



«APPROVE»
Rector of SKMA
M. Rysbekov



2022


EDUCATIONAL PROGRAM

Educational program code	6B10111
Name of the educational program	«Public health»
Level of the educational program:	Bachelor

Shymkent, 2022

The members of the educational program Committee “Public Health” developed the educational program:

Head of the Department “Social Health Insurance
and Public Health”, Candidate of Medical Science, Associate Professor


Sarsenbayeva G.Zh. 

Senior lecturer of the Department “Social Health insurance
and Public Health”

Magay L.N. 

Agreed with employers:

Head of RSI Shymkent
CQCSGS Ministry of health of the RK


Sailaubekyli R. 

Director of the «Association of
private Clinics of South Kazakhstan Region»

Timoshenko M. 


The Chairman of the EPC “Public Health”

Protocol № 11^a from «08» 08 2022y.

Sarsenbayeva G.Zh. 

Approved by the Methodological Council


Vice-rector for Educational and methodical and
Student Well- Being work

Anartayeva M.U. 

Protocol № 13 from «08» 08 2022y.

Approved by the Academic Council

Protocol № 15 from «08» 08 2022y.

<div>ОҢТҮСТІК ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ</div> <div> SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»</div>		
“Social Medical Insurance and Public Health” department		044-58/
Educational program		3 p. out of 26

Passport of the educational program 6B10111 «Public health»

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

- 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.

2. **Professional field:** health Manager (quality health services for strategy and marketing of medical services, organization and methodology of medical services); Manager personnel (HR-M) in health care; specialist of public health (statistician, methodologist); head of Department of organization of health care; the Deputy head of the healthcare institution; the head of

the organization of health; specialist in epidemiology, municipal hygiene, child and adolescent hygiene, occupational hygiene, food hygiene, radiation hygiene, virologist, bacteriologist, parasitologist.

3. Objects of professional activity:

- Government agencies, medical organizations, social protection, medical insurance, pharmaceutical companies and companies, agencies for ensuring the quality of health services, public and professional associations, industrial health services, etc.

types of professional activity:

- organizational and managerial support
- information and analytical support;
- accounting and statistical information;
- control and regulatory information;
- sanitary and educational activities;
- research and development;
- educational (pedagogical)

General information

№	Field name	Note
1	Registration number	
2	Code and classification of the field of education	6B10 Healthcare and social security (medicine)
3	Code and classification of training areas	6B101 Healthcare
4	Group of educational programs	B089 Public health
5	Name of the educational program	“Public Health” (academic Bachelor's degree)
6	Type of EP	New EP
7	Purpose of the EP	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.
8	ISCED level	6
9	NQF level	6
10	SQF level	6.1
11	Distinctive features of the EP	No
	The Univercity partner (JEP)	-
	The Univercity partner (DOP)	-
12	List of competencies	The matrix of correlation of learning outcomes according to the educational program with the formed competencies is formed (<i>Appendix 2.1</i>)
13	Learning outcomes	
14	Form of training	The field value must be obtained from the IS of the specified university.
15	Language of instruction	Kazakh/ Russian
16	Volume of loans	300
17	Academic degree awarded	Bachelor
18	Availability of an appendix to the license for the direction of training	-
19	The presence of the accreditation EP	-
	Name of the accreditation body	-
	Validity period of accreditation	-
20	Information about the disciplines	Information about UC/EC disciplines of GED, BD, PD (<i>Appendix 2.2</i>)

Appendix 2.1

Matrix of correlation of learning outcomes according to the educational program as a whole with the formed competencies

	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12	LO13	LO14
CC1	+	+		+	+									
CC2	+	+					+		+			+	+	
CC3		+				+							+	+

CC4	+		+	+		+	+			+	+		+	
CC5			+						+	+		+		+
CC6		+	+			+	+	+			+	+		
CC7			+				+	+				+		+
CC8	+	+			+								+	+

Core competencies:

CC 1	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.
CC 2	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.
CC 3	Defines strategies, management of processes and activities (including innovation) with decision-making and responsibility at the level of institutional structures of public health.
CC 4	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.
CC 5	Demonstrates leadership qualities, innovation and independence in work and educational activities in new contexts that require problem solving.
CC 6	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.
CC 7	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
CC 8	Observes in practice ethical and legal norms based on psychology and cultural studies of modern society.

