency situations.</p> <p>LO 13 – Observes social, moral and ethical norms and principles of inclusion, improving self-development skills and implementing social work and organization of medical and social assistance among the population.</p> <p>LO 14 – Applying scientific knowledge, he is able to conduct research in the field of public health protection.</p>
13	Form of training	Daytime
14	Language of training	Kazakh/ Russian
15	Volume of the credits	300
16	Period of study	5 years
17	Awarded degree, qualification	Bachelor of Public Health
18	Availability of an annex to the licence for the direction of training	KZ36LAA00011387 (017)
19	Availability of accreditation of the EP	-
	Name of accreditation agency	-
	Accreditation validity period	-
20	Information on disciplines	Appendix A. 2

Appendix A. 2

Competence/learning outcomes achievability matrix

№	Name of discipline	Brief description of the discipline (30-50 words)	Cycle (GED, BD, PD)	Component (MC, UC, EC)	Quantity of credits	Formed LOs (codes)
Cycle of general education disciplines					46	
1	History of Kazakhstan	Forms worldview, civic and moral values based on scientific understanding of Kazakhstan's historical development. Develops ability to analyse causes and consequences of historical events using methods and techniques of historical description. Encourages critical thinking and awareness of national identity through understanding key stages and patterns in Kazakhstan's history.	GED	MC	5	LO 1 LO 4
2	Physical education	The formation of a competitive personality capable of physical self-improvement through the skills of building a personal educational trajectory throughout life for self-development and career growth, focused on a healthy lifestyle to ensure full social and professional activity through the methods and means of physical culture.	GED	MC	6	LO 1 LO 3 LO 8
3	Foreign language	Develops skills in using linguistic and grammatical knowledge to build effective foreign language communication. Ensures oral and written proficiency for interpersonal, intercultural, and professional contexts. Promotes self-improvement and success through analysis of information and appropriate use of language in various communication situations.	GED	MC	8	LO 1 LO 3 LO 4
4	Kazakh (Russian) language	Develops oral and written communication skills in Kazakh and Russian for interpersonal, intercultural, and professional contexts. Applies grammatical knowledge to build effective communication. Enhances ability to analyse information and communicate	GED	MC	8	LO 1 LO 3 LO 4

		appropriately in various situations. Promotes self-improvement and professional success through confident language use in diverse social and work environments.				
5	Information and communication technologies	This course covers foundational concepts of information and communication technologies, including architecture of computer systems, types of software, database systems, data analysis and management, networking, cybersecurity, internet technologies, cloud technologies, multimedia technologies, smart technologies, AI fundamentals and its applications.	GED	MC	3	LO 1 LO 4 LO 6
6	Module on social and political knowledge (sociology, political science, cultural studies, psychology)	Applies knowledge for social adaptation, critically evaluates information, analyzes social and psychological processes, and uses sociological methods. Possesses skills in logical analysis of psychological phenomena. Understands psychological foundations of inclusion, and principles of equality and acceptance of differences, applying them in personal and professional contexts.	GED	MC	6	LO 1 LO 4 LO 13
7	Philosophy	Develops skills to assess reality through a worldview shaped by philosophical knowledge. Promotes scientific understanding of nature and society using philosophical methods. Enables interpretation of mythological, religious, and scientific worldviews. Builds ability to conduct quantitative and qualitative analysis of social phenomena, processes, and problems.	GED	MC	5	LO 1 LO 3
8	Legal, economic, environmental and scientific knowledge*	Forms moral and civic values based on financial, legal, environmental, and scientific knowledge. Develops competencies in applying social, cultural, legal, and ethical norms of Kazakhstani society for lifelong learning, mobility, and critical thinking. Builds skills in using scientific methods and research techniques within a specific field.	GED	EC	5	LO 5 LO 9
9	Basics of law and Economics	Legal education and anti-corruption culture for future specialists under the 'Rukhani Zhangyru' program. Legal status and social protection of medical workers. Healthcare laws. Market,	GED	EC		LO 1 LO 3 LO 5

