AL-FARABI KAZAKH NATIONAL UNIVERSITY

FACULTY OF MEDICINE AND HEALTHCARE

CHAIR OF EPIDEMIOLOGY, BIOSTATISTICS AND EVIDENCE-BASED
MEDICINE

PROGRAM FINAL EXAM BY DISCIPLINE
Medical Ecology

6 credits

Composer: senior lecturer F.A.Iskakova

Almaty, 2024

PROGRAM OF FINAL EXAM ON DISCIPLINE "MEDICAL ECOLOGY"

Study topics for the exam: The final exam is conducted in the form of an "essay". Thematic content covers all types of work: topics of lectures and seminars, as well as assignments for independent work of PhD doctoral students.

Learning outcomes:

1. Know the basic concepts and problems in ecology that have harmful effects on public health using concepts, terms, and exposure factors.
2. Evaluate the impact of environmental factors on the human body to determine basic epidemiological indicators.
3. Design an environmental study plan.
4. Present the results of an ecological study based on informative epidemiological indicators for comparative assessment of the health status of the population.
5. Analyze a statistical study based on quantitative methods and new information technologies.

List of topics to prepare for the exam

Module 1. Bases of Bioethics

Topic 1. Global problems of ecology
Topic 2. Subject of medical ecology as a science and field of practice.
Topic 3. Modern concepts and trends in medical ecology.
Topic 4. The quality of the human environment
Topic 5. Ecological environmental factors: human influence and adaptation.
Topic 6.Concepts of 'health risk' and environmental risk'.
Topic 7. Environmental monitoring: biological and socio-ecological types.
Topic 8. Assessment of the atmosphere and the impact of its polluting factors on public health.
Topic 9. Assessment of the hydrosphere and the impact of its pollutants on public health.
Topic 10.Evaluate the lithosphere and its polluting factors on public health.

Topic 11. Physical environmental factors and their evaluation.

Topic 12. Chemical environmental factors and their assessment.

Topic 13. Environmental problems of nutrition.

Topic 14. Environmental issues associated with the interior of buildings and their impact on human health.
Topic 15. Climate Change.

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EXAM RULES

1. At the time set by the teacher, doctoral students are authorized in the Moodle LMS and get access to the task "Final exam in the discipline".

2. Learn the topics of the instructor's essay.

3. Perform the task within 3 hours

4. Load the completed work on the case study into the LMS Moodle, for this:

4.1 PhD doctoral students are authorized in LMS Moodle,

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- ESSAY

Form of conducting final control (exam) *.	Used platform	For whom recommend	Availability of proctoring, video recording, verification for plagiarism	Possibility Automatic generating of tickets/questions	How is done verification of works
WRITTEN: – essay	LMS MOODLE	For bachalors	Proctoring - no. Video recording at individual work - not required. Mandatory check for plagiarism in the works of doctoral students. Provided automatic check work for availability plagiarism with using 2 services: Antiplagiarism (required) and Strike Plagiarism (if necessary). 1 PPP check for 1 time of exam paper. Using Antiplagiarism system. PPP can provide possibility of checking work for a PhD student - 1 attempt configures in system teacher).		1.Teacher discipline gets ready files / responses in LMS Moodle. 2. Evaluates the work, checks on. the presence of plagiarism. 3. Puts points in LMS MOODLE. 4. Transfer points to IS Univer statements.

Typology and approximate content of exam tasks:

Case- study of Ecological Accidents related to Air, Watter, round, Nutrition and Indoor Environment Pollution

Traditional grade	Scores	Characteristics
Perfect	90-100	The work was done independently and at a high scientific and methodological level. The text of the response shows that the doctoral student is capable of reflecting (evaluating and processing) mastered scientific methods activities and is also able to offer concepts, and models and use new ways and professional tools. The work presents the author's vision of the problem and the corresponding argumentation. The work is done neatly, the doctoral student owns professional terminology writing scientific papers.
Good	75-89	The work is generally well written, but the author does not disclose or fully illuminate individual topic questions. The work does not present the author's vision. There are some inaccuracies, but they do not relate to the main content of the work. The answer reveals knowledge and understanding of the material by no less than 75%.
Satisfactory	50-74	The task was generally completed, but the author did not demonstrate problem analysis skills, not disclose or not highlight individual topic questions. The work does not represent the author's vision of the problem. The author does not know enough about the methodology of scientific research. The answer contains inaccuracies related to the main content of the question.
Unsatisfactory	0-49	The task was not completed or completed in less than 50%. The task was not completed correctly.

References:

Literature: main and additional.

1.   Ecological Medicine, 2nd Edition: The Antidote to Big Pharma and Fast Food by Dr. Sarah Myhill and Craig Robinson.-2023.- 512 p.

2.   Environmental Medicine. J.Fowles, Ph.Weinstein, Ch-H Tseng. DOI:10.1007/978-94-007-4375- 5_24

3.   Ecological Medicine 2ND Edition: The antidote to Big Pharma and Fast Food . By Sarah Myhill and Craig Robinson, 2023. -526 p.

4.   Environmental and Health Impacts of Air Pollution:A Review Ioannis Manisalidis, Elisavet Stavropoulou,Agathangelos Stavropoulos and Eugenia Bezirtzoglou//Frontiers in Public Health, 2020.- 1-13 pp.   chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://com-mendeley- prod-publicsharing-pdfstore.s3.eu-west-1.amazonaws.com/1e1a-CC-BY- 2/10.3389/fpubh.2020.00014.pdf?X-Amz-Security-   Token=IQoJb3JpZ2luX2VjEO%2F%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCWV1LXdlc3QtMSJ

Research infrastructure
1. Auditorium Internet resources
1. Kaznu Library
2. MOOC / video lectures, etc. 3.www.who.org
4. www.cdc.gov
5. https://pubmed.ncbi.nlm.nih.gov/ Software (optionally)
1. IBM SPSS – 26 version
2. Excel program