"APPROVED"
Rector of JSC "SKMA"
Zh. Seitzhanova
"08" 08 2025y.

EDUCATIONAL PROGRAM

Educational program code:	8D10141
Name of the educational program:	Medicine
Level of the educational program:	Doctorate

Shymkent, 2025 y.

The educational program 8D10141 « Medicine» was developed by the members of the Academic Committee of educational programs at the master's and doctoral levels

Chairman of the AC OP for Masters and Doctoral levels — K.K.Orynbassarova

Protocol № 8 25 03 2025y.

Agreed with the employer:

State Public Utility on the Right of Economic Management «City Hospital №2» of the Health Care Institution of Shymkent — B.D. Pozilov

State Public Institution «City Infectious Diseases Hospital» of the Health Care Institution of Shymkent — B.A. Ezezhopov

State Public Utility on the Right of Economic Management «Mental Health Center» of the Shymkent City Health Care Institution — B.S. Medetov

State Public Institution on the Right of Economic Management "Regional Children's Hospital" of the Health Care Institution of the Turkestan Region — A.M. Dossanova

Approved by the Methodological Council

Vice-rector for academic work — M.U. Anartaeva

Protocol № 9 of 02 05 2025y.

Approved by the Academic Council

Protocol № 13 of 02 05 2025y.

Passport of the educational program

1. **Mission of the educational program:** Development of the national health care system through the training of competitive scientific and pedagogical personnel capable of generating ideas, demonstrating leadership, developing strategies and solving complex problems in the field of medical education, science and practice.
2. **The purpose of the educational program:** To train personnel for the scientific, pedagogical and/or professional field of activity, with the award of the degree of Doctor of Philosophy (PhD), who are able to make informed decisions through independent scientific research, the implementation of which will make a significant contribution to the development of medicine.
3. **Rationale for the educational program:** Need in the labor market: the educational program is focused on healthcare professionals who are able to conduct scientific research and implement organizational and management technologies to solve complex problems of protecting public health and developing an effective health care system in Kazakhstan.
4. **Professional standard on the basis of which the educational program has been developed:**

Regulatory documents for the development of an 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 No. 2.
- Order of the Minister of Health of the Republic of Kazakhstan «On Approval of State Compulsory Standards for the Levels of Education in the Field of Healthcare» dated July 4, 2022 No. KR DSM-63.
- Order of the Minister of Education and Science of the Republic of Kazakhstan «On Approval of the Rules for the Organization of the Educational Process on Credit Technology of Training in Higher and (or) Postgraduate Education Organizations» dated April 20, 2011 No. 152.
- Law of the Republic of Kazakhstan «On Education» dated July 27, 2007 No. 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 for the Activities of Higher and Postgraduate Education Organizations» dated October 30, 2018 No. 595 (as amended on 29.12.2021)
- «Regulations on the Procedure and Procedures for the Development of Educational Programs» of JSC «SKMA» dated 29.04.2024.

- Internal regulatory documents of JSC «SKMA»

5. The field of professional activity: Health care organizers, heads of state and non-state medical and non-medical institutions. Research activities in universities.

6. The object of professional activity: Organizations of health care management, organizations of health care and social security.

Types of professional activity:

- organizational and managerial;
- scientific and research activities.
- education (pedagogical)

General information

№	Characteristics of the EP	Data
1	Registration Number	8D10100017
2	Code and classification of the field of education	8D10 Health care
3	Code and classification of the field of study	8D101 Health care
4	Group of Educational Programs	D141 Medicine
5	Code, name of the educational program	8D10141 Medicine
6	Type of EP	Current EP
7	ISCED level	8
8	NQF level	8
9	IQF Level	8
10	Distinctive features of the EP	No
	Partner University (JEP)	-

	Partner University (DDEP)	-
11	List of competencies	Key competencies of the graduate of the program: **KC1** Modern approaches and research methods in healthcare. **KC2** Population health and its physical, radiological, chemical and biological-environmental determinants. **KC3** Health promotion: health education, health protection and disease prevention. **KC4** Ethics.
12	Learning Outcomes	**LO1** Uses a special knowledge to critically analyze, evaluate, and synthesize new, complex ideas that are at the very forefront position in public health service. **LO2** Able to conduct independent research and can work for a scientific result, has a sustained interest in developing of new ideas and projects which will lead to appearance of the new technologies in the health care area. **LO3** Generates ideas, predicts the results of innovation, cooperates in promotion in academic and professional context of technological, social or knowledge based cultural development of society. **LO4** Demonstrates introspection skills, a commitment to lifelong learning, and experience for teaching at the higher and postgraduate levels, taking into account the principles of student-centered learning and assessment, developing teaching materials taking into account the integration of education, science, and innovation using digital technologies and artificial intelligence, communicating with students and colleagues while respecting the principles of inclusion. **LO5** Participates in nuncupative or in writing professional discussions, publishes research results in international academic publications.

