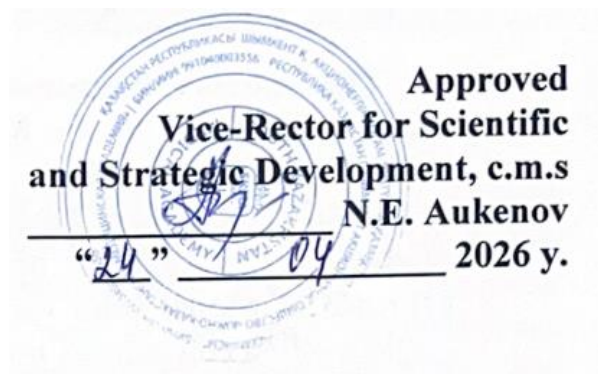


ОҢТҮСТІК-ҚАЗАҚСТАН
MEDISINA
AKADEMIASY
«Оңтүстік Қазақстан медицина академиясы» АҚ




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



PROGRAM

**Of the entrance examination for the specialized Master's degree program in
the educational program 7M10105 "Medical and preventive care"**

Shymkent, 2026

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Scientific committee on «Medical and preventive care»		59-27a-2026
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The entrance examination program has been developed based about the Minister of Health of the Republic of Kazakhstan dated July 4, 2022, no. KR DSM-63 "On approval of State compulsory education standards by levels of education in the field of healthcare" and the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018, No. 600 "On approval of Model rules for admission to education in educational organizations implementing educational programs of higher and postgraduate education.

The program of the entrance exam was discussed at a meeting of the Scientific Committee on «Medical and preventive care»

«06» 02 2026., protocol № 4

Chairman of the Scientific committee
on «Medical and preventive care»



P.D. Uteпов


Secretary of the Scientific committee
on «Medical and preventive care»



D.S. Aliyev

Approved by the Scientific Council of JSC «SKMA»

Protocol № 4 from «24» 04 2026.

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казакхстанская медицинская академия»
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Introduction

The goal of the entrance examination for the specialized Master's program under the educational track 7M10105 "Medical and preventive care" is to prepare competitive, competent scientific and pedagogical personnel possessing professional and scientific competencies, as well as the skills to implement practical and scientific activities to meet the needs of the science, education, and healthcare systems.

In the context of improving the healthcare system based on modern scientific achievements, it has become necessary to master knowledge and skills in managing the activities of medical organizations; clinical mentoring is being introduced and developed. A highly qualified physician is tasked with not only mastering professional qualities but also with conducting activity analysis, monitoring, control, and transferring knowledge to young specialists and students; the integration of practice, science, and education is becoming increasingly relevant.

1. Purpose of the Entrance Examination: An objective assessment of the level of theoretical preparation and practical readiness of the applicant to master the Master's program, as well as the identification of their potential for conducting independent scientific research and professional activity in the field of preventive medicine.

2. Objectives of the Entrance Examination:


Assessment of Fundamental Knowledge: Checking the depth of understanding of the basics of hygiene, epidemiology, and public health.

Identification of Analytical Abilities: Determining the ability to correlate environmental factors with the health status of the population and interpret statistical data.

Assessment of Readiness for Scientific Work: Checking the mastery of scientific research methodology and the ability to critically evaluate modern scientific information.

Determination of Professional Motivation: Assessing the applicant's understanding of current issues and development prospects of the sanitary and epidemiological welfare system of the Republic of Kazakhstan.

Verification of Cognitive Skills: Assessing the capacity for logical thinking, argumentation of one's own position, and independent search for solutions in non-standard situations.

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3. Entrance Examination Questions: Educational Program 7M10105 "Medical and preventive care"

1. Atmospheric air as an environmental factor. Physical and chemical indicators of atmospheric air, methods of their determination, and their impact on public health. Main sources of atmospheric air pollution.

2. Hygienic requirements for drinking water quality. Organoleptic, chemical, and microbiological indicators of water. Methods of laboratory control of water quality.

3. Hygienic assessment of soil. The role of soil in the spread of infectious and parasitic diseases. Methods of sanitary soil investigation.

4. Hygiene of residential premises. Microclimate of residential buildings, its main indicators (temperature, humidity, air velocity) and their impact on human health.

5. Sanitary and hygienic examination of food products. Main methods for assessing the quality and safety of food products.

6. Food poisoning. Classification, causes, epidemiology, and preventive measures.

7. Methods of laboratory control of food quality. Microbiological, chemical, and toxicological research methods.

8. Impact of harmful occupational factors (noise, vibration, dust, chemical substances) on the human body and methods of their hygienic assessment.

9. Hygienic classification of working conditions. Methods of assessment and prevention of occupational diseases.

10. Occupational hygiene in the digital environment and new forms of employment. Prevention of professional burnout and technogenic risks.

