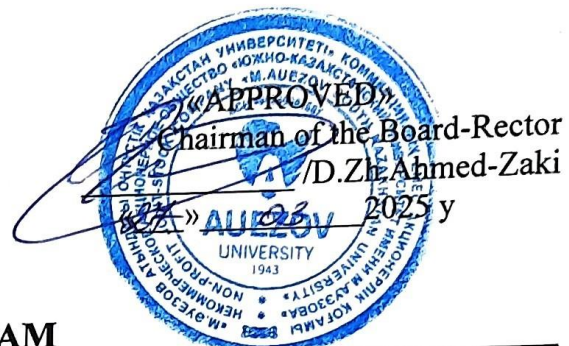


MINISTRY OF SCIENCES AND HIGHER EDUCATION OF THE REPUBLIC OF
KAZAKHSTAN
M.O.Auezov SOUTH KAZAKHSTAN UNIVERSITY



EDUCATIONAL PROGRAM

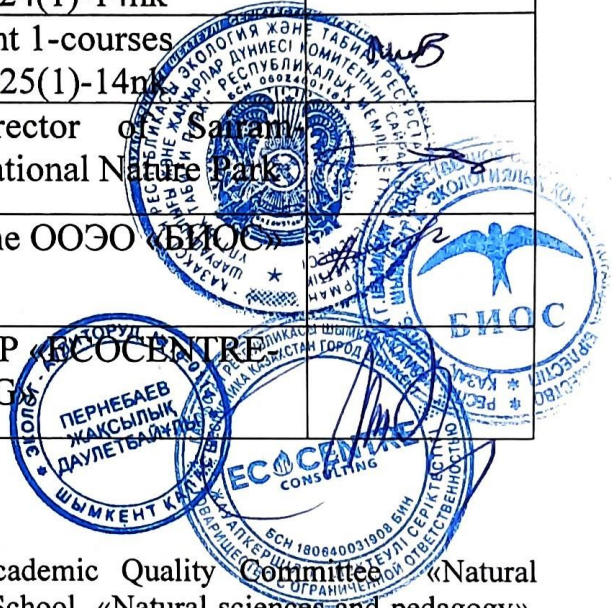
7M05220 - Geography

Registration number	7M015200065
Code and Classification of Education	7M05 - Natural sciences, mathematics and statistics
Code and Classification of Areas of Training	7M052 - Environment
Group of educational programs (EP)	M084 - Geography
Type of EP	-
ISCE level	7
NQF level	7
IQF level	7
Language learning	kazakh, russian
The complexity of the EP	120 credits
Distinctive features of EP	-
Partner University (JEP) -	-
University partner (DDEP) -	-

Shymkent, 2025.

Developers:

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The EP was considered at a meeting of the Academic Quality Committee «Natural sciences, mathematics and statistics» or the Higher School «Natural sciences and pedagogy», Minutes № 6 «17» 03 2025 y.

Chairman of the Committee Tursynbayev A.Z.

The EP was considered and recommended for approval at Educational-methodical meeting of M.Auezov SKU
Minutes # 4 18.03 2025 y.

Chairman of the EMM E.Imangaliyev

The EP was approved by the decision of the Academic Council of the University
Minutes # 10 «07» 03 2025 y.

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1 Concept of the Educational program

Mission of the University	Generating new competencies, training a leader who translates research thinking and culture.
University Values	<ul style="list-style-type: none"> – Openness - open to change, innovation and cooperation. – Creativity - generates ideas, develops them and turns them into values – Academic freedom - free to choose, develop and act. – Partnership - creates trust and support in a relationship where everyone wins. – Social responsibility - ready to fulfill obligations, make decisions and be responsible for their results.
Graduate Model	<ul style="list-style-type: none"> – Deep subject knowledge, their application and continuous expansion in professional activity – Information and digital literacy and mobility – Research skills, creativity and emotional intelligence – Entrepreneurship, independence and responsibility for their activities and well-being – Global and national citizenship, tolerance to cultures and languages
Uniqueness of the EP	<p>Orientation to the regional labour market and social order by shaping the graduate's professional competences adjusted to the stakeholder's requirements.</p> <p>Practical orientation and emphasis on the development of critical thinking and entrepreneurial skills, forming a wide range of skills that will enable to be functionally literate and competitive in any life situation and to be in demand in the labour market.</p>
Academic Integrity and Ethics Policy	<p>The university has taken measures to maintain academic integrity and academic freedom, protection from any type of intolerance and discrimination:</p> <ul style="list-style-type: none"> • Rules of academic integrity (order №212 of October 10, 2022); • Anti-corruption standard (order №8 n/a dated 08/01/2025). •• Code of Ethics (Order №212 of October 10, 2022)
Regulatory and legal framework for the development of EP	<ol style="list-style-type: none"> 1.Law of the Republic of Kazakhstan «On Education»; 2.«Model Rules for the Activities of Organisations of Higher and Postgraduate Education», approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 30, 2018 №595 as reworded by order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated June 24, 2024. №307; 3.Standard rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education, approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 31, 2018 №600 as reworded by order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated July 26, 2024. №372; 4.State mandatory standards for higher and postgraduate education, approved by order of the Ministry of Education and Science of July 20, 2022 №2 as reworded by order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated March 04, 2025. №90; 5.Rules for organizing the educational process in credit technology of

