



ОРИГИНАЛ



### EDUCATIONAL PROGRAM

Educational program code                    6B10105


Name of the educational program            “Public health”

Level of the educational program:           Bachelor

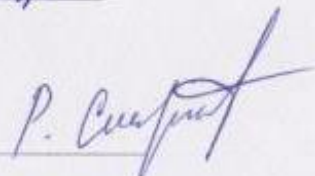
The educational program was developed by the members of the educational program Committee “Public Health”:

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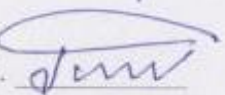
Senior lecturer of the Department “Social Health insurance and Public Health”

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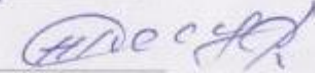
Agreed with employers:  
Head of RSI Shymkent  
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Sailaubekyli R. 

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

Timoshenko M.G. 

The Chairman of the EPC “Public Health”

Sarsenbayeva G.Zh. 

Protocol № 11 from « 08 » 08 / 2022 y.


Approved by the Methodological Council  
Vice-rector for Educational and methodical and Student Well- Being work

Anartayeva M.U. 

Protocol № 13 from « 08 » 08 2022 y.

Approved by the Academic Council

Protocol № 15 from « 08 » 08 2022 y.

ОҢТҮСТІК ҚАЗАҚСТАН <b>MEDISINA</b> <b>AKADEMIASY</b> «Оңтүстік Қазақстан медицина академиясы» АҚ	 SOUTH KAZAKHSTAN <b>MEDICAL</b> <b>ACADEMY</b> АО «Южно-Казakhstanская медицинская академия»
“Social Medical Insurance and Public Health” department Educational program	044-58/ 3 p. out of 25

### Passport of the educational program 6B10105 “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	Acting EP
7	Purpose of the EP	Organizational and managerial activities in the health care system aimed at improving public health and taking sanitary and hygienic and preventive measures among the population.
8	ISCED level	6
9	NQF level	6
10	SQF level	6.1
11	Distinctive features of the EP	No
11	The Univercity partner (JEP)	-
11	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	240
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
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	Understands the basic definitions, models and concepts of health, diseases, the most important aspects of history, philosophy and socio-political knowledge, forming communication skills within a given topic with the development of knowledge of languages.
LO 2	Understands the methods of determining the basic epidemiological and demographic parameters for the implementation of measures to protect public health and sanitary-epidemiological welfare of the population.
LO 3	Identifies population health risk factors for calculating, evaluating and analyzing biomedical statistics using information and communication technologies as part of informatization of the modern healthcare system.
LO 4	Applies various methods and methods of organizing the management of health care institutions in solving practical problems for the protection of public health and sanitary-epidemiological welfare of the population.
LO 5	Applies standards when collecting data to determine health outcomes, participating in ensuring sanitary and epidemiological well-being and conducting anti-epidemic measures.
LO 6	Carries out visual agitation and promotion of a healthy lifestyle, effectively presenting information, interacting with the media, within the framework of the CSHI and medical legislation.
LO 7	Implements social work among the decreed segment of the population explaining issues of medical and hygienic education, lifestyle correction, medical and social aspects of major diseases, improving teamwork skills and observing moral and ethical standards.
LO 8	Conducts current and preventive surveillance, assessment and correction of activities in the field of public health protection and sanitary and epidemiological welfare of the population, identifying the main trends in changes in the socio-economic environment.
LO 9	Defines modern management and control methods for human resource management and registration of necessary accounting and reporting documentation in the healthcare information system.
LO 10	Examines the impact of both the political and economic situation on the health system and the sanitary and epidemiological well-being of the population, analyzing and evaluating scientific publications and research.

