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1. CHARACTERISTIC OF THE EDUCATIONAL PROGRAM

The purpose of the educational program: Training of masters of education who possess deep knowledge in the field of geography, carrying out professional pedagogical, scientific and managerial activities based on new ideas and technologies.

1.1 GENERAL INFORMATION

Type of educational program	current
Name of the educational program	7M01506-Geography
Field of education	7M01 Pedagogical science
Training direction	7M015 Training of teachers in natural science subjects
The group of the educational program	M015 Training teachers of Geography
License to engage in educational activities	The Educational program is implemented on the basis of the Appendix to the License № KZ75LAA00018542 dated August 4, 2020 in the direction of training “8D01506-Geography” 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	№7M01500041, «09» 02.2022
UNT Subjects	Geography
Educational level by NQF	level 7, Master's Degree
Awarded degree	Master of Education in the educational program “7M01506-Geography”
Accreditation	<i>Institutional accreditation:</i> Independent Agency of Accreditation and Rating, Certificate No. 12018901, date of issue: 24.05.2019, validity period of accreditation: 23.05.2019 – 23.05.2024
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 intelligent platform that develops teachers who are able to manage in a rapidly changing world.

Mission:

Formation of teachers of leaders who are able to create, develop and disseminate advanced knowledge and values in the field of education for the benefit of the country and the world.

Program goal:

Preparation of Masters of education with deep knowledge in the field of geography, carrying out professional pedagogical, scientific and managerial activities based on new ideas and technologies.

Values:

Integrity, dedication to one's work, caring for others.

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 Relevance of the EP.

The educational program "7M01506-Geography" is aimed at training educated, qualified, competitive teachers (cadres) with professional values and skills, possessing modern innovative methods and techniques of teaching in the field of geography, inclined to creative thinking.

The need of the market.

This EP in the specialty includes competencies closely related to learning outcomes and the demands of the modern market of educational services. The demand for graduates of educational institutions in the labor market is one of the most important indicators of the effectiveness of education. Close contacts have been established with potential consumers of graduates at the regional and national levels.

Geography is the only scientific discipline that combines socio-humanitarian (economic, social, political geography, geography of population, labor resources and tourism, problems of demography, etc.) and natural (climate change, hydrology and surface water resources, glaciology and geocryology, geomorphology, landscape studies, problems of geocology) components in their interaction as the basis environmentally sound environmental management and sustainable development at the sectoral, national and regional levels. In this regard, the study of the interaction between society and the environment is one of the most pressing problems of our time.

As world experience shows, this issue is closely related to the training of personnel in the field of geography who possess innovative methods capable of applying traditional and modern geographical methods in scientific research.

1.4. FEATURES OF THE EDUCATIONAL PROGRAM

The training program for masters of education under the educational program "7M01506-Geography" is determined by the results of training, which are formed on the basis of Dublin descriptors and are expressed through the competencies of general, methodological and subject



training. The educational program has been developed taking into account the generalization of modern domestic and international experience of training in this area, author's and collective scientific achievements and educational and methodological developments in the field of specialization, the requirements of employers and the demands of the labor market.

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

University of Szeged (SZTE) (Szeged, Hungary) – 50%, Lomonosov Moscow State University – 70%.

1.5. GRADUATE CAREER OPPORTUNITIES

The need for specialists in the field of geography is experienced by companies of various profiles, leading educational and research activities, as well as environmental, environmental and other organizations, government agencies and design institutions of Kazakhstan. Graduates of the OP work in teaching, administrative and economic positions:

- Ministry OF Foreign Affairs OF Kazakhstan;
- Institute of Geography;
- Kazakhstan Institute for Strategic Studies under the President of the Republic of Kazakhstan;
- experts in the field of energy resources;
- international departments of administrative and executive bodies.

1.6. AREAS OF PROFESSIONAL COMPETENCE

Areas of professional competence 1

- possession of fundamental and applied knowledge for the implementation of pedagogical, scientific, managerial activities in the field of geography.

Areas of professional competence 2

- the ability to conduct classes in general education and specialized secondary schools, lyceums, colleges, gymnasiums, higher educational institutions, research centers, fields of science, education departments, teacher training institutions.

Areas of professional competence 3

- planning of the educational process; the ability to select materials, methods, techniques, means for meaningful activities and the organization of the developing environment.

Areas of professional competence 4

- performing scientific research in specialized disciplines in scientific and scientific-industrial institutions.

