

Al-Farabi Kazakh National University Faculty of Medicine and
Healthcare Chair on Epidemiology, biostatistics, and evidence-
based-medicine

**PROGRAM OF THE FINAL EXAM
ON COURSE**

НАУҚАС ЖӘНЕ ҚОҒАМ/ПАЦИЕНТ И ОБЩЕСТВО/PATIENT AND SOCIETY

**MAJOR PROGRAMME
6B101 Public Health**

EDUCATION PROGRAMME

6B10113 DENTISTRY

5 credits

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TMC OF COURSE IS CONFIRMED

On the Academic Council of Medicine and Public Care Faculty
Protocol N _____ 2025.

Department
from « ____ » ____ . 2025, Protocol N _____

Recommended by the faculty methodical bureau
« ____ », 2025, Protocol N _____

Almaty, 2025

PROGRAM
OF THE FINAL EXAM ON COURSE “PATIENT AND SOCIETY”
5 credits

The purpose of the program is to evaluate the knowledge, skills, and abilities acquired by the 3rd year student in the course of studying the discipline.

The exam consists of two stages.

The first stage is comprehensive testing. The goal is to check the level of theoretical training of students, mastery of skills, readiness for professional activity, and development of professional thinking.

The second stage involves assessing practical skills for understanding disease epidemiology, applying epidemiological and statistical methods to achieve high-quality results in solving public health issues. The purpose of this stage is to demonstrate the application of knowledge, skills, and abilities in accordance with the qualification requirements.

The final grade includes:

Testing - 50% (100 holding, comprehension, and application tests).

Skills: PBL - case study: on epidemiology, biostatistics, and evidence-based medicine.

This is a combined exam N3. Thematic content covers all types of work: topics of lectures and seminars, as well as assignments for students' independent work. The exam consists of 2 stages in the MOODLE LMS.

Learning Outcomes:

1. Identify health problems at the population level;
2. Be able to integrate scientific evidence with a physician's clinical experience and patient values;
3. To be able to use conscientiously, accurately, and meaningfully reliable results of clinical trials for the choice of a particular patient's treatment;
3. Possess knowledge, skills, and abilities of the basics of evidence-based medicine, which allow to critical evaluation of medical information for rational use in further practice;
4. Apply exposure-oriented knowledge of the disease's epidemiology to assess various external environmental factors in the context of the formation of pathology in a particular patient
5. Apply different approaches to understand social, economic, and political forces that affect both the burden of disease and the ability of the health system to improve it.
6. Apply knowledge of outcome-based disease epidemiology to identify and improve the effectiveness of therapeutic and preventive health care programs.
7. Recognize and analyze ethical issues in practice that are based on the moral principles as a base of clinical care, research, and professionalism in general;
8. Critically assess evidence and use it appropriately in clinical decisions and public health management in the context of national and global health policy.
9. Demonstrate adherence to the highest standards of professional responsibility and integrity; comply with ethical principles in all professional interactions;
10. Demonstrate needs for continuous professional training and improvement of their knowledge and skills;
11. Demonstrate skills of conducting scientific research, a desire for new knowledge, and transfer it to others;
12. Apply knowledge and skills of population's health surveillance, including epidemiological surveillance over infectious diseases;
13. Apply modern statistical methods of analysis in medical and biomedical research and independently use computer statistical programs.

List of examination items for exam preparation

Module I. Epidemiology

Topic: Introduction and bases of Epidemiology.

Topic: Epidemiological methods and study design.
 Topic: Exposure-oriented Epidemiology.
 Topic: Outcome-oriented Epidemiology.
 Topic: Base of epidemiological surveillance. Prophylaxis of diseases.

Module II. Biostatistics

Topic: Introduction to Biostatistics. Data processing programs.
 Topic: Descriptive statistics. Statistics.
 Topic: Analytical statistics.
 Topic: Inferential statistics.
 Topic: Statistics in Evidence-Based Medicine.