*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)
<b>Cycle of general education disciplines</b>					
<b>Compulsory component</b>					
1	Modern history of Kazakhstan	Kazakhstan on the way to independence. Implementation of the Soviet state building models. Attracting foreign investment of Kazakhstan and health care. Ethno-demographic processes and strengthening of interethnic consent. Kazakhstan is a state recognized as modern the world. Formation of a nation of a single future.	5	CC2 CC5 CC8	LO1 LO4 LO6 LO10
2	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.	5	CC2 CC4 CC5 CC6	LO1 LO2 LO9
3	Psychology and Cultural Studies	Psychology of personality and role in the system of human sciences. Emotions and volitional processes. Interests spiritual of personality. Psychology of communication. Models conflict interactions. Concept culture. Culture of the nomads of Kazakhstan. Kazakh culture in XV-XX centuries. Psychology of lifestyle of Kazakhstan XXI century.	4	CC5 CC6 CC8	LO1 LO4 LO6 LO10
4	Sociology and political science	Individual and society. Sociological research. Family and modernity. Education and social inequality. Health and medicine. Politics and society. Elite and political leadership. State and civil society. Political culture and political behavior. Political conflicts and crises. World politics and modern international relationships.	4	CC2 CC4 CC5 CC7	LO1 LO3 LO10
5	Foreign language	Greetings and introducing yourself. Describing appearance. Family members and family types. Daily routines. Free time. Food and	10	CC2 CC5	LO6 LO10



		nutrition. Healthy food. Man and health. Homeland and hometown. Travel and geographical location. House and housing. Environmental problems. Education and professional competencies. Healthy lifestyle. Modern gadgets. Science and technology.		CC8	
6	Kazakh (Russian) Language	Languages and education. Terminology of science. Specialty language and professional culture of speech. Types of professional communicative situations. Written and oral business communication. Terminology of science. Culture of professional speech. Types of professional communicative situations. Actual problems of modern science. Text as the basic unit of verbal communication. Scientific description.	10	CC2 CC3 CC4 CC6	LO6 LO10
7	Information and communication technology	An ICT role in key sectors of development of society. Introduction computer systems. 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. Industrial ICT. Prospects of development of ICT.	5	CC1 CC2 CC6	LO3 LO9
8	Physical education	Training specifically - running exercises. General concepts of basketball. Learning to run short distances. High start and finish training. Cross running for long distances. Working with a baton. Low start and takeoff training. Long jump training. Teaching movement techniques, jumping.	8	CC1 CC2	LO1 LO3 LO4
<b>Cycle of general education disciplines</b>					
<b>Elective component</b>					
9	Leadership and power	Key competence's areas for management. The concept of “leadership”, “management”. The most important elements of leadership. Leadership styles, their characteristics. Leadership in the context of health policy, practice. Destructive leadership, its elimination. Innovative approaches to strengthening health systems. The concepts of power, influence, authority, authority. Power types. The relationship between power types and leadership.	5	CC1 CC5 CC6 CC8	LO4 LO9 LO10

10	Fundamentals of Economics and Law	Legal education, anti-corruption culture development of future specialists within framework of state program “Rukhani Zhangyru”. Legal status of medical workers, their social security. Code of RK “On population health and healthcare system”. Market and competition. Theory of firm and entrepreneurship. Development features of national economy in RK. State policy in medical industry development.	5	CC1 CC5 CC6 CC8	LO1 LO6 LO7
11	Ecology and life safety	Purpose, objectives, methods of ecology research. The place and role of ecology in solving economic problems. Environment, human health. Sources of pollution, 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	LO1 LO2 LO3
<b>Cycle of basic disciplines University component</b>					
12	Biostatistics	Fundamentals of biostatistics. Fundamentals of the theory of testing statistical hypotheses. Comparison of the mean values of the trait of two groups. Non-parametric alternative. One-way analysis of variance. Correlation analysis. Regression analysis. Analysis of qualitative features. Analysis of time series. Application of software for statistical analysis of biomedical data.	5	CC1 CC3 CC6 CC7	LO3 LO4
13	Biochemistry	Biological functions, structural organization of proteins. Enzymes. The role of membranes in metabolism, their diversity. Vitamins. Specific, general pathways of catabolism. Bioenergetics. Metabolism of carbohydrates, lipids, proteins. Biochemistry of hormones. Biochemistry of the liver, kidneys. Hemprotein exchange. Biochemistry of blood. Biochemistry of muscular, connective, bone, dental, nervous tissues.	3	CC1 CC2 CC8	LO1 LO4 LO7
14	Introduction to Environmental Hygiene	The subject of hygiene, its goals, objectives. Sanitary and epidemiological monitoring of the state of air, soil, water. Nutrition is a factor of preserving and strengthening health. Hygienic assessment of the health and physical development of children and adolescents.	5	CC2 CC4 CC7 CC8	LO1 LO3 LO4 LO6