1.7. EDUCATIONAL PROGRAM LEARNING OUTCOMES

LOP 1 – Defines the current problems of modern philosophy of science, professional foundations of speech communication (listening, reading, speaking, writing) and skills of working with business correspondence (writing, e-mail and others).

LOP 2 – Presents the theoretical and methodological foundations of the development of the science of pedagogy and psychology, the processes of management and possession of teaching methods, the essence and content of psychological and pedagogical research.

LOP 3 – Designs the content of school geographical education taking into account new requirements, principles and concepts of education.

LOP 4 – Uses theoretical and practical knowledge to formulate and solve research problems.

LOP 5 – Has the skills to apply aerospace methods and geoinformation systems technologies in geographical research and education.

LOP 6 – Defines the current trends in the development of geographical science by analyzing geographical patterns, theories and concepts about the development of the Earth and society.



LOP 7 – Monitors changes in geosystems using bibliographic and statistical data and compiles their cartographic models.

LOP 8 – Projects the effective use of tourist and recreational resources, taking into account the regional fund of natural resources and the development of socio-economic factors.

LOP 9 – Predicts the upcoming geo-ecological situation in the countries of the world, comparing their rates of indicators of the use of natural resources and the economic policy of their development.

LOP 10 – Possesses research and digital skills.

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.



2. CONTENT OF THE EDUCATIONAL PROGRAM

№	Code and name of modules	Total credits by module	№	Name of subject and code	Credits by subjects	Cycle/component
1	ISE-1 Integration of science and education	16	1	ISE 501 History and philosophy of science	4	CC UC
			2	ISE 502 Foreign language (professional)	4	CC UC
			3	ISE 503 Higher School Pedagogy	4	CC UC
			4	ISE 504 Psychology of management	4	CC UC
2	TMGSE-2 Theory and methodology of geographical science and education	20	1	TMGSE 501/1 Theoretical and methodological problems of geography	5	CC OC
				TMGSE 501/2 Geourbanistics		CC OC
			2	TMGSE 502/1 Geographical modeling	5	CC OC
				TMGSE 502/2 Political geography with geopolitics bases		CC OC
			3	TMGSE 503/1 New concepts for the development of geographical education	5	CC OC
				TMGSE 503/2 Landscape ecology and monitoring		CC OC
			4	TMGSE 504 Planning and organization of scientific research	5	MC UC
			3	MMTG-3 Modern methods and technologies in geography	15	1
MMTG 501/2 Statistics of environment	MC OC					
2	MMTG 502/1 Geoinformation technologies in geographical research	5				MC OC
	MMTG 502/2 Environmental management in the context of globalization					MC OC
3	MMTG 503/1 Geo-economic aspects of the strategic development of the region	5				MC OC
	MMTG 503/2 Geoecological marketing					MC OC
4	GAMD-4 Geographical aspects of management,	11	1	GAMD 601/1 Cartographic support of scientific research	5	MC OC
				GAMD 601/2 Regional development, planning and management		MC OC



	design and forecasting		2	GAMD 602/1 Political Geography and Globalization of the Modern World	6	MC OC
				GAMD 602/2 Geographical problems of management and forecast in environmental management		MC OC
5	MGGPM-5 Modern geocological and geoeco- nomic problems of mankind	12	1	MGGPM 601/1 Geocology and environmental geography	6	MC OC
				MGGPM 601/2 Conservation questions in oil-extracting regions of Kazakhstan		MC OC
			2	MGGPM 602/1 World economy and international relations	6	MC OC
				MGGPM 602/2 Geography of a water management of RK		MC OC
6	RW-6 Research work	38	1	RW6.01 Pedagogical practice	4	CC UC
			2	RW5(6).02 Research practice	10	MC UC
			3	RW 5(6).03 Undergraduate research work, including internships and the implementation of a Master's thesis (MSRW)	17	MSRW
			4	RW 5(6).04 Methody of scientific research	5	MSRW
			5	RW 5.05 Academic writing	2	MSRW
7	FE Final attestation	8		FE 6.01 Registration and defense of the Master's thesis (RDMT)	8	FC
	Total:	120			120	