	<p>education, approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011, №152 as reworded by order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated April 29, 2024. №203;</p> <p>6. Qualification reference book for positions of managers, specialists and other employees, approved by order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated December 30, 2020 №553 as reworded by order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated June 20, 2024. №207;</p> <p>7. Methodological recommendations for introducing ECTS principles into the educational process and expanding academic freedom. Appendix to the order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated February 12, 2024. №57</p> <p>8. Guidelines for the development of educational programs for higher and postgraduate education, Appendix 1 to the order of the Director of the National Center for the Development of Higher Education of the Ministry of Education and Science of the Republic of Kazakhstan dated May 4, 2023 № 601.</p> <p>9. SGESE HPGE. Order № 90 of the Minister of Science and Higher Education of the Republic of Kazakhstan dated March 4, 2025 y.</p>
<p>Organisation of the educational process</p>	<ul style="list-style-type: none"> – Implementation of the principles of the Bologna Process – Student-centered learning – Availability Inclusivity
<p>Quality assurance of EP</p>	<ul style="list-style-type: none"> – Internal quality assurance system – Involvement of stakeholders in the development of the EP and its evaluation – Systematic monitoring Updating the content (updating)
<p>Requirements for applicants</p>	<p>They are established in accordance with the Standard Rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education by order of the Ministry of Education and Science of the Republic of Kazakhstan №600 as reworded by order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated July 26, 2024. №372.</p>
<p>Conditions for the implementation of educational programs (EP) for persons with disabilities and special educational needs (SSN)</p>	<p>For students with SEN (special educational needs) and persons with disabilities (PSI), tactile PVC tiles, specially equipped toilets, a mnemonic diagram, and shower bars have been installed in educational buildings and student dormitories. Special parking spaces have been created. Crawler lift installed. There are desks for people with limited mobility (PLM), signs indicating the direction of movement, ramps. In the educational buildings (main building, building № 8) there are 2 rooms with six working places adapted for users with disorders of the musculoskeletal system (DMS). For visually impaired users, the SARA™ CE Machine (2 pcs.) is available for scanning and reading books. The library website is adapted for the visually impaired. There is a special NVDA audio program with a service. The JIC website http://lib.ukgu.kz/ is open 24/7.</p> <p>An individual differentiated approach is provided for all types of classes and in the organization of the educational process.</p>