		Immunoprophylaxis. Sanitary-anti-epidemic and sanitary-preventive measures.			
15	Introduction to Legislation and Health Economics	Basics of health economics. The concepts of economics in health care. Macroeconomics and microeconomics. Revenues in health care. Paid services: direct payment for the provision of medical care. Basics of health financing. Systems and forms of health care in the world. Budget financing in health care.	5	CC1 CC7 CC8	LO5 LO6
16	Introduction to Hospital Management	Fundamentals of labor process and human resource management in healthcare. Fundamentals of planning in healthcare. Fundamentals of management of a medical organization: leadership and power. Fundamentals of conflict management. Modern problems of hospital management development. Employee motivation. Fundamentals of professional ethics.	5	CC2 CC4 CC7 CC8	LO3 LO7 LO9
17	Genetics and Molecular biology	Fundamentals of Mendelian genetics. Patterns of inheritance traits. Sex-linked inheritance. Fundamentals of the chromosome theory of heredity. Macromolecules information the cell. Matrix synthesis of nucleic acids. Transcription. Protein biosynthesis. Gene expression's regulation. Violation of genetic homeostasis, manifestation in human pathology. Molecular genetic research methods. Substances' transport across membranes.	5	CC1 CC2 CC3 CC8	LO3 LO4 LO7
18	Environmental hygiene	Hygiene of atmospheric air, water, water supply, soil and their sanitary protection. Hygienic principles of regulation of chemicals in environmental objects. Assessment of the data of sanitary and laboratory control of environmental objects. Legislative documents and sanitary-epidemiological requirements for communal objects. Scheme of sanitary and epidemiological examination of communal objects.	10	CC2 CC4 CC7	LO4 LO6 LO7 LO8
19	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. Integrated Medical Information System (IMIS). Electronic medical card. Integrated Electronic Medical Record (IEMR). Unified State Health Information	5	CC3 CC5 CC7	LO3 LO9 LO10



		System.			
20	Microbiology	Morphology and physiology of bacteria. General virology. Genetics of bacteria and viruses. Antibiotics. Microbiological bases of disinfection, asepsis, antiseptics. Infection. Immunity. Immunobiological preparations. Private medical microbiology. Principles of microbiological diagnostics of the most important bacterial and viral diseases. Medical parasitology. Microbiological diagnosis of human parasitic diseases.	5	CC1 CC2 CC4	LO1 LO2 LO4 LO5
21	Public health	Basic concepts and definitions used in public health. Public health development stages. Medical, social aspects of a healthy lifestyle. Demographics. Morbidity of the population, the main methods of studying morbidity. Physical development, medical and social aspects of the health of individual population groups.	5	CC1 CC2 CC7	LO1 LO2
22	Environment and health 1	Subject the main risk factors of environmental pollution (water, air) for human health. Introduces the role of natural and anthropogenic factors in the formation of public health. Assessment and corrective measures in the field of public health and population protection.	5	CC1 CC4 CC5 CC7	LO1 LO3 LO4
23	Environment and health 2	The subject, goals, and objectives of radiation hygiene. Research methods. Sources of ionizing radiation, their characteristics. Modern principles of rationing: Norms of Radiation Safety, SanNaR. 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.	5	CC3 CC4 CC5 CC6	LO3 LO4 LO5
24	Basics of anatomy	The concept of anatomy, its place among the biological sciences. Anatomical nomenclature. Movement apparatus: structure, functions, blood supply, venous outflow, innervation, age-related features. Nervous system and sense organs. General anatomy of cardiovascular system. Anatomy of digestion. Characteristics of respiratory system. Urogenital system. Anatomy of endocrine glands.	5	CC1 CC2 CC8	LO1 LO2
25	Fundamentals of research. Bioethics	Causes and sources of biomedetics. Basic principles, rules of biomedical ethics. Responsibility for inaction and wrong actions. The principle of respect for autonomy of individual. Taking medical	5	CC5 CC8	LO3 LO5 LO7

