



EDUCATIONAL PROGRAM

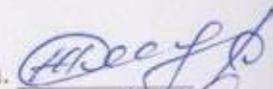
Education Program Code: 7M10140
Title of Educational Program: Public health
Educational Program Level: Master's degree (research and pedagogical direction)

Shymkent, 2025.

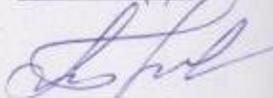
Educational program 7M10140 "Public Health" is developed by members of the Academic Committee of Educational Programs by levels of master's and doctoral studies

The educational program is designed by:

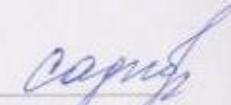
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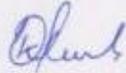
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Minutes No. 8 of 25 03 2025.

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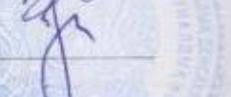
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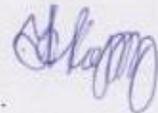
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Approved by the Methodological Council

Vice-Rector for UM&WRM Anartaeva M.U. 

Minutes No. 9 of 02 05 2025.

Approved by the Academic Council

Minutes No. 13 of 02 05 2025.





Passport of the educational program

1. **Mission of the educational program:** Training of scientific, scientific-pedagogical and managerial staff in the educational program "Public Health", possessing advanced professional training, ready to adapt to the rapidly changing conditions of the medical industry through continuous improvement of competence and development of creative initiative.

2. **Purpose of the educational program:** Training of highly qualified specialists in the field of public health with the skills of management, development of measures for the preservation and promotion of public health, their implementation in practice and evaluation of their effectiveness.

3. **Basis of the educational program:** The need in the labor market: the educational program is focused on specialists in the field of health care, capable of conducting scientific research and implementing organizational and management technologies to solve complex problems to protect the health of the population and the development of an effective health care system in Kazakhstan.

4. **Professional standard on the basis of which the educational program was developed:**

Normative documents for the development of the educational program

- Order of the Minister of Science and Higher Education of the Republic of Kazakhstan "On Approval of State Compulsory Standards of Higher and Postgraduate Education" dated July 20, 2022 № 2.
- Order of the Minister of Health of the Republic of Kazakhstan "On approval of the state obligatory standards on levels of education in the field of health care" from July 4, 2022 № KR DSM-63.
- Order of the Minister of Education and Science of the Republic of Kazakhstan "On approval of the Rules of organization of educational process on credit technology of education in organizations of higher and (or) postgraduate education" from April 20, 2011 № 152.
- Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 № 319-III (as amended on 04.07.2022).
- Order of the Minister of Education and Science of the Republic of Kazakhstan "On Approval of the Model Rules of Activity of Organizations of Higher and Postgraduate Education" dated October 30, 2018 № 595 (with amendments and additions as of 29.12.2021).
- "Regulations on the order and procedures for the development of educational programs" JSC "YUKMA" dated 29.04.2024.



- Internal regulatory documents of JSC UKMA

5. **Area of professional activity:** Health care organizers; heads of state and non-state medical and non-medical institutions.

Research activities in higher education institutions.

6. **Objects of professional activity:** Health care management organizations, health care and social security organizations.

Types of professional activities:

- organizational and management;
- research activities.

General information

№	Characterization of the EP	Data
1	Registration number	7M10100051
2	Code and classification of the field of education	7M10 Health care
3	Code and classification of training direction	7M101 Health Care
4	Group of educational programs	M140 Public health
5	Code, name of educational program	7M10140 Public Health
6	Type of EP	Current EP
7	ISCED level	7
8	NSC level	7
9	ORC level	7
10	Distinctive features of the EP	No
	Partner HEI (EP)	-
	Partner institution of higher education (PIU)	-



