



1. CHARACTERISTIC OF THE EDUCATIONAL PROGRAM

The purpose of the educational program: Training of Master of Educational Sciences capable vocational education and scientific activity, with deep pedagogical, research and managerial skills.

1.1 GENERAL INFORMATION

Type of educational program	current
Name of the educational program	7M01505 - BIOLOGY
Field of education	7M015 -Teacher Training in Natural Science
Training direction	7M01- Pedagogical Sciences
The group of the educational program	M014-Teacher Training in Biology
License to engage in educational activities	The Educational program is implemented on the basis of the Appendix to the License № KZ75LAA00018542 dated August 04, 2020 in the direction of training 7M01505-Biology, issued by the Committee for Control in the Field of Education and Science of Ministry of Education and Science of the Republic of Kazakhstan.
Number and Date of Registration/ Update in the Register of EP	№ 7M01500059 10.09.2020
UNT Subjects	-
Educational level by NQF	Master's degree, level 7
Awarded degree	Master of Pedagogical Sciences in the educational program «7M01505-Biology»
Accreditation	1) <i>Institutional accreditation:</i> The Educational Program is accredited by the Independent Agency of Accreditation and Rating, certificate No. 12018901, Validity of the certificate: 24.06.2019 – 23.05.2024. 2) <i>Specialized accreditation:</i> Independent Agency for Accreditation and Rating IAAR, certificate No. 12018901 dated 05.24.2019, Validity of the certificate: 05.24.2019 - 05.23.2024
Rating of the educational program	IAAR – 2 nd place in 2016, 3 rd place in 2017
The total amount of academic credits	120
Study duration	2 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 of 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**Therelevanceoftheeducationalprogram.**

At the current stage of the development of postgraduate education, the Republic of Kazakhstan provides for the training of professionally qualified, competitive and competent teachers. Professional training of teachers in natural disciplines is aimed at formation of key competences in the field of pedagogical sciences. For our State, the need for practical training of specialists in the field of natural science with knowledge of the basics of work in research institutes, departments of education, as well as in higher and secondary educational institutions as a teacher of biology is considered very relevant.

The educational program is designed to train highly qualified personnel with advanced knowledge in the field of educational biology, who have knowledge of the directions of modern biology and are able to apply the obtained competences in the scientific and pedagogical sphere. The basis of the educational program is the training of pedagogical personnel able to carry out expertise of scientific projects and research, perform teaching, research, organizational and technological, production and management, educational, cultural and educational work.

Market demand.

The qualitative and quantitative composition of teachers in schools of the Republic of Kazakhstan (without part-time job) is 296,960, of which 9648 are biology teachers of full-time state comprehensive schools, mainly in the South Kazakhstan region in 1928 and in the Almaty region for 1183 hours. The least provision of biologists in rural districts of Mangistau (312 hours), Atyrau (356 hours) regions. The need for teaching staff of day-time state comprehensive schools amounted to 4,952 people, 129 of them in biology. http://iac.kz/sites/default/files/nacionalnyy_sbornik_2017-2018.pdf

Due to the transition from 2019-2020 of high school to study of subjects of natural science cycle in English, the need for pedagogical personnel in biology amounted to 15,773 persons. (Source: <https://www.zakon.kz/4891274-trehyazychnoe-obuchenie-v-kazahstane.html>)

1.4. DISTINCTIVE FEATURES OF THE EDUCATIONAL PROGRAM

Academic mobility	1. Mississippi Valley State University (MVSU, USA) 2. Niide Omer Halisdemir University (Turkey)
Double-degree program	-

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

Lomonosov Moscow State University- 37%;

Herzen State Pedagogical University of Russia- 33%;

Moscow State Pedagogical University -31%;
University of Rhode Island - 44%
Belarusian State University - 50%;
University of Luxembourg – 37%.

1.5. GRADUATE CAREER OPPORTUNITIES

General education and specialized secondary schools, lyceums, colleges, gymnasiums, preschool institutions, publishing houses for educational literature, education departments, organizing professional development of specialists; research institutes and centers; organization of secondary vocational education; authorized and local education authorities.

1.6. AREAS OF PROFESSIONAL COMPETENCE

Area of professional competence 1

- in the field of education (biology teacher in high school, lyceum, gymnasium, college, higher education institution);

Area of professional competence 2

- production and management activities in public institutions at various levels (education department, administration, horticultural organizations, ecology);

Area of professional competence 3

- area of research (specialized research organizations: botany, zoology, human anatomy, physiology, ecology, genetics, molecular biology, biotechnology, etc.) station of young naturalists, national parks, reserves, other areas requiring higher professional education in accordance with the law Republic of Kazakhstan.

1.7. EDUCATIONAL PROGRAM LEARNING OUTCOMES:

LO 1 - recognize themselves as citizens of the world and responsible members of the digital society, promote the safe use of digital information and technologies, compliance with ethical and legal standards.

LO 2 – use the principles of self-regulation, are reflective in all aspects of life, adhere to an active lifestyle, demonstrate openness to new knowledge, and have an exploratory inquisitiveness to receive and analyze information.

LO 3 – able to easily communicate in different communities, in 3 languages, have the skills to effectively convey ideas, know how to manage a team and be part of it, create an inclusive environment, are adaptive and open to new knowledge.

LO 4 – Identifies theoretical bases and applied research in the field of biochemistry development, microbiology using modern information technologies

LO 5 -Adapts innovative technologies, methods and tools, principles and patterns in selected fields of biology and teaching of natural-scientific subjects

LO 6 – Designs methodological advances and current biology problems using modern methods of scientific research, processing and interpretation of experimental data

LO 7 – Explores biological features, reasons for organizing groups of medicinal and cultural plants, algae, their patterns, possible ways of managing and using effectively

LO 8 – Categorizes the taxonomic diversity of the animal world and plants, the process of interaction between bioenergy and environmental disasters in the world space

LO 9– Assesses the physiology and anatomy of the nervous system in the evolutionary process and the basic concepts of biological knowledge, reflecting the problems of human evolution, interaction with the environment

LO 10 –Forms the concept of biological catalysts, the genome of prokaryotes and eukaryotes and interactions between living organisms, the evolution of basic signs of homology

Matrix for correlating EP learning outcomes with graduate attributes

	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8	LO 9	LO 10
GA1	+			+	+		+		+	+
GA 2	+	+				+		+		
GA 3		+	+		+		+		+	+
GA 4						+		+		
GA 5	+		+	+			+	+	+	
GA 6			+	+	+	+				+

1.8. REFERENCES

The educational program is developed based on the following 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 No. 500 dated December 15, 2022.