2.1. DESCRIPTION MODULES AND DISCIPLINES

ISE-1 Integration of science and education							
<i>Module description:</i> The module's disciplines are aimed at studying new achievements in the field of psychological and pedagogical sciences, acquiring oral and written communication skills in various situations of pedagogical communication, taking into account the peculiarities of the physiology and psychology of adolescent children, situational observation and adaptation skills. The basic terminology in the field of vocabulary and geography, expressing the general scientific style of the profession for educational and professional purposes, analyzes languages, methods of annotation and generalization, as well as literature of a scientific and pedagogical nature. Uses knowledge of a foreign language to communicate and understand special texts.							
№	Name of subject and code	Cycle/ component	Credits	Subject discription	Teaching methods	LO by EP	Assessment methods
1	ISE 501 History and philosophy of science	CC UC	4	The subject of the history and philosophy of science. Ideological aspects of science. Philosophy as an integral form of knowledge. Functions of science. The origin of science. Ancient science and philosophy. Scientific knowledge in the Middle Ages. The formation of New European science. New European science is a classic period of the history of science. Modern science. The main concepts and directions of non-classical and post-non-classical science. The main concepts and directions of postpositivist, postnonclassical science. Structure and level of scientific knowledge. The development of science as a vocation. Ideals and norms of science. The philosophical foundations of science and the scientific picture of the world. Scientific traditions and scientific revolutions. History and philosophy of natural sciences and engineering. History and philosophy of social sciences and humanities. Science as a social institution. Axiological aspects of modern science. The role of science in solving global problems.	General scientific methods: system analysis and synthesis, modeling, formalization, idealization	PO1	Written
2	ISE 502 Foreign language (professional)	CC UC	4	Systematization of acquired language knowledge and speech skills. Improving the skills of oral forms of communication in a foreign language, such as	General scientific methods: system analysis and	PO1	Written



				presentations of presentations with messages and reports, the implementation of professional contacts. Improving writing skills. Improving the solution of communicative tasks in the professional sphere using modern technical means and information technologies.	synthesis, modeling, formalization, idealization		
3	ISE 503 Higher School Pedagogy	CC UC	4	Theoretical and methodological foundations of higher school pedagogy. The content and structure of pedagogical activity. Professional competence and communicative knowledge of a high school teacher. Theory of higher education. Didactic foundations of higher education. Organization of the educational process at the university. Innovative processes in vocational education. Management of educational process management in the university system. Educational work at the university. Modern pedagogical technologies at the university.	The method of distance learning. Case technology. Information technology	PO2	Written
4	ISE 504 Psychology of management	CC UC	4	Methodological foundations of management psychology. Development of psychological management theories. General theoretical issues of management psychology. Analysis of management activities. Features of the manager's personality. Psychological features of management tasks. Psychology of property. Professional activity of a manager. Functions of the subject of management. Psychology of managerial communication. Psychological characteristics of the staff. Psychology of employee motivation. Human resource management technologies of the organization. Psychological support of the personnel policy of the organization. Psychology of conflict in the organization. Technologies for preventing professional deformation of the personality.	General scientific methods: system analysis and synthesis, modeling, formalization, idealization	PO2	Written



TMGSE-2 Theory and methodology of geographical science and education							
<i>Module description:</i> In the process of mastering the module, masters develop skills in applying geographical knowledge in practice, they also develop the ability to analyze the problems of terminology, modeling, forecasting, the functions of science, and geographical activity.							
№	Name of subject and code	Cycle/ component	Credits	Subject discription	Teaching methods	LO by EP	Assessment methods
1	TMGSE 501/1 Theoretical and methodological problems of geography	CC OC	5	Theoretical and methodological foundations of scientific knowledge and creativity, the main methods used in geographical research. The role of theoretical concepts in solving epistemological and constructive problems, the principles of system analysis of the geographical envelope. Geographical theories and patterns, concepts and hypotheses, spatial-temporal relations of geosystems.	Forecasting methods: mathematical methods and the role of computerization. Differentiated training by J.A. Karaev, A. Zhunisov	PO4, PO5, PO6, PO7, PO 8, PO 9	Written
	TMGSE 501/2 Geourbanistics			Population change and features of population distribution on the planet. Population densities and population growth rates. Geography of cities and geourban studies. System characteristics and structure of cities. Features of urbanization in Kazakhstan. The influence of the urban system on the geological and aquatic environment. The influence of the urban system on the atmosphere and climate. The influence of the urban system on biota. Methods for assessing the ecological and geochemical situation of urban ecosystems.	Explanatory and illustrative. Inductive method. The method of modular technology by M.Zhanpeisova	PO 6, PO 7, PO 8	Written
2	TMGSE 502/1 Geographical modeling	CC OC	5	Features of the application of geographical modeling in physical, social and economic geography. The structure of the modeling process, the main functions of models: psychological, collective, logical, systematizing, constructive and cognitive. Classification of models used in geography, multidimensional mathematical models used for typology. Promising methods of modeling geosystems and geographical processes – simulation modeling. The main provisions of modeling in geography.	Forecasting methods: mathematical methods and the role of computerization	PO 4, PO 6, PO 9	Written