11	List of competencies	<p>Key competencies of the program graduate:</p> <p>QC1 Public Health Methods.</p> <p>QC2 Population health and its physical, radiological, chemical and bio-environmental determinants.</p> <p>CC3 Health promotion: health education, health promotion and disease prevention.</p> <p>KK4 Ethics.</p>
12	Learning Outcomes	<p>RO1 Plans professional activities in public health based on current developments in science and practice.</p> <p>RO2 Able to solve public health problems within the scope of his/her qualification based on scientific approaches, resolves issues related to “One Health” in the field of public health.</p> <p>RO3 Utilizes scientific evidence to advance public health and implement new approaches using modern information technology, including artificial intelligence.</p> <p>PO4 Able to acquire new knowledge and skills of applied nature in research, professional and pedagogical activities in the field of health care organization.</p> <p>RO5 Engages in professional development in public health and health care, demonstrates self-reflection skills, and experience for teaching at the graduate level.</p> <p>RO6 Demonstrates knowledge and understanding of the interdisciplinary nature of public health research.</p> <p>RO7 Communicates information, ideas, findings, conclusions, problems and solutions clearly and unambiguously to both public health professionals and non-specialists.</p>
13	Form of training	Full-time

14	Language of instruction	Kazakh, Russian
15	Loan volume	120
16	Degree awarded	Master of Medical Sciences in the educational program 7M10140 "Public Health"
17	Term of study	2 years
18	Availability of an annex to the license for the direction of training	KZ22BFA00167288
19	Availability of OP accreditation	Yes
	Name of accreditation body	NU "Independent Agency for Accreditation and Rating" IAAR
	№ accreditation certificates, accreditation validity period	№AB 4128, 09.06.2020. - 08.06.2025r.
20	Information on disciplines	Appendix 1.2.



Annex 1

Matrix of correlation between the learning outcomes of the educational program as a whole and the competencies formed

	RO1	RO2	RO3	RO4	RO5	RO6	RO7
KK1							
KK2							
KK3							
KK4							

Appendix 1.2.

Competencies/learning outcomes achievability matrix

№	Name of discipline	Brief description of the discipline	Cycle	Component	Number of credits	Formed ROs (codes)
			(DB, PD)	(UC, OC)		
Cycle of basic disciplines					35	
Compulsory/University component					20	
1	History and philosophy of science	Philosophy and methodology of science as a branch of philosophical knowledge. The structure of scientific knowledge. Scientific rationality. Features of the modern stage of development of science. Science as a social institution. Natural sciences in the structure of modern scientific knowledge. History of formation of sciences about society, culture, history and man. Actual philosophical problems of specific sciences.	DB	UC	4	RO4 RO6
2	Foreign language (professional)	Extension and developing skills for practical proficiency in the language of a specialty using digital tools, for the active use of a foreign language in both everyday and professional communication: vocabulary, grammar, oral language skills, writing skills, listening, translation.	DB	UC	5	RO3 RO5 RO6
3	Pedagogics of the	Formation of pedagogical competencies: teaching	DB	UC	5	RO5



	higher school	modern methods and technologies of teaching using digital technologies and innovations in higher and postgraduate education organizations, formation of professional ethics, skills to analyze and evaluate educational programs and teaching methods, conducting scientific research and writing scientific papers. Organization of the educational process based on a credit learning system. Education quality management system.				RO6 RO7
4	Psychology of management	The essence of management processes. The object of management psychology. Psychology of the activity of the head of the organization and the psychology of his personality. Functional and structural analysis of managerial activity. Psychological problems arising between the manager and employees of the organization. A clear idea of the distribution by levels of responsibility of the manager.	DB	UC	3	RO2 RO7
5	Pedagogical practice	Master's students are involved in the delivery of undergraduate classes to develop practical skills in teaching and learning methodology.	DB	UC	3	RO4 RO5
Option Component					15	
6	Information technology in public health	Introduction to e-government. Conditions for the formation of e-government in Kazakhstan. The concept of creating a unified health information system. Automation of medical institutions. Electronic database of all patients, electronic queues. Automation of	DB	OC	5	RO1 RO3 RO7

