

## **APPROVED**

**at a meeting of the Academic Council of  
NJSC «KazNU named after al-Farabi»  
Protocol № 11 from 23.05.2025 y.**

### **The program of the entrance exam for applicants to the doctoral program for a group of educational programs D005 – «Training of physical education teachers»**

#### **I. General provisions**

1. The program was drawn up in accordance with the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 «On approval of Standard Rules for admission to educational organizations implementing educational programs of higher and postgraduate education» (hereinafter – the Standard Rules).

2. The doctoral entrance exam consists of an interview, writing an essay and an exam on the profile of a group of educational programs.

Blok	Points
1. Interview	30
2. Essay	20
3. Group Profile Exam educational program	50
Total/pass	100/75

3. The duration of the entrance exam is 3 hours and 10 minutes, during which the applicant writes an essay and answers the electronic exam ticket. The interview is conducted at the university before the entrance exam.

#### **II. The procedure for conducting the entrance exam**

1. Applicants for doctoral studies in the group of educational programs D005 – «Training of physical education teachers» write a problem / thematic essay reflecting various aspects of scientific knowledge in the subject area. The volume of the essay is at least 250 words.

The purpose of the essay is to determine the level of analytical and creative abilities expressed in the ability to build one's own argumentation based on theoretical knowledge, social and personal experience.

Types of essays:

- motivational essay revealing the motivation for research activities;
- scientific-analytical essay justifying the relevance and methodology of the planned research;

- problem/thematic essay reflecting various aspects of scientific knowledge in the subject area.

## **2. The electronic examination card consists of 3 questions.**

Topics for exam preparation according to the profile of the group of the educational program:

### **Discipline: *Scientific and pedagogical foundations of physical culture and sports at the university***

1. Physical culture and sport as a part of universal culture. Physical culture and sports at the university, the purpose and objectives of the discipline.
2. The main components of physical culture and sports. Forms of organization of physical education classes for students.
3. The human body as a single self-developing and self-regulating biological system.
4. Functional systems of the body and their improvement under the influence of directed physical training.
5. Healthy lifestyle. Physical education and sports in providing healthy lifestyle.
6. The main components of a healthy lifestyle. Risk factors for modern human health and their prevention.
7. General physical and sports training in the system of physical education. Regular and extracurricular forms of classes. Methodological principles of the organization of FC and C classes
8. Basic tools and methods for the development of physical qualities and training in motor actions. The orientation of physical activity according to the intensity and nature of the impact.
9. Pedagogical control in the system of organization of physical education and sports classes.
10. Types and methods of pedagogical control. Testing of physical, technical fitness and functional condition.
11. Medical support of physical education and sports at the university. Biomedical methods of monitoring the physical and functional state of the human body.
12. Medical supervision. Medical and pedagogical supervision. A diary of self-control. Objective and subjective indicators of self-control.

### **Discipline "Physiological fundamentals of functional fitness management of athletes and those involved in PE"**

1. Physiological mechanisms of motor skills formation. Functional system and a systematic approach to the analysis of P.K. Anokhin
2. Functional fitness of an athlete as a complementary concept.
3. The physiological basis of motor qualities. The role of the nervous system in the formation of motor skills. Adaptation to muscular activity.

4. Changes in the body during various types of muscular activity. Assessment of the functional state of the functional system.
5. Changes in the cardio-respiratory system, changes in the muscular and nervous systems. Indicators of physical development and athletic performance.
6. Features of functional indicators of the body of highly qualified athletes. The importance of working capacity for achieving high results in sports.
7. The physiological basis of the training process. Concepts of the physiological reserves of the body.
8. Means and methods of PCIs for mobilization of physiological reserves of the body. Methods for assessing functional readiness.
9. Features of functional training in cyclic sports. The use of instrumental methods to assess functional fitness.
10. Features of functional training of swimmers. Physiological differences in the body of a highly qualified athlete.
11. Features of functional training in game sports. Characteristics of functional fitness of athletes in cyclic sports.
12. Features of functional training in martial arts. Characteristics of functional fitness of athletes in sports games and swimming.
13. Features of functional training in cyclic sports. Characteristics of functional fitness of athletes in technically complex and highly coordinated sports.

### **Discipline "Technologies of physical education in higher education"**

1. Program construction of the course of physical education. The content of the physical education course. The functions of physical education of the student. General provisions of the program. Teaching methods (technologies). Diagnostics of students' social and personal competencies.
2. Organization and content of the educational process in educational departments. The basic principles in determining the content of work in different educational departments. The content of the discipline "Physical culture".
3. Medical support of physical education and sports at the university. The basics of controlling the physical condition of the body. Medical supervision as a condition for admission to physical exercises and sports, its content and frequency.
4. The concept and essence of professionally applied physical training, its purpose and objectives. Requirements for the physical fitness of specialists in various fields of activity and trends in their changes. Comprehensive formation and education of applied skills, physical and special qualities. Basic concepts and terms in the PFPF.
5. Physical culture and sport as a social phenomenon. Physical culture as a social phenomenon. The emergence of the term "physical culture".