				Methodological problems of modeling in geography due to the great complexity and specificity of territorial systems, the dynamism of geographical processes, the variability of their parameters and structural relationships. Selection of the most adequate models. The main stages of modeling geographical processes and phenomena.			
	TMGSE 502/2 Political geography with geopolitics bases			Political geography: origins, problems, theory, theory of "world systems". Issues of the development of world political geography and the concept of territorial and political organization of society (POS). Types of POS. Political and geographical location, district, region, country. Geopolitical regions of the world. Geostrategic areas. The study of theoretical approaches used in the geographical study of borders: historical-cartographic, classification, functional, geographical-political.	Explanatory-illustrative. Deductive method. The method of developing education by D.B.Elkonin and V.V. Davydov	PO 6, PO 9	Written
3	TMGSE 503/1 New concepts for the development of geographical education	CC OC	5	Modernization of geographical education. Ensuring the quality of education. Formation and development of new concepts of geographical education. Principles of ecologization, integration, globalization, regionalization, humanization and humanitarization of content. Personality-oriented learning. System-activity approach. Competence approach. Implementation of the meta-subject approach. Education that focuses on the expected learning outcomes. Definition of requirements for expected results. Basic and advanced level of geographical education.	General scientific methods: system analysis and synthesis, modeling, formalization, idealization. The method of developing education by D.B.Elkonin and V.V. Davydov	PO 2, PO 3, PO 4, PO 10	Written
	TMGSE 503/2 Landscape ecology and monitoring			Basic concepts of landscape ecology. Forms of anthropogenic impact on the landscape and types of monitoring used in various landscapes of the globe. Global monitoring (baseline, regional, impact levels), including background and paleomonitoring (historical). Ingredient monitoring. World	Forecasting methods: mathematical methods and the role of computerization. The method of developing educa-	PO7, PO8, PO9	Written



				Meteorological Organization and International monitoring of geosystems pollution.	tion by D.B.Elkonin and V.V. Davydov		
4	TMGSE 504 Planning and organization of scientific research	MC UC	5	Formation of the conceptual apparatus of scientific research. Analysis of structural elements of scientific research. Planning and organization of the master's thesis and course work. Methods of processing scientific information and the use of research results in the preparation of articles. International system of scientific publications. Types of scientific publications: monographs, articles and abstracts. Technical problems in the framework of research work. Bibliography. Work with scientific and literary publications.	General scientific methods: system analysis and synthesis, modeling, formalization, idealization	PO 4, PO 5, PO 6, PO7, PO 10	Written

MMTG-3 Modern methods and technologies in geography

Module description: When mastering the module, masters learn to identify and put into practice optimal approaches and ways of organizing the educational process. The module allows masters to form the ability to organize independent activities to solve applied and creative tasks, develop skills in developing and compiling thematic maps, compiling and analyzing databases, developing regional and local GIS.

№	Name of subject and code	Cycle/ component	Credits	Subject disruption	Teaching methods	LO by EP	Assessment methods
1	MMTG 501/1 Innovative methods in geographical education	MC OC	5	Scientific foundations and effectiveness of the use of innovative technologies in geography. Modular technology of M. Zhanpeisov's training. "Developing learning" by D.B. Elkonin and V.V. Davydov. The technology of differentiated learning by J.A. Karaev and A. Zhunusov. The problematic method of John Dewey and Makhmudov. The method of distance learning. Case technologies. Information technology. Interactive teaching methods.	The problematic method by John Dewey and Makhmudov. Distance learning method	PO 2 PO 3, PO 4, PO 5, PO 10	Written
	MMTG 501/2 Statistics of environment			Special methods: cartographic, balanced, alternative spatial and field	PO 7, PO 8, PO 9	Written	