		competition. Firm theory and entrepreneurship. National economy features. State policy in medical industry development in Kazakhstan.				
10	Financial literacy and entrepreneurial skills	Develops financial literacy and entrepreneurship skills, emphasizing informed decision-making, effective resource management, debt control, business planning, risk reduction, and adherence to ethical standards to succeed and adapt responsibly in today's dynamic economy and competitive business environment.	GED	EC		LO 1 LO 3 LO 5
11	Fundamentals of Anti-Corruption Culture*	Forms value orientations and skills in anti-corruption culture, recognizing and counteracting corruption in public and professional spheres. Highlights its importance for society and individuals, socio-economic and legal impacts, ethical foundations, and effective tools and methods for corruption prevention and promoting integrity.	GED	EC		LO 1 LO 13
12	Ecology, sustainable development and life safety, scientific research methods*	Develops skills to analyse environmental problems using scientific knowledge and sustainable development principles. Builds critical thinking, research, data collection, and analysis abilities. Applies environmental methods to study natural systems, address pollution issues, and assess impacts on human health. Mastery of scientific methodology and practical application is emphasized.	GED	EC		LO 1 LO 2 LO 7
Cycle of basic disciplines					149	
University component						
1	Introduction to the specialty	The healthcare system of RK. Organization of work and structure of sanitary and epidemiological supervision organizations, medical and preventive organizations. Regulatory legal acts in the activities of medical workers of RK. Ethics and deontology in healthcare. Basics of communication with public, colleagues. Anti-corruption culture. Health and healthcare fundamentals. Modern theories, concepts in the understanding of public health.	BD	UC	5	LO 1 LO 2 LO 5
2	Chemistry	Chemical processes occurring in the human body. Types of	BD	UC	3	LO 1

		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 the diagnosis and treatment of certain diseases.				LO 2
3	Basics of anatomy	Features of systems, organs, cells and subcellular structures of a healthy body. The main regularities of the structure of tissues in different age periods; value for medicine; terminology, basic methods of work with drugs, textbooks and equipment; the essence of the methods of study of different parts of the person.	BD	UC	4	LO 1 LO 4 LO 9
4	Basics of physiology	Functions of the body of a healthy person and the mechanisms of their regulation. Fundamental theoretical knowledge of the structural and functional organization of life processes at the cellular, tissue and organ levels, the disclosure of the laws of their development and in this regard – the possibility of targeted impact on them.	BD	UC	4	LO 1 LO 4 LO 9
5	General hygiene	The subject of general hygiene, content, purpose, objectives, methods. Codex of RK about the People Health and the Health System. Impact of air pollution, soil and water quality on human health, its prevention. Nutrition and human health. Child and adolescent health. Hygienic characteristics and prevention of the harmful effects of the main harmful factors of the working environment on human health.	BD	UC	5	LO 2 LO 7 LO 8
6	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. Patterns of inheritance of traits. Basics of the chromosomal theory of heredity. Molecular genetic research methods. Violation of genetic homeostasis and its manifestation in human pathology as a health risk factor.	BD	UC	3	LO 1 LO 9 LO 14
7	Biostatistics	Basics of biostatistics. Descriptive statistics. Basics of the theory	BD	UC	5	LO 1