Learning outcomes:

LO 1	Applies the basic concepts and methods of public health based on the most important aspects of modern history,
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	philosophy and socio-political knowledge for effective intersectoral interaction with the use of modern information technologies.
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.
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.
LO 4	Applies critical thinking skills in analyzing and solving problems and making science-based decisions in the field of healthcare.
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.
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.
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.
LO 8	Possesses the developing, organizing, conducting and effectiveness of sanitary-anti-epidemic and sanitary-preventive measures to protect public health and prevent diseases.
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.
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.
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.
LO 12	Capable to organize sanitary and epidemiological control of the environment, border protection from the import and spread of particularly 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.
LO 13	Observes social, moral and ethical norms, improving self-development skills and implementing social work and organization of medical and social assistance among the population.
LO 14	Applying scientific knowledge, he is able to conduct research in the field of public health protection.

Appendix 2.2

Information about the disciplines

№	Name of the discipline	Brief course description (30-50 words)	Number of credits	Formed competencies (codes)	Formed Learning outcomes (codes)
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.	5	CC2 CC5 CC8	LO1 LO4 LO14
2	Philosophy	Philosophy as a science. Philosophy and worldview. The Philosophy role of in implementation of third modernization of Kazakhstan. The origin and essence of consciousness. Cognition as a philosophy problem. Education, science, technology, technology. Society and culture. Religion and philosophical knowledge. Civilizational identification of Kazakhstan in the global world. Continuous personal and professional growth.	5	CC2 CC4 CC5 CC6	LO1 LO3 LO13
3	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	4	CC5 CC6 CC8	LO1 LO3 LO4

		the development of Kazakhstani. Morphology and language of culture. Semiotics and anatomy of culture. Cultural heritage of nomads. Kazakh culture the context modern world processes Cultural policy of Kazakhstan.			
4	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.	4	CC2 CC4 CC5 CC7	LO1 LO2 LO3
5	Foreign language	Phonetic norms and grammatical forms and constructions of modern English. Mastering the lexical and terminological minimum. Development of educational and professional speech: development of skills and abilities of reading, listening, taking notes of medical literature; compilation of written texts on educational and professional topics. Dissemination of knowledge and practical skills applicable to health.	10	CC2 CC5 CC8	LO1 LO3 LO4
6	Kazakh (Russian) language	Carries out correct choice, use of language and speech to solve certain problems of communication and cognition, grammatical knowledge system; uses information as a tool to influence the interlocutor in situations of cognition and communication; participates in communication in various situations of different spheres; makes texts in accordance with generally accepted norms.	10	CC2 CC3 CC4 CC6	LO1 LO3 LO4
7	Information and communication technologies	Role of ICT in the sectors of a developed society. Standards in the field of ICT. Introduction to computer systems. Architecture of computer systems. Software. Human-computer interaction. Database systems. Data analysis, management. Networks, telecommunications. Cybersecurity. Internet technologies. Cloud and mobile technologies. Multimedia technologies. Smart technologies. IT in medicine.	5	CC1 CC2 CC6	LO1 LO6 LO9

		Prospects for the development of ICT.			
8	Physical education	The basics of forming a healthy lifestyle. Physical activity and health. Medical and physical culture. Athletics. Short-distance running. Cross-training. Relaxation exercises. Relay races. Outdoor games. Gymnastic. National games. Adaptation to physical exercises at different age stages.	8	CC1 CC2	LO1 LO3 LO8
Cycle of general education disciplines Elective component					
9	Ecology and life safety	The purpose, objectives, methods of ecology research. The place of ecology in solving modern economic problems. Sources of pollution, their composition. The causal relationship of the general morbidity of the population with environmental factors, solutions aimed at reducing the burden on the environment. Ensuring the safety of life.	5	CC1 CC5 CC6 CC8	LO1 LO2 LO7
10	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.	5	CC1 CC5 CC6 CC8	LO1 LO3 LO5
Cycle of basic disciplines University component					
11	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.	4	CC1 CC2 CC5	LO1 LO2 LO5