				subsystems of environmental statistics indicators. International cooperation in the field of environmental protection and the creation of environmental statistics.			
2	MMTG 502/1 Geoinformation technologies in geographical research	MC OC	5	The concept of “geographic information system” in geography and its connection with the branches of science and production. Structure and main functions of a geographic information system (GIS). Use of GIS in geographical research. GIS and space method. Space imaging devices and types of filming. Visual and automatic interpretation of Earth remote sensing data. Data analysis and cartographic modeling.	Forecasting methods: mathematical methods and the role of computerization. Distance learning method	PO 4, PO 5, PO 7, PO 9 PO 10	Written
	MMTG 502/2 Environmental management in the context of globalization			The method of distance learning. Case technology. Information technology	PO 7, PO 8, PO 9	Written	
3	MMTG 503/1 Geo-economic aspects of the strategic development of the region	MC OC	5	Economy of the regions of Kazakhstan. Theory and practice of economic-geographical zoning. Investment attractiveness is a mechanism for the development of the regional economy. Alignment of economic development of regions of Kazakhstan. Specialization and diversification - the potential for development of the regional economy. Special economic zones and technology parks of Kazakhstan. Cluster initiatives of Kazakhstan. Supporting domestic producers through import substitution. Brand management is a condition for popularizing goods and services.	General scientific methods: system analysis and synthesis, modeling, formalization, idealization. The method of critical thinking	PO 5, PO 6, PO 8	Written



	MMTG 503/2 Geoecological marketing			The concept and history of the development of geoecological marketing. Analysis of the impact of human activities on the environment. Geoecological marketing is the main element of the policy for the development of production facilities. A retrospective analysis of the development of the green procurement concept. Foreign experience of government green purchases. International agreements and processes in the field of trade in environmental goods and services.	Forecasting methods: mathematical methods. The method of modular technology by M.Zhanpeisova	PO 7, PO 8, PO 10	Written
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GZAT-4 Geographical aspects of management, design and forecasting

Module description: As part of the development of the module, masters study modern methods of creating thematic cartographic products using graphic editors, geoinformation technologies based on various (ground, space) data. They will get acquainted with the issues of territorial management of regions, which is a set of actions for the management of socio-economic processes taking place within the borders of regions of different hierarchical levels, for the purpose of strategic planning for the socio-economic development of the region.

№	Name of subject and code	Cycle/ component	Credits	Subject discription	Teaching methods	LO by EP	Assessment methods
1	GAMD 601/1 Cartographic support of scientific research	MC OC	5	The role of cartography in the development of natural sciences. Classification of geographical maps and their scope. Map symbols. Cartographic modeling of geographical phenomena. Providing cartographic data for physical-geographical and economic-social research. Problems of geoecological mapping and greening of thematic maps. Problems of mapping the service sector.	Special methods: cartographic, balanced, alternative spatial and field. The problematic method by John Dewey and Makhmudov	PO 4, PO 5, PO 7	Written
	GAMD 601/2 Regional development, planning and management			The method of modular technology by M.Zhanpeisova. The method of distance learning. Case technology	PO 4, PO 7, PO 8	Written	



2	GAMD 602/1 Political Geography and Globalization of the Modern World	MC OC	6	Features of the modern political and administrative structure of countries and the world. Theoretical foundations of political geography, the main stages of its development. Current directions of research into territorial-political systems at various levels. Methodology and techniques for analyzing state territory and its morphological features, types and functions of borders and administrative-territorial divisions. Basic geopolitical concepts of world development, directions of transformation of the geopolitical structure of the world at different stages of development, changes in the geopolitical position of individual countries. Political and geographical structure of macroregions of the world, genesis and features of regional conflicts, ways of their resolution and forms of international cooperation.	Forecasting methods: mathematical methods and the role of computerization	PO 6, PO 7, PO 9	Written
	GAMD 602/2 Geographical problems of management and forecast in environmental management			The main goals and objectives of management and forecasting in environmental management. Scientific substantiation of the problems of limiting the harmful effects of production and other activities on the natural environment, ensuring the effective use, protection and reproduction of natural resources. Mechanisms for organizing and monitoring compliance with rules, requirements, and environmental management standards. Development of legal provisions, economic incentives, establishment of environmental, economic measures, planning of mechanisms for their financing and supervision of implementation on a scientific basis. Basic management methods in environmental management: forecasts, programs, planning and design. Creating conditions for a favorable natural environment for human life and health.	The method of distance learning. Case technology. Information technology	PO 5, PO 7, PO 9	Written