		of statistical hypothesis testing. Comparison of the average values of the attribute of two groups. A nonparametric alternative. One-factor analysis of variance. Correlation analysis. Regression analysis. Analysis of qualitative features. Dynamic series analysis. Application of software for statistical analysis of biomedical data.				LO 9 LO 14
8	Statistics in health care	Theoretical foundations of medical statistics. Medical statistics, its importance in assessing population health and health authorities and institutions' activities. Statistical indicators of health. Comprehensive health assessment. Graphic images in medicine and healthcare: a visual representation of the results of a statistical study. Methods for calculating averages: variational series, mode, median, arithmetic mean.	BD	UC	5	LO 1 LO 6 LO 9 LO 14
9	Educational practice as an assistant to a medical statistician	Familiarity with organization of medical institution's statistical work. Familiarization with work on compilation of periodic statistical reports, one-time reports of medical organizations according to the forms. Verifies the correctness of obtained data, their comparability for individual departments with data for previous periods. Systematizes and processes digital data.	BD	UC	2	LO 1 LO 6 LO 9
10	Pharmacology	General laws of pharmacokinetics and pharmacodynamics of medicinal substances. Toxicokinetics and toxicodynamics of medicinal substances. Antiseptics and disinfectants. Chemotherapeutic agents. Toxic effects of medicinal raw materials and drugs on the body of pharmaceutical workers, as a risk factor for health. General laws of pharmacoconomics and pharmacoepidemiology.	BD	UC	5	LO 1 LO 8 LO 9
11	First aid	The subject, tasks, scope and main tasks of first aid. Terminal conditions. First aid for wounds. Injuries, transport immobilization. Bleeding. First aid for burns. First aid for acute heart failure. First aid for allergic reactions. Critical thinking.	BD	UC	5	LO 4 LO 8
12	Microbiology, Virology	Systematics and nomenclature of microorganisms. Bacteria's	BD	UC	5	LO 1

	and Parasitology	morphology and physiology. General virology. Bacteria, viruses genetics. Antibiotics. Microbiological basis of disinfection, asepsis, antisepsis. Infection. Immunity. Immunobiological preparations. Water, soil, air, food sanitary microbiology. Private medical microbiology. Principles of major bacterial, viral diseases microbiological diagnosis. Medical parasitology. Human parasitic diseases' biological basis prevention.				LO 7 LO 8 LO 12
13	Medical biochemistry	Biological functions of proteins. Metabolism of proteins, fats and carbohydrates. Catabolism. Krebs cycle. Physiological and biochemical norms of water metabolism, acid-base state of the body. Regulation of homeostasis. Role of membranes in metabolism. Enzymes. Vitamins. Hormones. Biochemistry of blood, nervous, muscular, connective tissue. Interpretation of the results of laboratory and functional research methods.	BD	UC	3	LO 1 LO 7 LO 14
14	Environment and health	Subject, purpose and objectives. The main risk factors of environmental pollution (water, air, soil) for human health. Natural and anthropogenic factors in the formation of public health. Public health as an integral indicator of environmental pollution. Factors determining health. Types of environmental pollution effects on health.	BD	UC	5	LO 7 LO 9 LO 12
15	Basics of Public Health	Forms knowledge of public health, sustainable development, healthcare systems, and health assessment methods. Develops skills to analyze population health indicators, apply prevention and health promotion principles, and participate in planning and evaluating measures to protect public health and support sustainable development within professional activities.	BD	UC	5	LO 1 LO 3 LO 13
16	Radiation hygiene and medical ecology	The subject, goals, objectives of radiation hygiene and medical ecology. Research methods. Sources of ionizing radiation, their characteristics. Modern principles of rationing: Radiation Safety Standards. Radiation safety of the population. The concept of	BD	UC	6	LO 7 LO 8 LO 9

		radiation and nuclear accidents. Modern problems of medical ecology. Classification of environmental risk factors for public health.				
17	Basics of evidence-based medicine	Introduction to Evidence-based Medicine (DM). Sources of DM. World development experience. Terminology and tools of evidence-based medicine. Types of epidemiological studies. Research in the field of healthcare. Electronic databases. The Cochrane Library. Search for information on the Internet using DM filters. Five stages of evidence-based medicine using critical thinking.	BD	UC	5	LO 4 LO 6 LO 14
18	Basics of research. Bioethics	Types of research in the field of healthcare. Regulatory legal acts of research. Causes and sources of biomedetics. Basic principles and rules of biomedical ethics. Ethics Committee. Responsibility for inaction and wrong actions. Reproductive choice and health. Moral aspects of medical and genetic counseling. The Nuremberg Code and the Helsinki Declaration.	BD	UC	5	LO 3 LO 5 LO 13 LO 14
19	Quality management	Quality planning. Quality management. Quality assurance. Quality improvement. The Plan-Do-Check-Act cycle. Quality components. Quality management system. World experience in the development of quality management. Statistical methods of quality control and process regulation. Basics of building quality systems. ISO 9000 series international standards. Documentation of the quality management system. Electronic document management.	BD	UC	6	LO 2 LO 5 LO 6
20	Basics of project management in the field of quality	Project definition. Its main characteristics and measurements. Elements of project activity. Classification of projects. Methodology and methodology of pre-project analysis. Project integration management. Mobilization of project resources. Project time and cost management. Project quality and risk management. Team management and project communications. Project monitoring. Change management and project completion.	BD	UC	6	LO 2 LO 3 LO 14

