

CHARACTERISTIC OF THE EDUCATIONAL PROGRAM

The purpose of the educational program: Training of highly qualified PhD doctors who possess knowledge and skills of scientific knowledge in physics and methods of teaching physics in higher education and are able to develop and implement educational programs taking into account advanced technologies of the educational process

1.1 GENERAL INFORMATION

Type of educational program	current
Name of the educational program	8D01501-Physics
Field of education	8D01 Pedagogical sciences
Training direction	8D015 Teachers training in natural scientific subjects
The group of the educational program	D011 Teacher training in physics
License to engage in educational activities	The educational program is implemented on the basis of the appendix to the License No. KZ75LAA00018542 dated August 04, 2020 in the direction of personnel training 8D01501-Physics, issued by the RSU "Committee for Quality Assurance in the field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan".
Number and Date of Registration/ Update in the Register of EP	No. 8D01500019, date of renewal of the EP passport 25.08.2023y.
Educational level by NQF	Doctorate Degree, level 8
Awarded degree	Philosophy doctor PhD in the educational program 8D01501-Physics
The total amount of academic credits	180
Study duration	3 years

1.2 VISION, MISSION, PROGRAM GOAL, VALUES, UNIVERSITY GRADUATE ATTRIBUTES

Vision:

An intellectual platform that develops educators who are open to new ideas and able to lead in a rapidly changing world.

Mission:

Developing teacher leaders, who can create, develop, and disseminate advanced knowledge and values in education for the benefit our country and the world.

Program goal:

Our University aims to become a hub for innovative teaching, learning, research as well as the development of rural education in Central Asia.

Values:

Integrity, commitment, care.

University graduate attributes:

- Self-guided learners and reflexive practitioners
- Responsible personalities with moral and ethical values
- Professionals with deep subject knowledge and digital skills
- Creative and critical thinkers and excellent team players and communicators
- Adaptive leaders in teaching and learning
- Diverse, inclusive and for equality of opportunity in society

1.3. THE RATIONALE BEHIND THE EDUCATION PROGRAM

The educational program 8D01501-Physics is the third and final stage in the cycle and is aimed at preparing scientific and pedagogical personnel of the highest qualifications of a new generation, competitive in the intellectual labor market, possessing the skills of analytical, research and teaching activities. able to independently pose and solve scientific and pedagogical problems in the field of physics by methods of scientific research. Education under the educational program 8D01501-Physics is carried out in full-time education. The volume of EP 8D01501-Physics is 180 academic credits, the educational program 8D01501-Physics is carried out according to an individual curriculum.

1.4. DISTINCTIVE FEATURES OF THE EDUCATIONAL PROGRAM

Academic mobility	-
Double-degree program	-

Coincidence with similar EP of leading universities in the near and far abroad

- 1) With Moscow State Pedagogical University (MPSU, RF) - 77%.

1.5. GRADUATE CAREER OPPORTUNITIES

Doctoral students completing the educational program 8D01501-Physics can work in:

- higher educational institutions;
- government bodies in the field of education, physical industry;
- research centers in the field of physics, state bodies for the management of industrial and scientific and educational complexes;
- experimental and research, production and technological, calculation and analytical, design and technological, production institutions;
- management organizations: government bodies, education departments, organizations of various forms of ownership, using physical research methods in their work.

1.6. AREAS OF PROFESSIONAL COMPETENCE

Area of professional competence 1

- In the field of Education: Teacher of physics in higher educational institutions of the state and non-state sectors;

Area of professional competence 2

- Production and organizational and managerial activities in state institutions of various levels – in scientific organizations, research institutes

Area of professional competence 3

- Production-technological: working in institutions of the above direction – research and experimental-research: as specialists and research workers in physical laboratories.

1.7. EDUCATIONAL PROGRAM LEARNING OUTCOMES:

LO1. Owns the methodology and methods of scientific and pedagogical research.

LO2. Demonstrates fluency in oral and written academic communication, and practical skills in the preparation and execution of various types of research papers or scientific and technical documentation.

LO3. Interprets the results of scientific and pedagogical research, evaluates the limits of their applicability, possible risks of their implementation in the scientific, educational and sociocultural environment, the prospects for further research.

LO4. Organizes the work of a research team in various fields of physics.

LO5. Designs and implements the educational process and the program of additional professional education in accordance with the needs of the employer.

LO6. It uses educational technologies, methods and means of training and education in order to ensure the planned level of personal and professional development.

LO7. To conduct an analysis of scientific and educational activities.

LO8. Demonstrates readiness for teaching on the main educational programs of higher education in the field of physics.

RO 9. Possess high-level critical and creative thinking skills, are capable of self-regulation and reflection to solve professional tasks

RO 10. Demonstrate knowledge and compliance with ethical and legal norms in research and the use of digital technologies. Apply security measures when working with digital information and data protection, promote active, safe and ethical use of digital resources.

Matrix for correlating EP learning outcomes with graduate attributes

	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8
AG1	*	*		*		*	*	
AG2		*						*
AG3	*	*	*	*			*	*
AG4			*		*			
AG5			*		*			
AG6	*			*		*	*	*

1.8. REFERENCES

The educational program is developed based on the following legal acts:

1) State mandatory standard of postgraduate education. Order of the minister of Science and higher education of the Republic of Kazakhstan dated July 20, 2022 No. 2.

2) Professional standard «Teacher» approved by the order of the Chairman of the Board of the National Chamber of entrepreneurs of the Republic of Kazakhstan "Atameken" No. 133 dated June 8, 2017.