		LO 6 Demonstrates a systematic understanding of the field of healthcare and education in the field of his qualifications, possesses the skills and research methods used in this field. **LO7** Demonstrates leadership qualities, innovativeness and independency in work and study activities in new contexts that require the solution of problems linked by many interrelated factors. **LO8** Capable to communicate on topics in his field of competence with equal status person, with the broad scientific community and society in general.
13	Form of study	In-person
14	Language of instruction	Kazakh, Russian
15	Amount of loans	180
16	Degree Awarded	Doctor of Philosophy (PhD) in the educational program 8D10141 «Medicine»
17	Duration of training	3 years
18	Availability of an appendix to the license for the direction of personnel training	KZ36LAA00011387 (020)
19	Availability of EP accreditation	Yes
	Availability of EP accreditation	Independent Agency for Accreditation and Rating (IAAR)
	Accreditation Certificate No., Accreditation Validity Period	№AB 3518, 27.05.20221y. – 26.05.2026y.
20	Information about disciplines	Annex 1.2

Annex 1

Matrix of correlation of learning outcomes in the educational program as a whole with the competencies being formed

	LO1	LO2	LO3	LO4	LO5	LO6	LO	LO8
KC1								
KC2								
KC3								
KC4								

Annex 1.2

Competency attainability/learning outcomes matrix

№	Name of discipline	A brief description of the discipline	Cycle (BD, PD)	Component (UC, OC)	Number of credits	Generated LO (codes)
	The cycle of basic disciplines				**23**	
1	Scientific research methods	Formation of knowledge and skills to carry out scientific research at a high level; principles of the scientific method: formulation of hypotheses, data collection, analysis and interpretation of results, ethical issues; the ability to develop research designs and apply statistical methods, digital technologies and artificial intelligence to analyze data and interpret the results. To develop the skills of critical analysis of literature, assessment of the quality and reliability of sources, and to increase scientific effectiveness and publication activity.	PD	UC	4	LO4 LO5 LO6 LO7
2	Academic writing	Formation of knowledge and skills in text structuring, organization of scientific and educational works; formulate and substantiate their own ideas, build logical chains of argumentation and critically analyze sources; knowledge of	PD	UC	3	LO5 LO8

		various citation styles; learning to analyze and critically comprehend existing research and publications in their field; improving writing skills at the academic level; skills of introspection and evaluation of their own texts effective communication skills in compliance with the principles of inclusion, including the ability to present the results of scientific research. The use of artificial intelligence and digital technologies.				
3	Teaching practice	Develops and organizes classes with undergraduates (students) (at least 10 classes). Participates in and analyzes the training sessions conducted by the teachers of the department. Participates and analyzes scientific and methodological seminars and conferences. Conducts practical activities with students in a scientific circle. Compiles articles of scientific and methodological nature. Prepares a report on scientific and pedagogical practice.	BD	UC	10	LO4
Optional component						
4	Educational technologies in higher and postgraduate education institutions	Formation of theoretical foundations on the basic concepts and theories of educational technologyin education; skills of development and implementation of modern educational technologies in the educational process; analysis and evaluation of the effectiveness of educational technologies; application of innovative technologies in the transformation of educational practices;	BD	OC	3	LO1 LO3 LO4 LO7 LO8

		designing curricula and courses using digital tools and artificial intelligence, taking into account students' needs and educational goals; critical analysis of existing educational practices and technologies, the ability to propose improvements and work in a team, interact with colleagues and share experiences in the field of educational technologies.				
5	Epidemiological and clinical-genetic analysis of Parkinson`s disease, Huntington's chorea, ataxia and dystonia	The relevance of the epidemiological study of Parkinson's disease, Huntington's chorea, ataxia and dystonia. Epidemiological features and processing of data analysis of epidemiological studies in Parkinson`s disease, Huntington`s chorea, ataxia and dystonia. Optimization of the organization of the system of therapeutic and preventive care for patients with Parkinson's disease and other motor disorders using digital tools and artificial intelligence. DNA analysis of the role of trinucleotide repeats and LRRK2 G2019S in the development of movement disorders.	BD	OC	3	LO1 LO3 LO4 LO6 LO7
6	Problems of childhood infections	Particularity of the organization of assistance to the child population in infectious diseases. The use of specialized knowledge and digital technologies for critical analysis, evaluation and synthesis of algorithms for differential diagnosis, classification, treatment tactics, rehabilitation and prevention of infectious diseases in children. Skills and	BD	OC	3	LO1 LO3 LO7

		research methods used in the quarantine activities in children`s institutions.				
		Cycle of profile disciplines				
7	Biostatistics (advanced course)	Elements of measurement theory. Methods of comparison and analysis of statistical aggregates. Nonparametric test. Method of standardization, its meaning and application. Statistical packages SPSS, SAS, Stata using computer statistical programs. Statistics on the health of the population. Statistics of the health system. Development and application of statistical methods for planning and analysis of biomedical research. Modeling opportunities in health care.	BD	UC	4	LO1 LO6
8	Ethics in scientific activity	Ethics of science, or scientific ethics, covers the moral aspect of the activity of a scientist and science as a public institution. Its content is primarily determined by the specifics and social purpose of the scientific activity itself, which consists in producing knowledge.	PD	UC	4	LO3 LO4
9	Research practice	Forms professional competencies necessary for independent scientific and practical activities. The dissertation research uses modern methods of scientific research, data processing and interpretation, consolidates practical skills by studying the latest theoretical, methodological and technological achievements of domestic and foreign medical sciences.	PD	UC	10	LO5
		Optional component				