		preparation of prescriptions, appointments, sick lists. Unified information networks are being created. KIIS. Medical systems of the organization of office work of doctors and processing of medical statistics. Hospital information systems. Digital healthcare. Evaluation of digital healthcare and information management systems in healthcare. Healthcare information management system. Artificial intelligence in healthcare.				
7	Management of managerial decision making in health care.	Modern trends in the development of management in health care. Modern trends in the development of management in health care caused by scientific and technological progress, social changes and economic conditions. Quality management and quality management in healthcare.	DB	OC	5	RO2 RO4 RO7
8	Public health and public health care	Basic criteria for assessing the health status of the population and the activities of the health care organization. Medical demography. The concept, purpose, objectives and principles of intersectoral cooperation in health care. Organization of outpatient and polyclinic care. Continuity in the work of polyclinic, hospital and emergency ambulance.	DB	OC	5	RO5 RO7
9	Management in the context of compulsory medical insurance in	Payment of contributions to the fund by the state. Package of medical services and options for solving the issue of socially significant diseases in the framework of	DB	OC	5	RO4 RO7

	health care.	OSMS. Qualitative changes in the provision of medical care in the system of OSMS in the RK. Remuneration of labor of medical workers in the OSMS. Motivation of medical workers. Planning of activity of medical organizations under OSMS. International experience of OSMS.				
10	Organizational behavior in health care.	A job model of behavior. Personal business behavior. Group behavior of employees. Controlling behavior health care organizations. Controlling behavior of the manager. Conflict management positions in health care. Personnel management - planning, selection, placement, evaluation of staff motivation.	DB	OC	5	RO7
11	Economics in health care	Economic analysis as a way of looking at the costs and outcomes of medical activities. Economic analysis as an analytical method for making decisions on resource allocation. Creating conditions for the formation of a competitive environment in medicine as an effective tool for qualitative changes in production relations in the field of health care. Cost management for medical services. Market in health care.	DB	OC	5	RO2 RO6 RO7



12	Features of financing social activities in conditions Mandatory social medical insurances	Types of insurance. Concept, objectives. New tariff policy and pricing in the conditions of OSMS. Assessing the financial sustainability of medical organization (PHC, hospital). Analysis activities of the medical organization. Evaluation quality of medical services in the conditions of OSMS.	DB	OC	5	RO4 RO7
13	Financial management in healthcare	Objectives of financial management in healthcare. Basic theories of financial management. in healthcare. Basic financial documents in health care. Method of calculating the cost of hospital services and polyclinic services, the use of the service tarifier frequency analysis of clinical-cost groups. Ensuring financial security of the medical organization. Analysis of results and financial models in healthcare.	DB	OC	5	RO3 RO6 RO7
14	Statistical analysis in public health	Statistics as a science, basic concepts and sections. Objects and types of research in health care. Planning and organization of statistical research. Statistical methods of analyzing demographic parameters. Basic indicators of population statics. The main indicators of population dynamics. Indicators of reproduction. Integral medico-demographic indicators. The main sources of statistical information. Variables of different types.	DB	OC	5	RO3 RO4
15	Medical legislation in health care	The concept and subject of medical law in health care. Sources of medical law. Rights and obligations of	DB	OC	5	RO1 RO2



		citizens in obtaining medical care. Rights of medical workers in the sphere of labor legal relations. Grounds and procedure for bringing medical workers and medical organizations to civil liability. Administrative responsibility of medical workers, medical organizations and executive authorities in the field of health care.				
16	Quality management in healthcare	Knowledge of methods for assessing the quality of medical services, patient safety issues and psychosocial factors; ability to collect, analyze and interpret data on the quality of medical services, manage changes and processes; ability to identify and assess quality-related problems and risks, make informed decisions based on data analysis and quality assessment results, and work in interdisciplinary teams in order to implement quality improvement measures; skills in planning and implementing quality improvement projects at the institution level and the ability to formulate recommendations for improving the quality of medical services.	DB	OC	5	RO2 RO4 RO7
17	Operational management in health care	Monitoring of the health status of the population. Task-oriented management. Quality management system in health care. The right of operational management in health care. Economic management and operational management. Operative state management in public health care. Operational financial management in health care. Purpose, tasks, content, methods, functions, bases	DB	OC	5	RO3 RO7