		measures for human development. Reproductive health. Reproductive choice. Human cloning. Medical and genetic counseling moral aspects. The Nuremberg Code and the Helsinki Declaration.			
26	Fundamentals of health promotion	Lifestyle: definition, categories. Quality of life, health and longevity. Fundamentals of healthy lifestyle promotion. Prevention of alimentary non-communicable diseases. Maternal and child health care. Prevention of infectious diseases. Physical activity and health.	5	CC2 CC4 CC7	LO5 LO6 LO7
27	Fundamentals of Health Management	Globalization of healthcare in the system of public health protection. Health and healthcare management practice in foreign countries. Healthcare management system of the RK. Unified management system of the company. Internal organization and management function. Management purpose and objectives. Management methods: classification, orientation, content. Management principles: concept, classification.	5	CC4 CC5	LO1 LO4 LO6 LO9
28	Fundamentals of physiology	The concept of the body and homeostasis. Physiological processes and functions of the body. Neurohumoral mechanisms of regulation of physiological functions. Physiology of body systems. Metabolism and energy. Food. Thermoregulation. Sensor systems. Higher nervous activity. Physiology of labor activity.	5	CC1 CC2 CC8	LO1 LO2
29	Fundamentals of 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. Protection of sanitary and epidemiological welfare and implementation of anti-epidemic measures. Application of research and analysis results for policy development. Epidemiological surveillance, epidemiological diagnostics, epidemiological analysis.	5	CC1 CC4	LO1 LO2 LO5 LO6
30	Psychology of health	Definition of health psychology and research objectives. The idea of health psychology, means and methods of its preservation, strengthening, development. Methods of assessment, self-assessment of mental and social health; study of factors affecting attitudes to health; psychological mechanisms of healthy behavior; prevention of mental and psychosomatic diseases.	2	CC2 CC4 CC6	LO1 LO2 LO5 LO6

31	Sociology of Health	Health sociology object and subject. Health as a medico-social, socio-economic and socio-political category. The essence of sociological approach to health analysis. Formation and development of sociological study of health abroad and in the RK. Social differences in population health status within countries. Lifestyle influence on various social health groups.	3	CC1 CC3 CC7 CC8	LO1 LO2 LO6 LO7
32	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 employees of medical organizations and pharmaceutical enterprises. General laws of pharmacoeconomics and pharmacoepidemiology.	4	CC1 CC2 CC4 CC8	LO1 LO5 LO6 LO7
33	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
<b>Cycle of basic disciplines</b>					
<b>Elective component</b>					
34	Work practice as a medical statistician's assistant	Acquaintance with organization of healthcare institution's statistical work. Familiarization with the work on the compilation of periodic statistical reporting and one-time reports of healthcare organizations on the forms and in terms established by the authorized agency. Carries out verification of the correctness of the received data, their comparability on separate units with the data for previous periods. Systematizes and processes digital data.	2	CC2 CC7 CC8	LO1 LO3 LO4
35	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 (PVO). Organization	5	CC4 CC5 CC6	LO3 LO4 LO5 LO7

