

6B01512 Geography- Biology

The purpose of the educational program: Training of professional personnel for the education system with fundamental knowledge and innovative methods for the implementation of pedagogical activities in the field of teaching geography and biology.

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 6B01512 – Geography- Biology is aimed at the personal and social development of students, psychological and pedagogical support of the educational process. It also ensures the implementation of professional activities aimed at harmonizing the social spheres of the educational process and education in the spirit of patriotism, friendship of the peoples of the Republic of Kazakhstan, respect for different cultures, traditions and customs.

In the period of the strengthening of the globalization process in the world, modern geography is an independent science combining knowledge about modern geography-the earth in the period of the strengthening of the globalization process in the world; combining knowledge about the earth, provides a combination of natural science, political and social, socio-economic, environmental and technological information.

Educational program 6B01512 – Geography- Biology it is focused on the ability to formulate and accurately solve problems in the field of geography and biology education, apply information technologies in the framework of pedagogical activity, and successfully implement research activities.

The educational program regulates the goals, results, content, conditions and technologies for the implementation of the educational process, as well as an assessment of the quality of graduate training in this area of training, and contains materials that determine the quality of training of students and the implementation of appropriate educational technologies.

Market demand. Highly qualified teachers play an important role in improving the quality of secondary education and depends on the professional training of staff. The number of teachers in the country is increasing every year.

By geography: There are **285 996** teachers working in State secondary schools, including **9 040** geography teachers. The total number of teachers with a master's degree in public secondary schools is **5029**, of which **236** are geography teachers.

The need for teaching staff in state secondary schools, in total state secondary schools is **5 267** people, of which **133** are geography teachers. (Akmola- 20, Aktobe- 2, Almaty- 9, Atyrau- 2, WKO- 6, Zhambyl- 5, Karaganda- 35, Kostanay-0, Kyzylorda-0, Mangystau- 9, Pavlodar- 5, SKO- 18, Turkestan- 4, East Kazakhstan region-2, Astana-4, Almaty-2, Shymkent-2).

By Biology: There are **285 996** teachers working in State secondary schools, including **9 651** biology teachers. The total number of teachers with a master's degree in public secondary schools is **5 029**, including **293** biology teachers.

The need for teaching staff in state secondary schools, in total state secondary schools is **5 267** people, of which **136** are biology teachers. (Akmola- 5, Aktobe- 2, Almaty- 0, Atyrau- 0, WKO- 60, Zhambyl- 2, Karaganda- 9, Kostanay-0, Kyzylorda-11, Mangystau-7, Pavlodar- 1, SKO- 2, Turkestan- 1, East Kazakhstan-1, Astana-2, Almaty-0, Shymkent-0). (Source: NOBD data: JSC "INFORMATION AND ANALYTICAL CENTER", "STATISTICS OF THE EDUCATION SYSTEM OF THE REPUBLIC OF KAZAKHSTAN" National Collection).

1.4. DISTINCTIVE FEATURES OF THE EDUCATIONAL PROGRAM

Academic mobility	Niide University (Turkey, Niide)
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Coincidence with similar EP of leading universities in the near and far abroad

Maynooth University. In the 1st year, he studies 15 credits in geography, biology, in the 2nd year 20 credits in geography, 20 credits in biology, 25 credits in geography, 25 credits in biology; Conducts research in geography and biology in the 4th year 5 credits.

1.5. GRADUATE CAREER OPPORTUNITIES

- General education organizations (secondary schools, gymnasiums, lyceums, teacher training colleges, organizations of primary and secondary vocational education, departments of education, research and production institutions, universities, educational centers)

1.6. AREAS OF PROFESSIONAL COMPETENCE

Area of professional competence 1

Activity studies and masters the advanced pedagogical and geographical experience in the field of education on geography. Independently develops the most advanced experimental, ICT tools, technologies and ways of teaching geography. Experimental geographic practice at the proper professional level. Assesses the role of geographical science in social and economic development. Assesses the student's self-education, practical skills and knowledge of geography. Has the knowledge, skills and abilities necessary for the implementation of all professional activities. Summarizes the content of the discipline in professional orientation with the use of obtained knowledge To be able to organize the study and teaching of geography, as well as to assess their abilities and interests, deeply mastering the subject area, coordinate it with the needs of society, to use the results of modern research in professional activities.