		Research in public health.				
21	One Health	Forms knowledge of 'One Health', human-environment interaction, global health challenges, and health protection laws. Develops skills to analyse health risks, assess epidemiological situations, organise sustainable public health programmes, and interpret monitoring data to support informed management decisions in healthcare systems.	BD	UC	5	LO 1 LO 7 LO 8 LO 9
22	Epidemiology	Basic principles and concepts of descriptive epidemiology. The main tools of epidemiological analysis. Analytical epidemiology, basic research schemes and their application for the study of public health. Protection of sanitary and epidemiological welfare of the population and implementation of anti-epidemic measures. Epidemiological surveillance, epidemiological diagnostics, epidemiological analysis.	BD	UC	6	LO 2 LO 7 LO 8
23	Disease prevention and healthy lifestyle	Forms knowledge of preventive medicine, prevention types, healthy lifestyles, and key disease risk factors. Develops skills to analyse risk factors, assess population health and awareness, plan and evaluate preventive and educational measures, considering inclusion and the age, social, and professional characteristics of target groups.	BD	UC	5	LO 2 LO 7 LO 13
24	Infectious diseases	The doctrine of infection, classification. General principles. Laboratory diagnostics and prevention of intestinal, airborne, transmissible, anthroozoonotic, especially dangerous infections, STDs, food toxicoinfections, helminthiasis. Infections of the outer integuments. Geographical distribution of the most important diseases. Offices of infectious diseases of polyclinics in the organization of dispensary registration of infectious patients.	BD	UC	5	LO 10 LO 11 LO 12
25	Work practice as a specialist in epidemiology	Epidemiological examination of the focus of an infectious disease. Planning of anti-epidemic and preventive measures aimed at localization (elimination) of the epidemic focus. Organization and	BD	UC	5	LO 2 LO 7 LO 8

		implementation of specific prevention. The procedure for investigating post-vaccination complications. Organization and carrying out disinfection, sterilization, deratization. Epidemiological diagnostics.				
26	Financial management in healthcare	Builds knowledge and skills in healthcare financial management, funding sources, resource allocation, and regulatory frameworks. Covers budgeting, financial planning, economic efficiency assessment, financial and economic analysis, risk evaluation, and application of financial control and audit methods to ensure transparency and rational use of healthcare resources.	BD	UC	5	LO 1 LO 5 LO 6
27	Nutriciology	Physiological and hygienic bases of rational and balanced nutrition, hygienic requirements for their organization. Food quality assessment. Genetically modified foods. General hygienic requirements for food enterprises. Scheme of sanitary and epidemiological inspection of food enterprises. Control of the sanitary condition of food enterprises. Standardization of food products, its hygienic and legal significance.	BD	UC	5	LO 5 LO 7 LO 9 LO 11
28	Methods of sanitary and hygienic research	Objects, types, methods and tasks of hygienic research. Hygienic laboratory, types, structure and functions. Equipment and devices used in hygienic research. Sanitary and bacteriological studies of food products in practice. Methods of hygienic research of water and atmospheric air of populated areas. Methods of hygienic study of the soil of populated areas.	BD	UC	5	LO 7 LO 8 LO 11 LO 14
29	Health management	Globalization of healthcare - the existing realities in the system of public health protection. Practice of health and healthcare management in foreign countries. Healthcare management system of RK. Unified management system of the company. Internal organization and management function. The purpose and objectives of management. Management methods: classification, orientation, content. Management principles: concept,	BD	UC	6	LO 1 LO 2 LO 5