		and carrying out disinfection, sterilization, deratization. Epidemiological diagnostics.			
<b>Cycle of profile disciplines</b>					
<b>University component</b>					
36	Occupational hygiene	Comprehensive assessment of the health status of employees. Preliminary, periodic medical examinations. Professional risk assessment. Certification of workplaces according to working conditions. Occupational medicine in industry, occupational hygiene of female and adolescent health workers. Sanitary standards, the main directions of hygiene and occupational safety of adolescents in modern conditions.	8	CC4 CC5 CC6	LO5 LO7 LO8 LO10
37	Healthy nutrition and food safety	Physiological and hygienic bases of rational 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, legal significance.	8	CC4 CC5 CC7	LO4 LO5 LO7
38	Fundamentals of quality assurance	Accreditation in healthcare of the Republic of Kazakhstan. State legislative and regulatory framework of accreditation process. Accreditation standards for healthcare organizations providing outpatient care. Private medical institutions' accreditation. Rules for organizing and conducting internal and external examinations of medical services' quality. Quality control of medical services of medical care provision.	4	CC3 CC6	LO4 LO5 LO7
39	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.	8	CC3 CC4 CC6 CC8	LO8 LO9
40	Advanced Epidemiology I	Patterns of occurrence and spread of diseases of various etiologies.	5	CC2	LO4

		Measures to prevent diseases, measures aimed at breaking the epidemiological process. Control of preventive measures. Sanitary-preventive, anti-epidemic measures, including forms and methods of disinfection, sterilization, disinsection, deratization. Regulatory and legislative documents in the field of epidemiology.		CC3 CC4 CC7	LO5 LO7
41	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-communicable diseases. An algorithm for investigating the increase in cases of infectious and non-communicable diseases. Regulatory and legislative documents in the field of epidemiology.	5	CC4 CC5 CC6 CC8	LO5 LO7 LO8 LO10
42	Health promotion and disease prevention I	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 the population.	5	CC2 CC4 CC7	LO4 LO5 LO6
43	Health promotion and disease prevention II	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, adolescents, able-bodied and elderly population. Sanitary and anti-epidemic regime of institutions.	5	CC3 CC5 CC6 CC7	LO7 LO8 LO9 LO10
44	Writing and defence of a thesis (project) or passing a comprehensive examination		12		
<b>Cycle of profile disciplines</b>					
<b>Elective component</b>					
45	Work practice as a specialist in state sanitary	The role and legislation of the SSEC in the protection, promotion of public health. Current preventive sanitary supervision in field of	2	CC5 CC6	LO4 LO5



	and epidemiological supervision	hygiene. Accounting and reporting documentation. Promotion of a healthy lifestyle at inspected facilities. Application of various methods to solve practical problems in protection of sanitary epidemiological welfare of population		CC7 CC8	LO8 LO9
46	Work practice as a public health specialist	Organization of work in healthcare management. Tasks, structure, methods and forms of work, job responsibilities of chief specialists, the nature and content of their work. Standards, basic accounting and reporting documentation. Conducting analysis of problems in field of public health and public health. Using the acquired knowledge for original development.	2	CC5 CC6 CC7 CC8	LO8 LO9 LO10
<b>Cycle of profile disciplines</b> <b>Elective component</b> <b>Trajectory “Health Policy and Management”</b>					
47	Compulsary social medical insurance	Types of medical insurance. International experience of compulsory social health insurance. Financing of the insurance system. List of medical services. Purchase of medical services. Salary of medical workers in the conditions of MSHI. Drug provision. Socially significant diseases. Prevention of diseases.	4	CC2 CC4 CC6	LO6 LO7
48	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. Development of HR management in Kazakhstan.	4	CC3 CC6	LO4 LO5 LO8
<b>Cycle of profile disciplines</b> <b>Elective component</b> <b>Trajectory “Sanitary and epidemiological control”</b>					
49	Methods of sanitary and hygienic research	Objects, types, methods and tasks of hygienic research. Hygienic laboratory, types, structure and functions. Equipment and instruments used in hygienic research. Sanitary and bacteriological studies of food products in practice. Methods of hygienic research of atmospheric air in populated areas. Methods of hygienic research of	4	CC4 CC5 CC6 CC8	LO4 LO5 LO8 LO9

		the soil of populated areas.			
50	State sanitary and epidemiological supervision	Role and legislation of the DSSEC in public health protection and promotion. Current and preventive control in the field of sanitary and epidemiological welfare of the population. The health information systems’ accounting and reporting documentation. Various methods of solving practical problems in protection of sanitary and epidemiological welfare of population.	4	CC4 CC5 CC6 CC7	LO7 LO8 LO10
		<b>TOTAL:</b>	<b>240</b>		