		and features of operational management.				
18	Personnel management	Technology of management of personnel development in health care organizations. Evaluation of the effectiveness of the system of personnel management in health care organizations. Marketing of personnel in health care. Business assessment of personnel. Vocational guidance, socialization and labor adaptation of personnel in health care. Management of social development of personnel in health care.	DB	OC	5	RO2 RO5
	Cycle of specialized disciplines				49	
	University component				49	
19	Biostatistics (advanced course)	Formation of knowledge and skills on modern methods of processing and analyzing medical data using statistical programs, digital technologies and artificial intelligence; development of interpretation of statistical models for evaluating the effectiveness of therapeutic measures, diagnostic tests and risks of developing diseases; assessment and improvement of the quality of medical care, preventive programs and health policy.	AP	UC	5	RO2 RO6 RO7
20	Clinical epidemiology	Formation of knowledge and skills on the basics and methods of clinical epidemiology; collection, analysis and interpretation of medical research and data using digital technologies; skills to apply epidemiological methods in professional practice to improve the quality of medical care; critical thinking and the ability to make informed decisions based on scientific data; develop	AP	UC	5	RO3 RO4 RO6

		skills to assess the effectiveness and safety of medical interventions; the use of evidence-based medicine to make the right decisions and evaluate the effectiveness of preventive and curative interventions with the development of a strategic health plan at the population level.				
21	Fundamentals of teaching methodology in higher and postgraduate education institutions	Formation of knowledge on theoretical foundations and modern approaches to teaching methods. Professional competencies in the field of organizing the educational process, the use of innovative technologies and the adaptation of teaching methods to modern requirements; the use of information technology and artificial intelligence to improve teaching effectiveness; the implementation of scientific and methodological work and skills in interacting with stakeholders in higher and postgraduate education	AP	UC	3	RO4 RO5 RO7
22	Introduction to public Health science	Public health as the science of organizational, economic and legal problems of medicine and public health. Introduction to the science of public health. Indicators of public health. Factors determining public health. Medical statistics. Collection of statistical data of population health, their analysis and making management decisions based on the analysis.	AP	UC	5	RO2 RO6
23	Health policy, economics and management	National health systems and the challenges of reform. WHO policy and programs in the field of health protection and promotion. Subject and tasks of	AP	UC	8	RO2 RO6 RO7



		economics and management in health care. Planning and analysis of health care financing and economics. Private and public sector of health care. Improving the quality of medical services through the introduction of quality management system in health care and market relations.				
24	Health Promotion	Current state of health of the population. Health needs of the population. Specifics of the market of medical services and marketing activities in the field of health care. Study of the population's need for medical care and formation of the population's need for health as the main directions of marketing activities in health promotion. Health education, advertising, PR - actions. Marketing complex and its development.	AP	UC	8	RO3 RO4
25	Global aspects of unified health	The basic principles of the concepts of "unified health" and integrative and systematic approaches in medicine and healthcare, a holistic approach to human health and the relationship of physical, psychological and social aspects of Health; skills of interdisciplinary analysis of the state of health, identification of the cause of diseases and decision-making in this area; formation of knowledge in the skills of interdisciplinary interaction and work in teams of specialists; skills in using digital and artificial intelligence in modeling and systems analysis in assessing threats to human health and ecosystems.	AP	UC	7	RO2 RO3 RO7

26	Research practice	Familiarization with the latest theoretical, methodological and technological achievements of domestic and foreign science, modern methods of scientific research, processing and interpretation of experimental data and their application.	AP	UC	8	RO6
		Research work			24	
27	Research work of a master's student, including internship and master's thesis fulfillment	Research planning in public health. A review of the literature. Research in public health. Collecting and analyzing data. Research methods in public health research. Evaluating research findings.			24	RO1 RO2 RO3 RO4 RO5 RO6 RO7
		Final certification			12	
28	Formalization and defense of master's thesis	Assessment of learning outcomes and key competencies achieved upon completion of the study of the Master's degree program.			12	RO1 RO2 RO3 RO4 RO5 RO6 RO7
		TOTAL			120	