

DESCRIPTION OF THE EDUCATIONAL PROGRAM

The purpose of the educational program: Training doctoral students demonstrating professional skills in the field of information technology, developing innovative innovation in the field of science and management

1.1 GENERAL INFORMATION

Type of educational program	current
Name of the educational program	8D01502-Computer science
Field of education	8D01 Pedagogical sciences
Training direction	8D015 Training of natural science teachers
The group of the educational program	D012- Teacher training in Computer science
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 8D01502-Computer science, 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	8D01500020, 25.10.2021
Educational level by NQF	Doctoral degree, level 7
Awarded degree	PhD on educational program 8D01502-Computer science
Accreditation	
Rating of the educational program	
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 of the University

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, dedication, caring for others

Attributes of a University graduate:

- Self-taught, able to reflect and explore their practice
- Have moral and ethical qualities and are responsible
- Have deep subject, digital knowledge and a broad intellectual outlook
- Creative and critical thinking, collaborative and communicative
- Practice leadership in teaching and learning, and are adaptable to rapidly changing conditions
- Diverse, inclusive and for equal opportunities in society

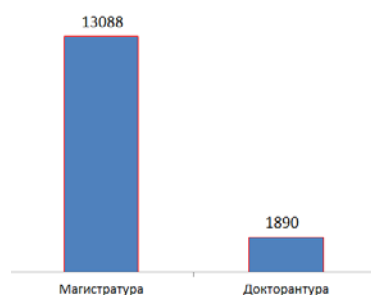
1.3. JUSTIFICATION OF EDUCATIONAL PROGRAMS

The training program of doctor of philosophy (PhD) on the educational program “8D01502-Computer science” is determined by the results of training, which are formed on the basis of Dublin descriptors and expressed through the competencies of personal, General cultural and professional training. The educational program for the preparation of the Doctor of Philosophy (PhD) 8D01502 - Computer science has a scientific and pedagogical focus and involves fundamental educational, methodological and research training and in-depth study of disciplines in the relevant areas of science for the system of higher and postgraduate education and the scientific field.

Topically of educational program. At the international level, the need and importance of training PhDs in science and education are recognized as a tool for reforming education and improving the quality of postgraduate education. The individual trajectory of doctoral student training implies the possibility of studying abroad, which ensures functioning with primary sources, the possibility of conducting scientific experiments on the basis of a host institution of higher education or a research center, speaking at scientific symposia, conferences, etc. The implementation of the educational program 8D01502 - Informatics provides free access to international information networks, electronic databases, library stocks, computer technologies, educational and scientific literature.

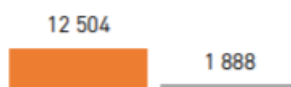
Market demand. Statistical analysis was carried out on the basis of the National Report on the State and Development of the Education System of the Republic of Kazakhstan, which was prepared by Information and Analytical Center JSC by order of the Ministry of Education and Science of the Republic of Kazakhstan based on an analysis of official statistics and information provided central and local executive bodies.

In the 2022-2023 academic year, about 88 thousand grants were allocated to all levels of higher education programs, of which 13,088 and 1,890 grants were allocated for the preparation of masters and PhD doctors.



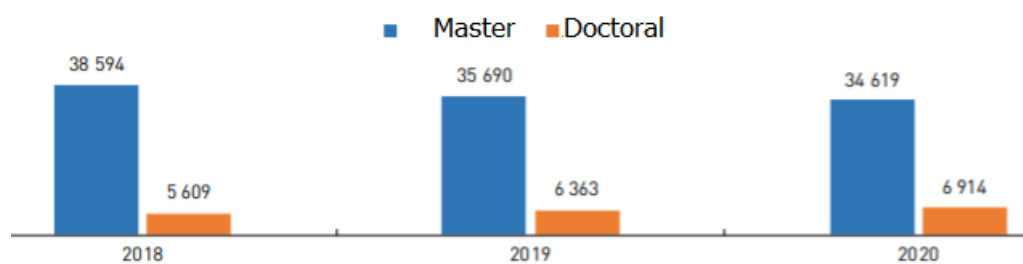
The state educational order at three levels of higher education for the 2020– 2021 academic year amounted to more than 68 thousand grants. 12504 and 1888 units were allocated for the preparation of masters and PhD doctors, respectively.

■ Master ■ Doctoral



Over the past three years, the number of students enrolled in doctoral studies has increased by 19.1%. In 208, the number of students enrolled in doctoral studies increased by 5,609, in 2020 - by 1,305 students.

The number of students enrolled in postgraduate education programs, 2018-2020, people.



With the transition to a three-stage system of personnel training in 2020, there is a decrease in the number of teachers with a PhD degree. In 2020, the number of teachers with a PhD degree was 113, which is 19 people less than in 2018.



1.4. FEATURES OF THE EDUCATIONAL PROGRAM

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

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

45% - Anatolian University (Anadolu Üniversitesi)

40% - Moscow Pedagogical State University

1.5. POTENTIAL DIRECTION AND JOBS FOR GRADUATES

- design of the educational process in educational institutions;
- development and implementation of research and innovation works;
- organization and management of production activities in educational institutions;
- organization of the technological process in educational institutions;

The educational program is developed based on:

1) 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.

2) SQF of education approved by the Protocol No. 2 of the meeting of the sectoral trilateral commission on social partnership and regulation of social and labour relations under Ministry of Education and Science of the Republic of Kazakhstan dated November 23, 2016.

1.6. AREAS OF PROFESSIONAL COMPETENCE

- possesses professional-level knowledge for the implementation of pedagogical, scientific, managerial activities in research institutions and centers of informatization of education;
- organizes and conducts research work in general education and specialized schools, lyceums, gymnasiums, colleges, pedagogical institutions and higher educational institutions;
- plans the content of the computer science course in educational institutions, applies innovative methods in teaching;

Types of professional activity:

Teacher. Teacher - higher education institutions

Researcher - research institutes, research centers, design and scientific production organizations

Manager in education – Institutions of secondary and secondary special education, higher educational institutions

1.7. LEARNING OUTCOMES EDUCATIONAL PROGRAMS:

LO 1 - uses international peer-reviewed databases and resources to publish scientific and informational texts in compliance with the rules and principles of search, research, and creation of scientific articles;

LO2 – uses the theoretical and methodological foundations of the development of pedagogical and psychological science, teaching methods, management and development processes, the essence and content of psychological and pedagogical research in professional activity;

LO3 – performs research work in the field of subject research and knows the methods and techniques of conducting pedagogical experiments.

LO4 – uses information and communication and digital technologies in research and teaching activities;

LO5 – develops software products and training courses for the implementation of training in a virtual educational environment.

Matrix for correlating EP learning outcomes with graduate attributes

	LO1	LO2	LO3	LO4	LO5
AG1	+	+	+	+	+
AG2				+	
AG3	+	+	+		+
AG4			+	+	
AG5			+		
AG6	+	+	+	+	+

1.8. REGULATORY REFERENCES

The program is developed on the basis of the following regulatory legal acts:

- 1) The State general education 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". Order of the Acting Minister of Education of the Republic of Kazakhstan dated December 15, 2022 No. 500.