AZGGP-5 Modern geoecological and geoeconomic problems of mankind							
<i>Module description:</i> In the process of mastering the module, masters develop the skills of monitoring geosystems using bibliographic and statistical data and compiling cartographic models. The skills of forecasting the upcoming geo-ecological and geo-economic situations in the countries of the world are being formed, comparing their rates of indicators of the use of natural resources and the economic policy of their development.							
№	Name of subject and code	Cycle/ component	Credits	Subject discription	Teaching methods	LO by EP	Assessment methods
1	MGGPM 601/1 Geoecology and environmental geography	MC OC	6	Ecological patterns, their historical origin. Regional aspects of the formation of global ecosystems in modern conditions. The main causes of global environmental problems. Problems of preserving the Earth's biological diversity. Administrative methods of management in the field of environmental management. Forecasting the development of the environmental situation in the regions of Kazakhstan.	Reproductive, demonstration method. The problematic method by John Dewey and Makhmudov	PO 9	Written
	MGGPM 601/2 Conservation questions in oil-extracting regions of Kazakhstan			Environmental studies in the oil regions of Kazakhstan. Resource potential and state of development of oil-producing territories in Kazakhstan. Ecological and geographical assessment of the impact of petroleum products on the environment. Issues of geoecological zoning of oil-producing regions. Problems of conservation of biological diversity and protection of water and land resources.	General scientific methods: system analysis and synthesis. Information technology	PO 7, PO 9, PO 10	Written
2	MGGPM 602/1 World economy and international relations	MC OC	6	Geography of the world economy: basic concepts, subjects, relationships. International division of labor. International economic integration. Structure of international trade. Basic forms of international economic relations. Features of the economy of developed and developing countries. The role of Kazakhstan in the system of international relations. Global problems of the world economy and directions for their joint solution.	General scientific methods: system analysis and synthesis. The method of modular technology by M.Zhanpeisova	PO 6, PO 9	Written



	MGGPM 602/2 Geography of a water management of RK			State water cadastre and tasks. Use of water resources, water use catalogues. Annual data and long-term characteristics of water resources use. Water resources of Kazakhstan. Water resources of the main rivers of the Republic of Kazakhstan and their regime characteristics. Main water management regions of Kazakhstan. Groundwater resources of the Republic of Kazakhstan. Water supply of water chemistry in Kazakhstan. Irrigation design. Environmental problems of water resources.	The method of distance learning. The method of critical thinking	PO 7, PO 8, PO 9	Written
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RW-6 Research work

Module description: Research work is considered an important component of master's education in the field of geography and includes various stages and activities that contribute to the academic and professional growth of masters. Through teaching practice, research practice, internships and the defense of a master's thesis, graduate students gain valuable experience in teaching, research and practical application of their knowledge. The application of research methods and the search for academic publications will further strengthen their research skills and strengthen their participation in the academic community.

№	Name of subject and code	Cycle/ component	Credits	Subject disruption	Teaching methods	LO by EP	Assessment methods
1	RW 6.01 Pedagogical practice	CC UC	4	Studying the basics of pedagogical and educational-methodical work in higher educational institutions, mastering the skills of conducting certain types of training sessions in the disciplines of the department. Acquisition of experience of pedagogical work in the conditions of a higher educational institution.	Educational process	-	Report
2	RW 5.02 Research practice	MC UC	3	Research practice is aimed at the formation of theoretical, research, methodological and practical skills among masters, which allow them to independently test the theoretical and methodological knowledge obtained in practice. Research practice is a type of training sessions that are directly focused on the research training of students.	Practical work	-	Report
3	RW 6.02 Research practice	MC UC	7	Research practice is aimed at the formation of theoretical, research, methodological and practical	Practical work	-	Report



					skills among masters, which allow them to independently test the theoretical and methodological knowledge obtained in practice. Research practice is a type of training sessions that are directly focused on the research training of students.			
4	RW 5.03 Undergraduate research work, including internships and the implementation of a Master's thesis (MSRW)	MSRW	1	2	Research work is being carried out aimed at developing the ability of masters to make independent theoretical and practical conclusions. The skills of objective evaluation of scientific information, the ability to integrate interdisciplinary knowledge into free scientific research are being formed. Examines the ways of applying scientific knowledge in educational activities, discusses them in the scientific environment.	Practical work	-	Report
	RW 5.04 Method of scientific research		1		The course examines the basic concepts of research work, scientific methods of research, the validity of the choice of a group of methods used in conducting various scientific research, general scientific, formal-logical, interdisciplinary research methods related to the subject area of research, the main issues of research practice. In the course of research work, skills are formed in the application of research methods related to the subject area of research, and methods for assessing the reliability of the results of research work and its effectiveness.	Practical work	-	Report
5	RW 5.03 Undergraduate research work, including internships and the implementation of a Master's thesis (MSRW)	MSRW	2	4	Research work is being carried out aimed at developing the ability of masters to make independent theoretical and practical conclusions. The skills of objective evaluation of scientific information, the ability to integrate interdisciplinary knowledge into free scientific research are being formed. Examines the ways of applying scientific	Practical work	-	Report