6. Forms of organization of physical culture, recreation and sports work. Physical education and sports clubs. Groups of health, general and special physical training. Sports sections
7. Structural characteristics of physical culture: types and varieties. sport. General cultural and specific functions of physical culture. Organization of reporting, types and forms of accounting documentation of a physical culture and sports organization
8. Organization and planning of the educational and training process and sports competitions. Planning. Sports competitions. Types of competitions. The competition regulations.

### **III. List of sources used**

#### **Main:**

1. Akhmetov S. M. Innovation processes in the system of professional education. M, TiP FC. 2004.
2. Kulnazarov A.K., Koshaev M.N. Dene tarbiesi zhane sporty damytuga akparattyk technologylar men kompyuterlik zhanartuda engizu. Almaty, 2011.
3. Polat E.S. Modern pedagogical and information technologies in the education system: textbook. aid for students universities / Polat E.S. ; Bukharkina M.Yu. - 2nd ed., - M: Academy, 2008. - 368 p.
4. Model curriculum “Physical Education” ( for all specialties and areas of higher education institutions). Almaty, 2016
5. Elantsev A.B., Tulekhanov S.T., Mautenbaev A.A., Madieva G.B. Physiological foundations of physical education and sports: textbook. – Almaty: Kazakh University, 2011. – 127 p.
6. Dubrovsky V.M. Sports physiology. – M.: Publishing house VLADOS-PRESS, 2005.
7. Solodkov V.M., Sologub E.B. Human physiology. General. Sports. Age appropriate: textbook for higher educational institutions of physical education. – M.: Terra-Sport, Olympic Press, 2001.
8. Zheleznyak Yu.D. Fundamentals of scientific and methodological activities in physical culture and sports. M.:Academy , 2005.-272 p.
9. Seluyanov V.N., Shestakov M.P. Scientific and methodological activities. M.: FiK , 2005. -288 p.
10. Theory and methods of physical education in 2 volumes. Volume 2.: Textbook for students of higher educational institutions of physical education and sports / Ed . T.Yu. Krutsevich . – K.: Olympic literature, 2003 г. – 390 s.
11. Madieva G.B. Organization and methodology of the educational process, physical education, health and sports work at the university. Tutorial. Almaty, "Kazakh Universities ", 2013. - 84 p.
12. Madieva G.B. Physical culture in higher educational institutions. Monograph. Almaty, "Kazakh Universities ", 2018. - 128 p.
13. Baturin V.K. Philosophy of science: textbook. - M., 2012.
14. Kaudyrov T.E. Intellectual property law in the Republic of Kazakhstan, Almaty: Zheti Jargy , 1999 – 68 p.

15. Torosyan V.G. History and philosophy of science: textbook for universities. - M., 2012.
16. Yushkov A.V. Basics of planning scientific research. Kazakh universities , 2004.

**Additional information:**

- 1 Law “On Education” of the Republic of Kazakhstan dated July 27, 2007 No. 319- III .
- 2 Law “On Physical Culture and Sports” of the Republic of Kazakhstan dated December 2, 1999 No. 490.
- 3 Order of the Ministry of Education and Science of the Republic of Kazakhstan “On the implementation of the State Program for the Development of Physical Culture and Sports in the Republic of Kazakhstan for 2007-2011” dated September 2, 2008 No. 498.
- 4 Regulations on Presidential tests of physical fitness of the population of the Republic of Kazakhstan (approved by Decree of the Government of the Republic of Kazakhstan dated June 12, 2002 No. 637).
- 5 Kostyuchenko V.F., Kulnazarov A.K. Professionalism in the field of physical education. – Almaty, Kazstatinform , 2004. – 143 p.
- 6 Organizational and methodological foundations of teaching physical education. In 2 volumes. T.1. M.: Academy, 2008. – 256 p.
- 7 Physical culture of a student : textbook. for students universities / ed. V. I. Ilyinichna. - Moscow: Gardarika, 2000. - 448 p.
- 8 Philosophy and methodology of science. For graduate and undergraduate students / Ed. K.H. Rakhma Tullina and others - Almaty, 1999.
- 9 Patent Law of the Republic of Kazakhstan. – Almaty: Daneker , 2001 – 31 p.