2.Passport of the Educational program

Purpose of the EP	Preparation of highly qualified masters with in-depth scientific and pedagogical knowledge, able to plan and carry out scientific, pedagogical and production activities in various branches of geography.
Tasks of the EP	<p>1.In-depth development of theoretical, practical and individual training in the chosen field of geographical science and pedagogical activity, focused on modern scientific approaches and requirements of the professional environment.</p> <p>2.The formation of a scientific type of thinking and a holistic worldview based on critical analysis, interdisciplinarity and understanding of global geographical processes.</p> <p>3.Mastering the basics of research and experimental methods of observation and analysis of geographical processes and phenomena;</p> <p>4.Mastering and applying in practice innovative technologies for studying geographical patterns;</p> <p>5.Expansion of knowledge on applied and theoretical directions of geographical science.</p> <p>6. Creating conditions for the formation of in-demand knowledge and skills, a conscious attitude towards improving the well-being of the population and protecting the planet in the context of the SDGs</p> <p>7.Formation of entrepreneurial and project competencies that ensure the ability to develop and implement innovative projects in the field of geography, education and sustainable development, including participation in grant and research activities.</p>
Harmonisation of the EP	<ul style="list-style-type: none"> • 7 level of the National Qualifications Framework of the Republic of Kazakhstan; • Dublin descriptors of the 6th level of qualification; • 21 cycle of a Framework for Qualification of the European Higher Education Area); • 7th Level of European Qualification Framework for Life long Learning).
Connection of EP with the professional sphere	<p>Sectoral Qualifications Framework Education, approved by Minutes №2 of the meeting of the Sectoral Tripartite Commission on Social Partnership and Regulation of Social and Labour Relations under the Ministry of Education and Science of the Republic of Kazakhstan, dated 23 November 2016.</p> <p>Professional standard «Teacher» (order of the acting Ministry of Education of the Republic of Kazakhstan dated February 24, 2025 №31)</p> <p>- professional standard for teachers (teaching staff) of higher and (or) postgraduate education organizations (Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated November 20, 2023 №591).</p>
Name of the degree awarded	After successful completion of this educational program, the graduate is awarded the degree: Master of Education «7M05220-Geography» of the educational program.

List of qualifications and positions	Masters may hold positions in special and higher educational institutions without any work experience requirements in accordance with the qualification requirements of the Qualification Handbook of Positions of Managers, Specialists and Other Employees, approved by Order №513 of the Minister of Labour and Social Protection of the Republic of Kazakhstan dated 30 December 2020.
Field of professional activity	The area of professional activity is public administration bodies related to the organisation of research, design, production, control and examination, administrative and pedagogical activities.
Objects of professional activity	- Design, survey, research institutes, tourism firms, nature conservation and environmental management bodies of the Ministry of Environmental Protection (MEP), specialised and higher education institutions.
Subjects of professional activity	-Theoretical and methodological foundations of physical and economic-social geography; -Planning, organization and implementation of scientific and pedagogical activities; -Expertise of natural, natural-anthropogenic, economic and territorial-industrial systems at regional and local levels; - Definition of geographical bases and ecological criteria of interaction between the society and the nature;
Types of professional activity	Research and development; design and production activities; expert and analytical activity; organisational and managerial; tourism and recreation; educational (pedagogical). Research and diagnosis of problems, forecasts, goals and situations in the sphere of scientific and pedagogical activity; Innovative activities in the field of science and education
Learning outcomes	LO1.. Analyze ideological and methodological problems in the field of natural sciences, various facts and phenomena on the basis of a unified systematic scientific worldview using the provisions and categories of the philosophy of science. LO2. Demonstrate proficiency in a foreign language in interpersonal communication and professional activity. LO3.. Evaluate the development and formation of personnel in the organization, possess socio-psychological technologies for managing mass behavior. LO4.. Apply effective teaching methods and artificial intelligence in the field of geography, critically evaluate the scientific organization of the work of a higher school teacher LO5.. Apply geographical research activities to solve regional and global geocological problems using physical and geographical methods. LO6. To apply artificial intelligence and environmental expertise in the analysis, geographical research and expertise of natural, man-made, socio-economic and territorial production systems at the regional and global levels. LO7. To substantiate and solve modern problems of geographical research that form a variety of natural and man-made processes in a reasoned manner.

	LO8. Possess and apply methods of geographical cognition and planning technologies for solving fundamental professional tasks in the field of scientific geographical research, substantiate research results.
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3. Competencies of a graduate of the EP