					knowledge in educational activities, discusses them in the scientific environment.			
	RW 5.05 Academic writing		2		In the process of mastering the discipline, masters develop competencies in the organization of scientific texts. They develop skills in creating, editing, referencing and systematizing all types of texts of scientific and journalistic style. The possibilities of using the studied language tools in communicative and professional activities for speaking at international conferences, writing articles in English with subsequent publication, conducting business negotiations with foreign partners, managers, masters, etc. are expanding.	Practical work	-	Report
6	RW 6.03 Undergraduate research work, including internships and the implementation of a Master's thesis (MSRW)	MSRW	3	7	Research work is being carried out aimed at developing the ability of masters to make independent theoretical and practical conclusions. The skills of objective evaluation of scientific information, the ability to integrate interdisciplinary knowledge into free scientific research are being formed. Examines the ways of applying scientific knowledge in educational activities, discusses them in the scientific environment.	Practical work	-	Report
	RW 6.04 Method of scientific research		4		The course examines the basic concepts of research work, scientific methods of research, the validity of the choice of a group of methods used in conducting various scientific research, general scientific, formal-logical, interdisciplinary research methods related to the subject area of research, the main issues of research practice. In the course of research work, skills are formed in the application of research methods related to the subject area of research, and methods for assessing the reliability of the results of research work and its effectiveness.	Practical work	-	Report



NJSC «KAZAKH NATIONAL WOMEN TEACHER TRAINING UNIVERSITY»
Institute Natural Sciences

7	RW 6.03 Undergraduate research work, including internships and the implementation of a Master's thesis (MSRW)	MSRW	11	Research work is being carried out aimed at developing the ability of masters to make independent theoretical and practical conclusions. The skills of objective evaluation of scientific information, the ability to integrate interdisciplinary knowledge into free scientific research are being formed. Examines the ways of applying scientific knowledge in educational activities, discusses them in the scientific environment.	Practical work	-	Report
8	Final attestation	FC	8	Registration and defense of the Master's thesis	Completion of the dissertation, registration	-	Thesis defense



3. RESOURCE SUPPLY OF THE EDUCATIONAL PROGRAM

3.1. LIBRARY FUND

One of the important indicators of the quality of personnel training in the educational program is the provision of masters with educational, teaching, scientific, reference, fiction and periodicals.

The library fund for OP 7M01506-Geography as of May 1, 2021 is 58,868 copies, including 2,785 copies in the state language, 2107 copies in Russian.

The University Library provides students and teaching staff with access to databases: IPR books, Polpred, Alembook, Web of Science, Elsevier (Scopus).

Access to the Republican Interuniversity electronic library (RMEB), which combines electronic educational and scientific resources of universities of the Republic of Kazakhstan, has been provided.

Masters of the educational program are provided with access to scientific journals on the profile of the educational program.

Since 2010, the library has been providing an opportunity for KAZNWTTU students to familiarize themselves with the content of master's theses in the traditional format (more than 150 titles), half of which, to date, have been translated into PDF format.

Also, masters can use the "KAZNWTTU Electronic Library" service, which provides access to the electronic library from a computer from anywhere in the world in 24/7 format (website address: lib.kazmkpu.kz). There are about 10,000 units of full-text sources, more than 1,000 units of licensed books, 6676 units scanned by library staff, and about 300 units of books belong to the sources of the rare fund in the database of the elector library.

3.2. TEACHERS STAFFING

The educational program is implemented by the Department of Geography. Quantitative and qualitative indicators of teaching staff serving the educational program (disciplines of the basic and profiling cycles):

The total number of teaching staff is 11 people, including:

Doctors of Sciences –

Candidates of Sciences – 4

Doctors Ph.D – 1

Masters – 6

The degree of OP – 50%.

The qualification characteristics of the teaching staff of the educational program are reflected in the Personnel Directory.