		classification.				
30	Public healthcare	Modern healthcare, global trends in developed countries. Public health policy. International Classification of Diseases and Health-related Problems. International and national health structures, the role and responsibility of the health system in addressing issues of providing social and medical care to the population. Reforms of the healthcare legislation. Regulatory and legislative acts in healthcare. Scientific knowledge and research.	BD	UC	5	LO 4 LO 5 LO 14
31	State sanitary-epidemiological supervision	The role and legislation of the SSES in the protection and promotion of public health. Current control of population' sanitary and epidemiological welfare. Preventive supervision. Accounting and reporting documentation in the modern system of sanitary and epidemiological control. Applied forms and methods of solving practical problems in the protection of sanitary and epidemiological welfare of the population.	BD	UC	5	LO 7 LO 8 LO 10 LO 11
Cycle of basic disciplines					5	
Elective component						
32	Sociology and psychology of health	Develops knowledge of social determinants and psychological factors affecting health. Applies inclusive approaches in medical care, fosters effective communication with all patients, including those with special needs, and designs programmes considering their sociocultural traits. Conducts education and trains staff in inclusion and intercultural competence principles.	BD	EC	5	LO 1 LO 7 LO 13
33	Social medicine	Formation of social medicine as a science. Basics of social medicine. Objects and subjects of social medicine. Socially significant diseases. Methods and forms of organization of medical and social assistance to the decreed segment of the population. Disability as a socio-legal category. Temporary and permanent disability. Examination of disability. Regulatory and legal requirements for the organization and conduct of medical and	BD	EC	5	LO 1 LO 7

		social expertise.				
Cycle of profile disciplines					72	
University component						
1	Promoting the health of childrens and adolescents	Methods of studying, assessing the state of health, physical development of the population. Hygiene of educational activities, physical education of children and adolescents, hardening. Hygiene of nutrition, labor education, training, vocational education. Hygienic requirements for household items. Organization of prevention of coronavirus infection among children.	PD	UC	5	LO 5 LO 7 LO 8 LO 9
2	Examination of the quality of medical care	The procedure for organizing the examination of medical care quality in Kazakhstan. Organization of external and internal examination of medical services' quality. Stages of examination of the quality. Criteria for assessing the quality of medical care. Assessment of correctness of choice of prevention, rehabilitation's methods. Assessment of the degree of achievement of the planned result.	PD	UC	5	LO 5 LO 7 LO 9
3	Health policy and legislation	Public health's modern theories, concepts. Modern healthcare, global trends in developed countries. Public health policy. International Statistical Classification of Diseases and Health-Related Problems. International, national healthcare structures, healthcare system's role and responsibility in addressing issues of providing social and medical care to the population. Reforms of healthcare legislation.	PD	UC	5	LO 5 LO 7 LO 8 LO 9
4	Environmental hygiene	Hygiene of atmospheric air, water, water supply, soil. Hygienic principles of regulation of chemicals in environmental objects. Assessment of the data of sanitary and laboratory control of environmental objects. Modern problems of sanitary protection of atmospheric air, water reservoirs and soil settlements.	PD	UC	5	LO 5 LO 7 LO 11 LO 12
5	Military hygiene and	Actual problems of military hygiene. Basics of the organization of	PD	UC	5	LO 5