10	Surgery of biliopancreatoduodenal zone	Medical and social significance of the problem of diseases of the biliopancreatoduodenal zone. Causal relationships of liver, pancreas and extrahepatic bile ducts. Highly qualified approach to the prevention and treatment of biliopancreatoduodenal diseases zone based on the assessment of evidence-based data.	PD	OC	4	LO1 LO4 LO6
11	Zonotic infections	Critical analysis, assessment and synthesis of changes from various systems and organs, severity criteria. Diagnostic. Differential diagnosis. Treatment. Indications for hospitalization. Rehabilitation. Prevention. Curative measure in the foci of infection. Publication of research results in the field of zoonotic infections.	PD	OC	4	LO1 LO5
12	Atrophy of the brain and spinal cord in multiple sclerosis	Dynamic and comparative epidemiological studies of brain neurodegenerative processes in multiple sclerosis. Methods for diagnosing atrophy of the brain and spinal cord: postprocessing image processing, calculating the volume of the anatomical structures of the brain (morphomitria). Correlation of the volume of the cortex with the assessment of ventricular volumes and neurological disorders. Optimization of the use of atrophy parameters as a tool for assessing the effectiveness of therapy.	PD	OC	4	LO1 LO5 LO6
13	Post-stroke neuropsychiatric disorders	Epidemiology of post-stroke neuropsychiatric disorders. Clinical neuroimaging correlations in post-stroke cognitive impairment. The mechanism of development of post-stroke neuropsychiatric disorders. Neuropsychological profile in	PD	OC	4	LO6 LO7 LO8

		patients with cognitive defect, in patients after stroke. General principles of neuropsychological rehabilitation in patients with post-stroke neuropsychiatric disorders.				
		Optional component				
14	Project management	The discipline «project management» is a methodology for achieving success using modern scientific methods to achieve optimal results in terms of cost, time and quality, as well as meeting the interests of all project participants. In other words, the art of leadership in coordinating the efforts of people and using resources.	PD	OC	5	LO1 LO2
15	Emergency conditions in the practice of infectious diseases	Conduct independent research and work on the scientific result in various types of shocks. Causative agents of infectious diseases, which causing the development of shock. Infectious diseases in which shock most often develops. Pathogenetic stages in emergency conditions. Clinical stages of emergency situations. Clinical symptoms of various stages of shock. Publication of research results on the treatment of shock states.	PD	OC	5	LO2 LO5 LO6
16	Ischemic stroke at a young age	Epidemiological features of stroke at a young age in the southern region of Kazakhstan. Verification of the diagnosis using CT and MRI in young people. Stratification of causes of stroke in accordance with the recommendations of TOAST.	PD	OC	5	LO1 LO6 LO8

17	Clinical and electrophysiological aspects of facial pain	Analysis of the quality of life of patients with facial pain. Clinical and psychological characteristics and quality of life of patients with FP. Neurophysiological characteristics of FP with using the registration of electroencephalogram (EEG) and evoked potentials (EP) of the brain, trigeminal and skin sympathetic potentials of the brain. Comparative physiologic patterns of FP and trigeminal neuralgia.	PD	OC	5	LO1 LO5 LO6 LO8
18	Neuropsychological Disorders in the Early Stage of Parkinson's Disease	Comparative evaluation of the characteristics of affective and cognitive impairment in the early stage of Parkinson`s disease. The nature and severity of emotional and affective disorders in the early stages of PD. Neuropsychological testing to identify the level of personal and reactive anxiety of depressive symptoms, intellectual and mental disorders, analysis of the level of motivation and assessment of quality of life.	PD	OC	5	LO1 LO2
Research work					**123**	
19	Research work of a doctoral student, including an internship and a doctoral dissertation	Conducting independent research and working on scientific results. Forecasting the results of innovation activities. Analysis, evaluation and synthesis of new complex ideas. Publication of research results in international academic publications.	PD	OC	123	LO1 LO2 LO3 LO4 LO5 LO6 LO7 LO8
Final examination					**12**	

20	Writing and defending a doctoral dissertation	Assessment of learning outcomes and key competencies achieved upon completion of the study of the doctoral program.			12	LO1 LO2 LO3 LO4 LO5 LO6 LO7 LO8
TOTAL					**180**	