**Evaluation Criteria for EP 6B10105 ‘Public Health’ Bachelor's degree (SOSE 2022).**

LO of EP	Unsatisfactory	Satisfactory	Good	Excellent
<p>1. Understands the basic definitions, models and concepts of health, diseases, the most important aspects of history, philosophy and socio-political knowledge, forming communication skills within a given topic with the development of knowledge of languages.</p>	<p>1) Does not know basic public health practices.            2) Does not know aspects of modern history and philosophy.            3) Does not articulate methods of applying modern information technology.</p>	<p>1) Can articulate some modern information technologies.            2) Can list some forms and mechanisms of intersectoral interaction.            3) Can name some proposals on protection and improvement of public health and organisation of medical and social assistance.</p>	<p>1) Demonstrates knowledge of the most important aspects of modern history, philosophy, and socio-political knowledge.            2) Demonstrates knowledge of public health assessment, applying knowledge of the indicators of population processes that are studied by demography.            3) Knowledge of cross-sectoral programmes to promote healthy lifestyles and reduce socially significant diseases.            4) Knows the methods used to protect and promote public health at all levels of government.</p>	<p>1) Evaluates the health of an individual and often numerous groups of people to make management decisions.            2) Processes statistical data on the health of the population, which serves as a basis for planning health promotion measures to preserve and improve the health of the population.            3) Interprets the development of modern forms and methods of work of health care organisations, control of the effectiveness of their activities.            4) Determines the development and implementation of a set of preventive measures to reduce the impact of risk factors and strengthen the positive factors that determine the health of the population.            5) Interprets data focused on various factors of ensuring the health of the modern</p>



				population.
2. Understands the methods of determining the basic epidemiological and demographic parameters for the implementation of measures to protect public health and sanitary-epidemiological welfare of the population.	1) Does not know the indicators of health and sanitary-epidemiological well-being of the population. 2) Does not know how to work with data.	1) Knows some criteria for assessing factors affecting the health and sanitary-epidemiological well-being of the population. 2) Demonstrates knowledge of health indicators.	1) Defines only epidemiological or only demographic parameters for the implementation of measures to protect public health and sanitary-epidemiological well-being of the population. 2) Determines methods of analysing statistical data of population health assessment. 3) 3) Is able to interpret graphs and diagrams characterising the state of public health.	1) Defines basic epidemiological parameters for the implementation of measures to protect public health and sanitary-epidemiological well-being of the population. 2) Determines basic demographic parameters for the implementation of measures to protect public health and sanitary-epidemiological well-being of the population. 3) Applies statistical methods to assess the health of the population. 4) Can visually demonstrate the dynamics of public health status.
3. Identifies population health risk factors for calculating, evaluating and analyzing biomedical statistics using information and communication technologies as part of informatization of the modern healthcare system.	1) Does not know about public health risk factors. 2) Does not know how to assess and analyse quality indicators of various environmental objects. 3) Does not draw conclusions or make recommendations.	1) Partially knows the public health risk factors. 2) Does not evaluate and analyse quality indicators of various environmental objects well enough. 3) The formulation of conclusions and recommendations is not correct.	1) Knows about the types of public health risk factors. 2) Can analyse quality indicators of various environmental objects. 3) Draws conclusions and gives incomplete recommendations.	1) Knows the impact of public health risk factors. 2) Orientates in legislative documents. 3) Easily evaluates and analyses quality indicators of various environmental objects. 4) Summarises his/her own conclusions in the form of recommendations without