	epidemiology	sanitary and hygienic measures during the field deployment of troops. Basics of organization, sanitary supervision conduct, medical control over the nutrition and water supply. Basics of the organization and conduct of sanitary supervision and medical control over the conditions of military labor.				LO 10 LO 11 LO 12
6	Work practice as a specialist in hygiene	Organization of work in the Department of sanitary and epidemiological control. Tasks, structure, forms and methods of work. Functional responsibilities of the chief specialists. Features of the nature and content of the work performed by various management departments. Standards, basic accounting and reporting documentation. Analysis of problems in sanitary and epidemiological welfare of the population.	PD	UC	5	LO 5 LO 6 LO 12 LO 14
7	Occupational medicine	Occupational medicine, the purpose and objectives of the discipline. Occupational safety and health. Features of labor regulation of certain categories of the population. Preliminary and periodic medical examinations of the working population. International cooperation in the field of occupational medicine. Regulatory and legislative framework in the field of occupational medicine.	PD	UC	5	LO 5 LO 7 LO 9 LO 11
8	Advanced epidemiology I	Analysis of the patterns of occurrence and spread of diseases of various etiologies. Measures to prevent diseases, measures aimed at breaking the epidemiological process. Sanitary-preventive, anti-epidemic measures, including forms and methods of epidemiological investigations. Control of the effectiveness of the measures carried out Regulatory and legislative documents in the field of epidemiology.	PD	UC	6	LO 4 LO 5 LO 6
9	Advanced epidemiology II	Epidemiological surveillance, preventive measures, epidemiological features of individual classification groups and current nosological forms of infectious and non-communicable diseases. Causes, conditions of occurrence, spread of non-	PD	UC	5	LO 7 LO 11 LO 12

		communicable diseases. An algorithm for investigating the increase in cases of infectious and non-communicable diseases.				
10	Digitalisation and artificial intelligence in healthcare	Develops skills in digital healthcare systems, managing medical data, and using digital tools for recording, analysis, and reporting. Analyzes AI-driven data to support decisions, assesses digital technology effectiveness, and promotes digital literacy and a culture of technology use among healthcare staff for improved management and care.	PD	UC	5	LO 1 LO 4 LO 6 LO 7
11	Global public health	The impact of human capital on country's sustainable development. Internal political stability and consolidation of society. Demographic policy in Kazakhstan and World. Reproduction of population. Demographic crisis and growth. Negative and positive migration balances. Population structure. Social policy. Scientific knowledge and research. Monitoring of the health status of the population.	PD	UC	6	LO 4 LO 7 LO 14
12	HR-management in healthcare	Introduction to Human Resources Management. Personnel management: goals, concepts and content. Types of management. HR management models. Management in science. Modern HR management technologies. Qualification characteristics, responsibilities, requirements and competencies of an HR manager. Career growth. Development of HR management in Kazakhstan.	PD	UC	6	LO 2 LO 3 LO 14
13	Social and medical insurance	Types of medical insurance. International experience of compulsory social health insurance. Financing of the insurance system. Package of medical services. Purchase of medical services. Remuneration of medical workers in the conditions of compulsory medical insurance. Drug provision. Socially significant diseases. Prevention of diseases.	PD	UC	5	LO 5 LO 7 LO 8
14	Work practice as a specialist in public	Organization of work in healthcare management. Department of sanitary and epidemiological control work organization. Tasks,	PD	UC	4	LO 3 LO 4

	health and state sanitary and epidemiological supervision	structure, methods and forms of work, job responsibilities of chief specialists. Standards, basic accounting and reporting documentation. Conducting an analysis of problems in public health, healthcare. Current sanitary and epidemiological surveillance. Regulatory documents, accounting and reporting documentation.				LO 6 LO 7 LO 9 LO 11 LO 12 LO 14
15	Final assessment Preparation and completion of a comprehensive exam	The comprehensive exam assesses graduates' professional readiness for independent public health work. It confirms achievement of all learning outcomes and ensures awarding a degree with certification as a healthcare specialist, validating their competence and qualification for professional practice in the health sector.	PD	UC	4	LO 1 LO 2 LO 3 LO 4 LO 5 LO 6 LO 7 LO 8 LO 9 LO 10 LO 11 LO 12 LO 13 LO 14
Cycle of profile disciplines					24	
Elective component						
Trajectory "Sanitary and epidemiological control"						
16	Food hygiene	Physiological and hygienic bases of rational and balanced nutrition, hygienic requirements for their organization. Food quality assessment. Genetically modified foods. General hygienic requirements for food enterprises. Scheme of sanitary and epidemiological inspection of food enterprises. Control of the sanitary condition of food enterprises. Standardization of food products, its hygienic and legal significance.	PD	EC	5	LO 5 LO 7 LO 8 LO 11