Area of professional competence 2

Is able to apply geographical knowledge in various situations of daily life, methods of geography teaching and ways of practice. Apply the knowledge of General and theoretical geography for understanding and analysis of natural and man-made phenomena and processes. Combines actual problems of geography and global actual problems. Work with the map on geography, development of research projects, analysis of results and summarizing. Applies knowledge and skills in practice. Proves his point of view on the basis of appeal to ideas. Deliberately exploring different approaches to form your own conclusions. Manages ICT tools with precision in accordance with its professional activities. Understands and demonstrates respect for the use of ICT tools. Committed to professional and personal growth. The graduate of the program will acquire professional skills in applied biology. Possess biological knowledge sufficient to prepare a student for the international Olympiad and ready for scientific activity.

Area of professional competence 3

Effectively organize and use your time. Aware of the responsibility in its activities, complies with safety regulations, is active in the protection of the environment. The team clearly communicate their thoughts, offering new solutions in accordance with the result. Able to work in a group, able to combine his opinion with the opinion of the team, expresses high confidence in maintaining their views and ideals in conflict resolution. Explains social and ethical values based on social norms. With the accuracy of use in professional activities.

1.7. EDUCATIONAL PROGRAM LEARNING OUTCOMES:

LO 1 - Applies a variety of communication formats taking into account socio-cultural diversity, adheres to the principles of equality and accessibility in education, to create a prosperous and inclusive environment, has leadership qualities and is able to apply them to develop collective potential.

LO 2 - Possess high-level critical and creative thinking skills, are capable of self-regulation and reflection to solve professional problems.

LO 3 - Demonstrate knowledge of and adherence to ethical and legal norms in research and use of digital technologies. Apply security measures when working with digital information and data protection, promote the active, safe and ethical use of digital resources.

LO 4 - Discusses the history, theoretical foundations, main problems, prospects of geographical science, knows the patterns characteristic of the globe, the causes of natural phenomena and trends, predicts, determines, compares, understands the physical and geographical position, interrelations of the components of nature, characterizes, distinguishes natural territorial complexes and features of their location, determines geographical objects and recreational places.

LO 5 - Characterizes the economic and geographical position, compares, evaluates socio-economic development and the quality of recreational activities, knows the categories of geoeconomics, methods of effective use of natural resources, classifies, determines the role of countries and regions in geographical space, discusses, evaluates the geo-economic situation.

LO 6 - Knows the essence, the main types of political geography, methods of environmental protection, discusses external and internal geopolitics, administrative-territorial division and regional policy, political ideas. Compares urban agglomerations, discusses strategic directions of urban development, environmental problems, analyzes, predicts sustainability.

LO 7 - Creates, analyzes geographical maps and plans, conducts cartographic and geodetic measurement and field research. Defines geographical concepts and terms, the meaning of geographical names, knows, classifies, applies geography teaching tools, topographic tools, geodetic instruments, geoinformation technologies, methods of geographical research.

LO 8 - Apply the principles of distribution, systematization, evolution and phylogenetic relationships of plants, animals and microorganisms in the environment in the learning process;

LO 9 - Proficient in the methods of molecular biology, biotechnology and microbiological research, applies in scientific projects;

LO 10 - Analyzes the basic structure of the human body, historical development, age characteristics and its interaction with the environment;

LO 11 - Possesses knowledge in the field of modern biological science, studies, generalizes, applies and disseminates the experience of highly professional teachers;

LO 12 - Is able to apply innovative methods of teaching geography and biology and methods of practical activity, a system of criteria assessment. Has pedagogical and geographical, biological experience, uses the results of research in professional activities.

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	LO 11	LO 12
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 mandatory standard of Higher and Postgraduate Education, approved by the Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated July 20, 2022 No. 2. Registered with the Ministry of Justice of the Republic of Kazakhstan on July 27, 2022 No. 28916.

2) The Professional standard "Teacher" approved by the order of the Acting Minister of Education of the Republic of Kazakhstan dated December 15, 2022 No. 500. Registered with the Ministry of Justice of the Republic of Kazakhstan on December 19, 2022 No. 31149.

3) Methodological recommendations on the organization and conduct of pedagogical practice for students of the field of education "pedagogical sciences. Order No. 125 of 27.03.2023