				difficulty.
4. Applies various methods and methods of organizing the management of health care institutions in solving practical problems for the protection of public health and sanitary-epidemiological welfare of the population.	<p>1) Does not know the methods of organising management of institutions.</p> <p>2) Does not name ways of personnel management.</p> <p>3) Does not know management styles and methods.</p>	<p>1) Can articulate some ways of organising the management of institutions.</p> <p>2) Lists the functions of management.</p> <p>3) Lists models and methods of health facility management.</p>	<p>1) Demonstrates knowledge of the basics of health care management.</p> <p>2) Describes sanitary and epidemiological activities in the Republic of Kazakhstan carried out by state bodies of sanitary and epidemiological service.</p> <p>3) Compares the combination of sectoral and territorial planning for health care development.</p> <p>4) Describes the unity of methodological approaches to planning at all levels of health care management.</p>	<p>1) Defines the directions of public health reforms to form a new management system.</p> <p>2) Interprets the solution of practical tasks for the protection of public health and sanitary-epidemiological well-being of the population.</p> <p>3) Relies on the basic principles of management, based on the choice of optimal solutions, with constant consideration of both internal problems of the organisation and the changing social, economic and political situation.</p> <p>4) Analyses the method of forecasting public health and public health care.</p>
5. Applies standards when collecting data to determine health outcomes, participating in ensuring sanitary and epidemiological well-being and conducting anti-epidemic measures.	<p>Not orientated in the content of the Code of the Republic of Kazakhstan ‘On population Health and the Health Care System’.</p> <p>Does not know the normative-legal acts of health care of the Republic of Kazakhstan.</p>	<p>1) Voices the need to use the articles of the Code of the Republic of Kazakhstan ‘On population Health and the Health Care System’.</p> <p>2) Can name some normative-legal acts of health care.</p>	<p>1) Orientates himself in the articles of the Code of the Republic of Kazakhstan ‘On population Health and the Health Care System’.</p> <p>2) Uses the articles of the Code in his/her practical activity.</p> <p>3) Demonstrates knowledge of SanRu and N.</p>	<p>1) Works within the framework of the Legislation of the Republic of Kazakhstan in the field of health care, regulating public relations in the field of population health protection.</p> <p>2) Analyses the articles of the Code of the Republic of Kazakhstan ‘On population Health and the Health Care</p>



				System’. 3) Guided by the articles of the Code in his/her practical activities to ensure optimal medical care.
6. Carries out visual agitation and promotion of a healthy lifestyle, effectively presenting information, interacting with the media, within the framework of the CSHI and medical legislation.	1) Does not know the principles of forming a healthy lifestyle. 2) Not capable of informing the population about the work of the CSHI system. 3) Not able to explain the importance of immunoprophylaxis.	1) Demonstrates partial knowledge of algorithms of agitation and promotion of healthy lifestyle. 2) Does not fully know the issues of organising preventive measures within the framework of the CSHI system. 3) Cannot explain the effectiveness of immunoprophylaxis of the population.	1) Well oriented in the forms of interaction with the population in promoting healthy lifestyle. 2) Orientates in legislative documents and principles of the CSHI system. 3) Explains the importance of immunoprophylaxis of the population in various infectious diseases.	Able to conduct visual agitation and promotion of a healthy lifestyle, effectively presenting information. 2) Clearly informs and explains the peculiarities of preventive measures within the framework of the CSHI system and medical legislation. 3) Independently assesses the effectiveness of immunoprophylaxis of the population.
7. Implements social work among the decreed segment of the population explaining issues of medical and hygienic education, lifestyle correction, medical and social aspects of major diseases, improving teamwork skills and observing moral and ethical standards.	1) Does not know who belongs to the decreed stratum of the population. 2) Does not name socio-ethical norms.	1) Knows the functions of social support for vulnerable people. 2) Observes social and ethical norms.	1) Knows the preferential drug provision of the decreed population groups. 2) Demonstrates knowledge of social work methods.	1) Participates in medical and sociological research to draw up a social portrait of the population. 2) Recognises the role of the state in social support of vulnerable groups.
8. Conducts current and preventive surveillance, assessment and correction of	Does not possess knowledge in the field of current and preventive sanitary control.	1) Demonstrates partial knowledge of current and preventive sanitary control.	1) Well knows and explains the stages of current and preventive sanitary control.	1) Demonstrates knowledge and understanding of hygienic research methods