17	Occupational hygiene	Occupational and production-related diseases. Physiology of labor. Professional risk assessment. Professional physical, chemical, biological factors. Industrial poisons, the nature of their action. Industrial microclimate, their impact on the health of workers. Personal protective equipment. Certification of workplaces according to working conditions. Comprehensive assessment of the health status of employees.	PD	EC	5	LO 6 LO 9 LO 10 LO 11
18	Hygiene of children and adolescents	Hygienic principles of design, construction and requirements for landscaping, equipment of institutions. Hygiene of extracurricular institutions. Hygienic issues of organizing summer wellness work in children's and adolescent groups. Medical and sanitary-epidemiological support for children and adolescents. Sanitary and anti-epidemic regime of institutions.	PD	EC	5	LO 7 LO 8 LO 9 LO 11
19	Communal hygiene	The purpose, objectives and methods of research of communal hygiene. Legislative documents in the field of communal hygiene. Sanitary and epidemiological requirements for communal facilities. Sampling and analysis of laboratory results from municipal facilities. Scheme of sanitary and epidemiological examination of communal facilities. Basic documentation of the Municipal Hygiene Department.	PD	EC	5	LO 6 LO 7 LO 10 LO 11
20	Disinfection case	The place of disinfection in the complex of preventive and anti-epidemic measures. Types, methods and means of disinfection. Organization and implementation of disinfection. Disinfection quality control. Rules for storage, transportation of disinfectants, preparation and storage of working solutions. Sterilization. Modern strategy of medical disinsection and deratization in the conditions of settlements.	PD	EC	4	LO 8 LO 10 LO 11 LO 12
Cycle of profile disciplines					24	
Elective component						
Trajectory “Health Policy and Management”						

21	Accreditation in the healthcare system	Accreditation in healthcare of RK. Legislative and regulatory framework of the accreditation process in RK. Accreditation standards. Accreditation standards for healthcare organizations providing outpatient care. Accreditation of private medical institutions. Rules for organizing and conducting internal and external examinations of medical services quality. Quality control of medical services for the provision of medical care.	PD	EC	5	LO 5 LO 6 LO 7
22	Identification and analysis of risks in the quality system of medical services	Criteria for assessing the degree of risk and checklists in the areas of quality of medical services, circulation of medicines and medical devices. Risk assessment criteria used for preventive monitoring with visits to subjects (objects) in the field of medical services (assistance). Principles of Deming quality management. SWOT analysis. PEST analysis.	PD	EC	5	LO 4 LO 5 LO 7 LO 9
23	Health system database management	Basic concepts of the information system (IS) in healthcare. Digital technologies in healthcare. Classification of databases (DB). Stages of database creation. Information data processing system. Basic requirements for database management systems. Integrated Medical Information System (IMIS). Electronic medical card. Integrated Electronic Medical Record (IEMR). Unified State Health Information System.	PD	EC	5	LO 1 LO 6 LO 7
24	Medical and social protection of the population	Formation of professional knowledge about the factors of physical, mental, social health. The main methods of social protection and public health protection. Organization of preventive direction of medical and social work. Assessment of the directions of social protection in medicine. Organization of social work, medical and social assistance to the population, observing social, moral and ethical norms.	PD	EC	5	LO 2 LO 8 LO 13 LO 14
25	Organization of primary health care	Content of primary health care (PHC). The concept of the organization of primary health care. Compliance with the principles of social honesty, parity and synergy. Organization of	PD	EC	4	LO 3 LO 6 LO 8

		health schools, measures for the prevention and detection of diseases and conditions provided at the level of a person, family and society. Maintaining primary medical documentation and reporting.				LO 13
Preparation and passing of a comprehensive exam)					4	
TOTAL:					300	