		Health and healthcare Basics. Modern theories, concepts CIT the understanding of public health.			
12	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 the diagnosis and treatment of certain diseases.	3	CC1 CC4 CC8	LO1 LO2
13	Basics of anatomy	Features of systems, organs, cells and subcellular structures of a healthy organism. The main patterns of tissue structure in different age periods; importance for medicine; terminology, basic techniques for working with drugs, textbooks and equipment; the essence of research methods for various parts of a person.	3	CC1 CC2 CC8	LO1 LO4 LO9
14	Basics of physiology	The functions of a healthy human body and the mechanisms of their regulation. Fundamental theoretical knowledge about the structural and functional organization of life processes at the cellular, tissue and organ levels, the disclosure of patterns of their development and, in this regard, the possibility of purposeful influence on them.	3	CC1 CC2 CC8	LO1 LO4 LO9
15	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.	3	CC1 CC2 CC3 CC8	LO1 LO9 LO14
16	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	5	CC1 CC2 CC4 CC8	LO1 LO8 LO9

		and drugs on the body of pharmaceutical workers, as a risk factor for health. General laws of pharmacoeconomics and pharmacoepidemiology.			
17	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.	5	CC1 CC4 CC5 CC7	LO7 LO9 LO12
18	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.	5	CC5 CC6 CC8	LO4 LO8
19	Biostatistics	Basics of biostatistics. Descriptive statistics. Basics of the theory 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.	5	CC1 CC3 CC6 CC7	LO1 LO9 LO14
20	Statistics in healthcare	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.	5	CC1 CC2 CC3	LO1 LO6 LO9 LO14
21	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	4	CC5 CC8	LO3 LO5

		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.			LO13 LO14
22	General hygiene	The subject of general hygiene, content, purpose, tasks, methods. The Code of the Republic of Kazakhstan on the Health of the people and the health system. The impact of air pollution, soil and water quality on human health, its prevention. Nutrition and human health. Health protection of children and adolescents. Hygienic characteristics and prevention of harmful effects of the main harmful factors of the production environment on human health.	5	CC2 CC4 CC7 CC8	LO2 LO7 LO8
23	Basics of Public Health	Basic concepts and definitions used in public health. Medical and social aspects of health and the basics of demography. Factors affecting the health of the population. Health problems of the decreed segments of the population. Physical development, medical and social aspects of the health of individual population groups (women, children and adolescents, the older generation). Distributes knowledge about the preservation of health, observing social, moral and ethical standards.	4	CC3 CC5 CC6	LO1 LO3 LO13
24	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.	3	CC1 CC2 CC8	LO1 LO7 LO14
25	Microbiology, Virology and Parasitology	Systematics and nomenclature of microorganisms. Morphology and physiology of bacteria. General virology. Genetics of bacteria and viruses. Antibiotics. Microbiological bases of disinfection, asepsis, antiseptics. Infection. Immunity. Immunobiological preparations.	5	CC1 CC4	LO1 LO7 LO8 LO12

		Sanitary microbiology of water, soil, air, and food products. Private medical microbiology. Principles of microbiological diagnosis of the most important bacterial and viral diseases. Medical parasitology. Biological foundations of the prevention of human parasitic diseases.			
26	Epidemiology	Basic principles and concepts of descriptive epidemiology. The main tools of epidemiological analysis. Analytical epidemiology, basic research schemes and their application to public health research. Protection of sanitary and epidemiological well-being	5	CC1 CC4	LO2 LO7 LO8
27	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. Research in public health.	5	CC5 CC6 CC7	LO2 LO3 LO14
28	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.	5	CC1 CC2 CC5 CC6	LO4 LO6 LO14
29	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 radiation and nuclear accidents. Modern problems of medical ecology. Classification of environmental risk factors for public health.	6	CC3 CC4 CC5 CC6	LO7 LO8 LO9