Module III. Evidence-based Medicine

Topic: Principles and methods of Evidence-Based Medicine.
 Topic: Search and Critical Appraisal of Medical Scientific Articles.
 Topic: Clinical Epidemiology.
 Topic: Systematic review and meta-analysis. AGREE and assessment of clinical recommendations.
 Topic: Bioethics and clinical trials.

EXAM RULES

At the scheduled time, students are authorized in the Moodle LMS and gain access to the "Final exam in the discipline" task, which utilizes a case study within the platform.

Case study, individual assignment.

1. Study the topics of the instructor's case study.
2. Perform the task within 1 hour.
3. Load the completed work on the case study into the LMS Moodle, for this:
 - 4.1 students log into the Moodle LMS,
 - 4.2 Open the element "Final exam in the discipline",
 - 4.3 Select the item "Add answer to the task",
 - 4.4 upload their works in the file upload field,
 - 4.5 Click "Save".

The form of the final control (exam): WRITTEN - STUDY CASE

The form holding the final control (exam) *.	Use weary platform	For whom recommend ed	Availability proctoring, video recordings, check for plagiarism	Opportunity automatic generating tickets/questions	how carried out check works
1 STAGE: TESTING	LMS Moodle	Bachelor's of School of Medicine	Proctoring yes	Yes	Generation of results

2 STAGE: WRITTEN: – CASE STUDY	LMS Moodle	Bachelors of the School of Medicine	Proctoring no. Video recording at Individual work - not required. Mandatory check for plagiarism in the works of students. Provided automatic Check work for plagiarism with the use of the service: Anti- plagiarism. 1 PTS check for 1 job. Anti-plagiarism systems can provide an opportunity checks work with 1 attempt (configures in system teacher).	No	1. Teacher gets ready files/response s in LMS Moodle. 2. Teacher evaluates work, conducts check for availability plagiarism. 3. Teacher exhibits points in LMS Moodle. 5. Teacher transfers points in statements of IS Univer
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Stage 1 Evaluation Policy - Testing

Test questions are grouped to assess students in three areas: to determine cognitive competencies, system competencies and functional competencies (memorization, understanding and application).

Question direction	Types of questions	Competency level
Cognitive competencies-oriented questions	Definition of core functions, classification, and concepts in epidemiology, biostatistics, and evidence-based medicine.	Ability to substantiate the definition.
System competencies-oriented questions	Analysis of the study's results.	Ability to analyze the results obtained.
Functional competencies-oriented questions	Making solutions to health problems.	Ability to identify problems in health care and clinical medicine.

Maximum scores for the test are 50 points

Stage 2 Evaluation Policy: Case Study

Steps	Parts of the case study	Tasks for the case study	Scores
1	Epidemiology	Describe the epidemiological situation, measure the incidence and prevalence rates, and the proportion.	34
2	Biostatistics	Measuring the frequency of quantitative and qualitative data.	0-5
3	Evidence-based Medicine	Analysis of the situation by the PICO framework.	0-5
	Total scores	The maximum score is 50.	0-50

Maximum scores for the test are 50 points

Final assessment of the two stages of the exam:

Letters assessment	Numerical assessment	Scores (%)	Traditional assessment	Requirements
A	4,0	95-100	Excellent	Complete understanding of course topics. Using cognitive, systemic, and functional competencies. Critical thinking, analysis, and application of knowledge and skills.
A-	3,67	90-94		
B+	3,33	85-89	Good	Understanding of course topics with a few inaccuracies. Utilizing cognitive, systemic, and functional competencies, the Individual Demonstrates Standard critical thinking, analysis, and application of knowledge and skills.
B	3,0	80-84		
B-	2,67	75-79		
C+	2,33	70-74		
C	2,0	65-69	Satisfied	Incomplete understanding of course topics. The student does not use cognitive, systemic, and functional competencies to the full extent. Standard critical thinking, poor analysis, and incomplete application of knowledge and skills.
C-	1,67	60-64		
D+	1,33	55-59		
D-	1,0	50-54		
FX	0,5	25-49	Unsatisfied	Lack of understanding of course topics. The student does not use cognitive, systemic, and functional competencies. There is no critical thinking, poor analysis, and application of knowledge and skills.

References:

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