3.3. MATERIAL AND TECHNICAL BASE

Laboratory studies, classes, experiments, analyses, experiments for scientific and industrial purposes are carried out in a specially designated laboratory room. All laboratory classrooms are equipped and equipped with modern equipment. All laboratory classrooms of the Department of Geography meet the requirements of curricula and programs to conduct laboratory and practical and research work.

Consider the material security of the educational program:

Auditorium No. 311 lecture geoinformation systems, 64 m². 11 computers, 1 equipped with an interactive whiteboard, 14 desks, 28 seats, 11 computer desks, 11 seats.

Auditorium No. 313 lecture hall of economic and social geography, 64 m², 6 desks equipped with 1 computer, 1 interactive whiteboard 12 seats, 1 teacher's seat.

Auditorium No. 314 lecture hall named after K. G. N., Professor B. A. Birmagambetov. 54.64 m². 18 desks, 36 seats, 1 teacher's seat.



Auditorium No. 317 lecture methodology of teaching geography, 64 m². Equipped with 1 computer, 1 interactive whiteboard, 17 desks, 32 seats, 1 teacher's seat.

Auditorium No. 319 lecture hall of local history and recreational geography, 64 m², 1 TV, 1 interactive whiteboard, 1 computer, 15 desks, 30 seats, 1 teacher's seat.

Lecture hall No. 320 is a Physical and geographical lecture hall. 16.38 m², equipped with 1 computer, 1 interactive whiteboard, 9 desks, 18 seats, 1 teacher's seat.

Practice bases:

1) "Institute of Geography and water security" of the Ministry of Science and Higher Education of the Republic of Kazakhstan.

2) LLP "Kazakh Research Institute of Soil Science and Agrochemistry named after U.U. Uspanov".

4. LONG-TERM PLAN FOR THE DEVELOPMENT OF THE EDUCATIONAL PROGRAM

	Content of the event	Implementation period	Responsible
Educational and Methodological Direction			
1	Development of syllables, educational and methodological complexes of disciplines	August 2023	Teaching staff of the Department of Geography
2	Preparation of textbooks and teaching aids	during a year	E. Tulegenov, T. Ashimov, K.N. Mamirova, N.N. Karmenova, K.A. Tleubergenova
3	Conducting methodological seminars	during a year	N.N. Karmenova
4	Preparation of basic educational programs accredited in academic year: preparation of explanatory notes and other structural components of the EP.	during a year	E. Tulegenov
Research Direction			
5	Activation of the activity of applying for grants for scientific research	during a year	Teaching staff of the Department of Geography
6	Activation of the activities of the teachers of the department in the preparation of publications indexed in SCOPUS, Web of Science	during a year	Teaching staff of the Department of Geography
7	Organization of a scientific and professional seminar for teachers, masters and doctoral students.	during a year	Teaching staff of the Department of Geography
8	Form an information database of scientific achievements and scientific potential of the teachers of the department	during a year	Teaching staff of the Department of Geography
Educational direction			
9	Formation of active citizenship, social responsibility, a sense of patriotism, high	during a year	Teaching staff of the Department of Geography



	moral and leadership qualities among the masters of the Geography Department.		
10	Implementation of a set of measures for patriotic education and the formation of civic engagement, social responsibility and mechanisms for unlocking the potential of students	during a year	Teaching staff of the Department of Geography
11	Participation in conferences, seminars and other events related to extracurricular activities and youth policy conducted by external organizations	during a year	Teaching staff of the Department of Geography
Advanced training			
12	Conducting seminars and advanced training courses	during a year	Teaching staff of the Department of Geography
13	Organization and completion of advanced training courses for all teaching staff	during a year	Teaching staff of the Department of Geography
14	Exchange of academic experience with foreign and domestic scientists	during a year	Teaching staff of the Department of Geography
Career Guidance			
15	Involvement of employers, graduates and students in the formation of educational programs	during a year	Teaching staff of the Department of Geography
16	Provision of educational programs with updated elective disciplines, taking into account the proposals of employers, graduates and students	during a year	Teaching staff of the Department of Geography
17	Constant study of the innovative experience of other universities in the development of career guidance, educational programs and cooperation with employers in the employment of graduates	during a year	Teaching staff of the Department of Geography
18	Holding an Open Day with the involvement of members of the Alumni Association	during a year	Department of International Cooperation, teaching staff of the Department of Geography