MEDICAL UNIVERSITY OF KARAGANDA

THE PROGRAM OF THE ENTRANCE EXAM TO THE DOCTORAL PROGRAM

8D07201– PHARMACEUTICAL PRODUCTION TECHNOLOGY

Direction of training: scientific and pedagogical, profile

KARAGANDA 2023

The program of the entrance exam to the doctoral program of the educational program 8D07201 – "Pharmaceutical production technology" is compiled according to the technical specification for the formation of a database of examination materials for the entrance exams to the doctoral program for groups of educational programs.

Reviewed and approved at the meeting of the Council of the Institute of Life Sciences
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Chairman of the Council _____ Klyuev D.A.

Approved at the meeting of the Senate of the NAO "MUK" "___" May 2023 Protocol No.__

1. The purpose of the entrance exam is to identify the degree of readiness of the applicant to the PhD-doctoral program for the development of the educational program "Technology of pharmaceutical production" in accordance with the requirements of the state mandatory standard of education.

2. Tasks:
The entrance exam to the doctoral program consists of writing an essay, passing a test for readiness to study in the doctoral program and an exam on the profile of the educational program "Technology of pharmaceutical production»

3. Dates of the event:
August of the current year

4. Types and criteria of essay evaluation

To determine the level of analytical and creative abilities expressed in the ability to build their own argumentation based on theoretical knowledge, social and personal experience, the following types of essays are offered:

Types of essay	**Description**	**Essay volume**
Motivational	Argumentation of the applicant about the motivations for research activities (research statement)	250 – 300 words
Scientific and analytical research	justification of the relevance and methodology of the proposed research (research proposal)	
Problem-themed	Presentation of the author's position on current aspects of subject knowledge	

Essay evaluation criteria

Criteria	**Descriptors**	**Points**
The depth of disclosure of the topic is 6 points	the problem is solved at the theoretical level, with the correct use of scientific terms and concepts	3
	, one's own point of view (position, attitude) is presented when solving the problem	2
	information from various sources is used	1
Argumentation, evidence base 6 points	the presence of arguments from scientific literature and sources corresponding to the topic of the essay	3
	identification of causal relationships the	2
	presence of facts and evidence from historical, social and personal experience the	1
Compositional integrity and logic of presentation	presence of compositional integrity, the structural components of the essay are logically connected the	3
	presence of internal logic, the ability to go from the particular to the general, from the general to the particular	2
	availability of conclusions and generalizations	1
Speech culture 2 points	demonstration of a high level of academic writing (vocabulary, knowledge of scientific terminology, grammar, stylistics)	2

	Maximum number of points	**20**

5. Structure and content of the exam

5.1. The electronic exam ticket consists of 3 questions:

Blocks	The nature of the question is	**Number of points**
1st question	theoretical-determines the level and consistency of theoretical knowledge	10
2nd question	practical-reveals the degree of formation of functional competencies (the ability to apply methods, technologies and techniques in the subject area)	15
3rd question	reveals a systematic understanding of the studied subject area, specialized knowledge in the field of research methodology (system competencies)	25
TOTAL		50

5.2. The number of exam questions is 150 (50 for each block of questions).

5.3. Criteria for evaluating the answers to the questions of the electronic examination card:

Question	**Assessment criteria**	**Number of points**
1st question	demonstrates knowledge of the main processes of the subject area under study; the depth and completeness of the disclosure of the question	5
	logically and consistently expresses its own opinion on the problem under discussion,	3
	owns the conceptual and categorical apparatus, scientific terminology	2
		10
2nd question	Total applies methods, techniques, technologies to solve problems in the subject area,	7
	argues, compares, classifies phenomena, events, processes; makes conclusions and generalizations based on practical skills,	5
	analyzes information from various sources	3
	Total	**15**
3rd question	critically analyzes and evaluates theoretical and practical developments, scientific concepts and current trends in the development of science	10
	synthesizes methodological approaches in the interpretation of the main problems of subject knowledge	8
	identifies causal relationships in the analysis of processes, phenomena, events	7
	Total	**25**
	IN TOTAL	**50 points**

6. The procedure for conducting the test for readiness to study in the doctoral program

6.1. The test for readiness to study in doctoral studies is aimed at determining the level of critical (elementary mathematics, interpretation of various forms of information) and analytical (analysis of

academic and popular science texts, determination of hidden patterns, cause-and-effect relationships) thinking.
6.2. The number of test tasks – 30; of them for critical thinking-15; for analytical thinking-15.
6.3. The test results are reflected in the personal account of the applicant.

7. Interview evaluation criteria
7.1. Level of motivation, leadership qualities, degree of interest in learning according to the chosen educational program (from 1 to 30 points)
7.2. The level of professional competence / experience / knowledge in the field of research, willingness to conduct research (from 1 to 60 points)
7.3. The level of English for communication in the professional community, participation in professional discussions, publication of research results (from 1 to 10 points)

8. Rules of the entrance exam
8.1. The entrance exam to the doctoral program is conducted on the basis of the Regional Testing Center in a computer format.
8.2. The duration of the entrance exam is 4 hours, during which the applicant writes an essay, passes a test for readiness to study in doctoral studies, answers an electronic exam ticket consisting of 3 questions. The list of questions and the topic of the essay are formed in random order.
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List of sources:

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3. Praecepta enim organizationem productio et quale imperium medicinalium products ex herba rudis materias: uch. - modus. manual / N. V. Pyatigorskaya, I. A. Samylina, V. V. Beregovy, etc.; GBOU HPE Primum Moscow State Medical University, nomine post V. V. Beregov. I. M. Sechenova, Ministry de Salus Russia, Pharmaceutical Facultas., kaf. cursus velit. - SPb.: SpetsLit, 2013. — 367: male. — ISBN 978-5-299-00477-9
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