11. The epidemic process. Its structure, main links, and factors influencing the spread of infectious diseases.

12. Epidemiological surveillance. Organization, stages, and methods for analyzing the epidemiological situation.


13. Organization of anti-epidemic measures in the foci of infectious diseases.

14. Prevention of healthcare-associated infections (HAIs). Sanitary and epidemiological requirements for medical organizations.

15. System for ensuring sanitary and epidemiological well-being of the population in the Republic of Kazakhstan. Structure, functions, and tasks.

16. Legislative and regulatory foundations of sanitary and epidemiological control in the Republic of Kazakhstan.

17. Influence of environmental factors on the development of noncommunicable diseases. Methods for assessing health risks for the population.

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18. Immunoprophylaxis: legal aspects, the cold chain, and evaluation of vaccination effectiveness.

19. Social and hygienic monitoring. Goals, objectives, and methods for analyzing the health status of the population.

20. Research methods in preventive medicine. Types of studies (descriptive, analytical, experimental).

21. Statistical methods in medical and hygienic research. Key indicators, analysis, and interpretation of data.

22. Modern scientific directions and innovative technologies in preventive medicine (environmental medicine, risk-oriented approach, laboratory monitoring).

23. Ethics of scientific research: informed consent, the work of local ethics committees, and principles of academic integrity.

24. Evidence-based medicine in preventive healthcare. The concept of hierarchy of evidence. Methodology for developing clinical protocols and sanitary regulations based on systematic reviews and meta-analyses.

25. Global biosecurity threats and the “One Health” concept. Intersectoral cooperation in combating antimicrobial resistance and emerging zoonotic infections. The role of the International Health Regulations (IHR).

4. Recommended Literature List

Core Literature:

1. Code of the Republic of Kazakhstan "On People's Health and the Healthcare System" (with amendments and additions for 2025–2026).

2. Bolshakov A. M. General Hygiene: Textbook. — Moscow: GEOTAR-Media, 2014.

3. Hygiene: Textbook / Ed. P. I. Melnichenko. — Moscow: GEOTAR-Media, 2014.

4. Zhaksybaeva Zh. B. Air Hygiene: Training Manual. — Shymkent: SKMA, 2014.


5. Kirpichenkova E. V. Communal Hygiene. Guide to Practical Exercises. — Moscow: GEOTAR-Media, 2023.

6. General Hygiene, Social-Hygienic Monitoring. Guide to Practical Exercises / P. I. Melnichenko [et al.]. — Moscow: GEOTAR-Media, 2020.

7. Izmerov N. F. Occupational Hygiene: Textbook. — Moscow: GEOTAR-Media, 2016. Bukhtiyarov I. V. Guide to Occupational Hygiene. — Moscow: GEOTAR-Media, 2022.

8. International Health Regulations (IHR, 2005). — WHO. Briko N. I. Epidemiology. Selected Lectures. — Moscow: GEOTAR-Media, 2022.

9. Ermanova S. A. Epidemiology: Textbook. — Karaganda: AKNUR, 2016.

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10. General Epidemiology with Basics of Evidence-Based Medicine / Ed. V. I. Pokrovsky. — Moscow: GEOTAR-Media, 2015.

11. Duisenbaeva P. R. Modern Approaches to Studying Epidemiology, Clinical Presentation, Diagnosis, Treatment, and Prevention of Measles, Rubella, Chickenpox, and Scarlet Fever in Children. — Almaty: Evero, 2014.

12. Alshinbaeva G. U. Infectious Diseases with Basics of Epidemiology: Textbook. — Astana: Aknur, 2014.

13. Epidemiology. In two volumes. Vol. 1: Textbook / N. I. Briko. — Moscow, 2013.

14. Epidemiology. In two volumes. Vol. 2: Textbook / N. I. Briko. — Moscow, 2013.

15. Irsimbetova N. A. Epidemiology: Textbook. — Shymkent: Kitap LLP, 2013.

16. Infectious Diseases and Epidemiology: Textbook. — Moscow: GEOTAR-Media, 2013.

17. Erdesova G. S. Epidemiology: Textbook. — Almaty: Evero, 2019.

18. Decree of the Government of the Republic of Kazakhstan "On Approval of the National Vaccination Calendar."

19. Greenhalgh T. How to Read a Paper: The Basics of Evidence-Based Medicine. — Moscow: GEOTAR-Media, 2018.

20. Petrov S. V. Bioethics: Textbook. — Moscow: GEOTAR-Media, 2019.

21. Glantz S. Primer of Biostatistics. — Moscow: Praktika, 1998.

Online Resources:

- adilet.zan.kz — Information and Legal System of Normative Legal Acts of the Republic of Kazakhstan

- ncph.kz (National Center for Public Health of the Ministry of Health of the RK)

- Cochrane Library (cochranelibrary.com)

- Dari.kz — State Register of Medicines and Medical Devices