30	Disease prevention and healthy lifestyle	Lifestyle: definition, categories. Quality of life, health and longevity. The basics of promoting a healthy lifestyle. Prevention of alimentary non-communicable diseases. Maternal and child health protection. Physical activity and health. Prevention of infectious diseases.	5	CC2 CC4 CC7	LO2 LO7 LO13
31	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.	5	CC1 CC2 CC4 CC8	LO10 LO11 LO12
32	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.	5	CC3 CC4 CC6 CC7	LO2 LO5 LO6
33	Introduction to health legislation and economics	Basics of economics and healthcare financing. Concepts and principles of economics. Systems and forms of healthcare financing in the countries of the world. Intersectoral interaction. Regulatory legal acts in the field of health economics. Macroeconomics and microeconomics. Income in healthcare. Budget financing in healthcare. Paid services: direct payments for medical care. Accounting and reporting documentation.	5	CC1 CC7 CC8	LO1 LO5 LO6
34	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	5	CC4 CC5	LO1 LO2 LO5

		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, classification.			
35	Regulatory documents in sanitary and epidemiological surveillance	Regulatory and legal documents in sanitary and epidemiological welfare of the population. Types of regulatory documents: Sanitary rules, Hygienic standards, rules, Technical regulations, Uniform sanitary-epidemiological and hygienic requirements for goods of the Eurasian Economic Union. Current regulatory legal acts in the field of occupational hygiene, hygiene of children and adolescents, nutrition and communal hygiene.	5	CC4 CC5 CC6 CC8	LO5 LO7 LO8
36	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.	5	CC1 CC3 CC7 CC8	LO4 LO5 LO14
37	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.	5	CC4 CC5 CC6 CC8	LO7 LO8 LO10 LO11
38	Nutriciology	Physiological and hygienic bases of rational and balanced nutrition, hygienic requirements for their organization. Food quality assessment. Genetically modified foods. General hygienic	5	CC4 CC5 CC7	LO5 LO7 LO9



		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.			LO11
39	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.	5	CC4 CC5 CC6 CC7	LO7 LO8 LO11 LO14
40	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.	2	CC2 CC7 CC8	LO1 LO6 LO9
41	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 implementation of specific prevention. The procedure for investigating post-vaccination complications. Organization and carrying out disinfection, sterilization, deratization. Epidemiological diagnostics.	5	CC4 CC5 CC6	LO2 LO7 LO8
Cycle of basic disciplines Elective component					
42	Sociology and psychology of health	Health as a medico-social, socio-economic and socio-political category. The idea of health psychology as the science of psychological causes of health, means and methods of its	4	CC1 CC3 CC7	LO1 LO7 LO13

		preservation, strengthening and development. The essence of the sociological approach to health analysis. Methods of assessment and self-assessment of mental and social health; psychological mechanisms of healthy behavior.		CC8	
43	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 social expertise.	4	CC1 CC3 CC7 CC8	LO1 LO7 LO13
Cycle of profile disciplines					
University component					
44	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.	5	CC4 CC5 CC7	LO5 LO7 LO9 LO11
45	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.	5	CC2 CC4 CC7	LO5 LO7 LO11 LO12
46	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	5	CC2 CC4 CC7	LO5 LO7 LO8 LO9