<p>activities in the field of public health protection and sanitary and epidemiological welfare of the population, identifying the main trends in changes in the socio-economic environment.</p>	<p>2) Does not possess hygienic methods of carrying out sanitary-epidemiological control of the environment. 3) Not able to evaluate the results of laboratory-hygienic studies of current and preventive sanitary control in the field of sanitary-epidemiological well-being of the population.</p>	<p>2) Possesses hygienic methods of sanitary-epidemiological control of the environment but is unable to explain the results of laboratory tests. 3) Knows the names of legislative documents but cannot explain their scope of application.</p>	<p>2) Applies hygienic research methods in sanitary-epidemiological control. 3) Applies and correctly interprets legislative acts when conducting sanitary and epidemiological control.</p>	<p>and legislative documents in the field of sanitary-epidemiological control. 2) Demonstrates ability and skills in hygienic research methods and legislative documents in the field of sanitary-epidemiological control. 3) Evaluates the results obtained during current and preventive sanitary control and recommends sanitary and epidemiological measures in the field of sanitary and epidemiological well-being of the population.</p>
<p>9. Defines modern management and control methods for human resource management and registration of necessary accounting and reporting documentation in the healthcare information system.</p>	<p>1) Does not name evidence-based solutions to improve performance and quality of work. 2) Does not know the classification of MIS. 3) Does not articulate the structure of the information system. 4) Does not know the methods of analysing accounting documents.</p>	<p>1) Lists models of decision making. 2) Identifies the choice of optimal decisions. 3) Outlines the basic legal principles of information systems. 4) Names the main legal documents.</p>	<p>1) Identifies cause and effect relationships in an organisation. 2) Applies comprehensive information necessary for decision making. 3) Demonstrates knowledge of the unified national health information system of Kazakhstan. 4) Masters the development of the regulatory and legal framework.</p>	<p>1) Formulates sequential actions aimed at achieving a certain goal. 2) Interprets methods to select the best alternative in situations of high uncertainty and risk. 3) Conducts problem discussions, interprets objectives to improve results and quality of work. 4) Identifies principles of information systems design. 5) Interprets minimum requirements for health</p>



				information systems in health care. 6) Interprets an automated information system.
10. Examines the impact of both the political and economic situation on the health system and the sanitary and epidemiological well-being of the population, analyzing and evaluating scientific publications and research.	1) Is unable to apply scientific principles, methods and knowledge in practice and research. 2) Does not know the methods of health assessment. 3) Does not articulate the definition of monitoring.	1) Outlines some of the stages of habitat monitoring. 2) Identifies methods of studying and assessing public health.	1) Uses modern information technologies and mathematical methods of information processing. 2) Is able to establish cause-and-effect relationships between actions and results. 3) Describes the evaluation and analysis of the activities of health care institutions.	1) Uses modern remote and contact research methods to assess the condition and quality of the environment. 2) Analyses the principles of health monitoring and assessment. 3) Evaluates the application of sanitation and hygiene indicators in practice. 4) Interprets scientifically based collection of primary information on the state of public health and activities of health care institutions.



*Appendix 3*

**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	
			BK	KB	Theoretical training	Educational practice	Manufacturing practice	Undergraduate practice	Final certification	Total			Exam	Differentiated credit
1	1	5	6	1	30					30	900	30	6	1
	2	4	7	-	30					30	900	30	6	1
2	3	5	7	-	30					30	900	30	6	1
	4	6	10	-	28	2				30	900	30	8	2
3	5	4	5	-	30					30	900	30	5	-
	6	4	5	1	25		5			30	900	30	5	1
4	7	6	3	4	26			4		30	900	30	5	2
	8	3	3	-	18				12	30	900	30	3	-
<b>Total:</b>		<b>37</b>	<b>46</b>	<b>6</b>	<b>217</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>12</b>	<b>240</b>	<b>7200</b>	<b>240</b>	<b>44</b>	<b>8</b>

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