		requirements for household items. Organization of prevention of coronavirus infection among children.			
47	Military hygiene and epidemiology	Actual problems of military hygiene. Basics of the organization of 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.	5	CC4 CC5 CC6 CC7	LO5 LO10 LO11 LO12
48	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.	5	CC4 CC6 CC7 CC8	LO5 LO7 LO9
49	Health policy and legislation	Modern theories and concepts of public health. 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 healthcare legislation.	5	CC3 CC4 CC6 CC8	LO5 LO7 LO8 LO9
50	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.	6	CC2 CC3 CC4 CC7	LO4 LO5 LO6
51	Advanced Epidemiology II	Epidemiological surveillance, preventive measures, epidemiological	5	CC4	LO7

		features of individual classification groups and current nosological forms of infectious and non-communicable diseases. Causes, conditions of occurrence, spread of non-communicable diseases. An algorithm for investigating the increase in cases of infectious and non-communicable diseases.		CC5 CC6 CC8	LO11 LO12
52	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.	6	CC3 CC5 CC7	LO4 LO7 LO14
53	Information technologies in healthcare	Basic concepts of information system (IS) in healthcare. Digital technologies in healthcare: accessibility and quality of medical care, as well as issues of disease prevention. Information technologies in scientific research of the healthcare system, medical education and biomedical research.	5	CC3 CC5 CC6	LO1 LO3 LO6 LO7
54	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.	6	CC3 CC6	LO2 LO3 LO14
55	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.	5	CC2 CC4 CC6	LO5 LO7 LO8
56	Work practice as a	Organization of work in the Department of sanitary and	5	CC4	LO5

	specialist in hygiene	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.		CC5 CC6 CC8	LO6 LO12 LO14
57	Work practice as a specialist in public health and state sanitary and epidemiological supervision	Organization of work in healthcare management. Department of sanitary and epidemiological control work organization. Tasks, 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.	4	CC5 CC6 CC7 CC8	LO3 LO4 LO6 LO7 LO9 LO11 LO12 LO14
58	Preparation and passing of a comprehensive exam		4		
Cycle of profile disciplines					
Elective component					
Cycle of profile disciplines					
Elective component					
Trajectory “Sanitary and epidemiological control”					
59	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.	5	CC2 CC3 CC4 CC5	LO5 LO7 LO8 LO11

60	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.	5	CC4 CC5 CC6	LO6 LO9 LO10 LO11
61	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.	5	CC3 CC5 CC6 CC7	LO7 LO8 LO9 LO11
62	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.	5	CC2 CC4 CC7	LO6 LO7 LO10 LO11
63	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.	4	CC2 CC4 CC7	LO8 LO10 LO11 LO12

Cycle of profile disciplines
Elective component

Trajectory “Health Policy and Management”

64	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.	5	CC2 CC3 CC4	LO5 LO6 LO7
65	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.	5	CC3 CC6 CC7	LO4 LO5 LO7 LO9
66	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.	5	CC5 CC6 CC7	LO1 LO6 LO7
67	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.	5	CC4 CC6 CC7 CC8	LO2 LO8 LO13 LO14

68	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 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.	4	CC2 CC3 CC4 CC8	LO3 LO6 LO8 LO13
		TOTAL:	300		

Appendix 5

The volume of loans disbursed by modules of the educational program

Course of study	Semester	Number of mastered modules	Number of studied disciplines		Number of credits KZ						Total hours	ECTS	Number	
			UC	EC	Theoretical training	Educational practice	Manufacturing practice	Undergraduate practice	Final certification	Total			Exam	Differentiated credit
1	1	5	8	-	30					30	900	30	7	1
	2	4	6	1	30					30	900	30	6	1
2	3	6	7	-	30					30	900	30	6	1
	4	5	8	-	28	2				30	900	30	6	2
3	5	4	6	-	30					30	900	30	6	-
	6	5	4	1	25		5			30	900	30	5	1
4	7	3	5	-	25		5			30	900	30	5	1
	8	5	6	-	30					30	900	30	6	-
5	9	2	1	5	30					30	900	30	5	-
	10	5	4	-	22			4	4	30	900	30	5	2
Total:		44	55	7	280	2	10	4	4	300	9000	300	57	9

The curriculum for the whole period of study, indicating the modules of the educational programme (In the application)