GENERAL COMPETENCIES (SOFTSKILLS). Behavioral skills and personal qualities	
GC 1. Competence in managing one's literacy	<p>GC 1.1. The ability to self-study, continuous professional development and knowledge renewal within the framework of an individual educational trajectory and interdisciplinary interaction.</p> <p>GC 1.2. The ability to express thoughts, emotions, facts and professional judgments in oral and written forms clearly and argumentatively.</p> <p>GC 1.3. The ability to be mobile in a rapidly changing world, as well as critically analyze information and situations to make informed decisions.</p>
GC 2. Language competence	<p>GC2.1. The ability to build communication programmes in the state language, in Russian and in a foreign language.</p> <p>GC2.2. Ability for interpersonal social and professional communication in an intercultural environment.</p>
GC 3. Mathematical competence and competence in the field of science	<p>GC3.1: Ability and readiness to apply the educational potential, experience and personal qualities acquired during the study of mathematics, natural science and technical disciplines in higher education to solve professional problems.</p>
GC 4. Digital competence, technological literacy	<p>GC 4.1. The ability to demonstrate and develop information literacy through the development and application of modern information and communication technologies in all spheres of life and professional activity.</p> <p>GC 4.2. The ability to effectively use various types of information and communication technologies, including Internet resources, cloud and mobile services, to search, store, protect and disseminate information</p>
GC 5. Personal, social and educational competencies	<p>GC5.1.1. Ability to develop physical self-improvement and a healthy lifestyle orientation to ensure full social and professional activity through the methods and means of physical education.</p> <p>GC5.2. The ability to develop social and cultural skills on the basis of civic and moral awareness.</p> <p>GC5.3 The ability to build a personal lifelong learning trajectory for self-development, career development and professional success.</p> <p>GC5.4 The ability to interact successfully in a variety of socio-cultural contexts during study, work, home and leisure activities.</p>
GC 6. Entrepreneurial competence	<p>GC6.1 The ability to be creative and entrepreneurial in a variety of environments.</p> <p>GC6.2 The ability to work under uncertainty and rapidly changing conditions, to make decisions, to allocate resources and to manage one's time.</p> <p>GC6.3. Ability to work with consumer requests.</p>

GC 7. Cultural awareness and self-expression	GC7.1. The ability to demonstrate a world outlook, civic and moral attitude. GC7.2 The ability to be tolerant of the traditions and cultures of other peoples of the world, with high spiritual qualities.
PROFESSIONAL COMPETENCIES (HARDSKILLS). Theoretical knowledge and practical skills specific to this field	

PC1 Research and development	The ability to use digital tools to organize and conduct research activities.
PC 2. Organisational and managerial;	The ability to apply modern knowledge and artificial intelligence in organizational and managerial work in the field of education and science;
PC3. Project and production	Ability to apply modern methods of processing and interpreting geographical information in applied research;
PC4 Administrative and pedagogical	The ability to compile final documents based on the results of an industrial or scientific assignment. The ability to teach geography subjects at a university using modern educational and scientific approaches.
PC5 Innovative	- the ability to use innovative solutions and artificial intelligence in the development of new technologies; - the ability to assess innovative commercial risks when implementing new solutions in the field of technology development for various fields of activity; - The ability to develop plans and programs based on artificial intelligence technologies for organizing innovative activities of research teams.

**3.1 Matrix of correlation of the learning outcomes of the educational program
as a whole with the competences formed**

	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8
GC 1	+	+				+	+	
GC 2	+		+		+			+
GC 3				+	+	+	+	
GC 4				+				+
GC 5		+	+					
GC 6			+	+	+			
GC 7		+	+					
PC1	+					+	+	
PC2				+				+
PC3			+			+	+	
PC4				+	+		+	+
PC5	+		+		+			+

4. Matrix of influence of modules and disciplines on the formation of learning outcomes and information on labor intensity

module	Cycle	Component	Name of the discipline	Brief description of the discipline	Quantity loans	Formative learning outcomes (codes)									
						LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8		
Cycle of basic disciplines															
The university component															
Scientific and Pedagogical Training	BD	HsC	History and Philosophy of Science/	<p>The aim of the discipline: The study of the phenomenon of science as a subject of special philosophical analysis, the regularities and trends of the special activity of producing scientific knowledge, taken in a socio-cultural context.</p> <p>Content: Identification of the specificity and interrelation of the main problems of the history and philosophy of science. Studying the regularities of the development of science and the structure of scientific knowledge, methods of scientific research. Knowledge of the main concepts and trends of the non-classical and post-non-classical stage of science development. Analysis of realities of modern theory and practice on the basis of comprehension of methodology of natural-science, socio-humanitarian and technical knowledge.</p>	4	✓									

				Critical thinking as a prerequisite for development and functioning of modern society. Techniques for developing critical thinking: consideration and study of the logic of arguments. Formation of critical reflective thinking and metacognitive abilities.										
BD	HsC	Foreign Language (Professional)	<p>The aim of the discipline: Systematic deepening of communicative competence within the framework of international standards of foreign language education on the basis of further development of skills and abilities of active language use in professional activities.</p> <p>Content: B2, C1 levels are presented as pragma-professional orientation for professional and academic purposes at advanced level: scientific information base, interpretation of scientific information, argumentation, persuasion, scientific controversy, academic writing. Use of innovative methods and technologies, involvement of modern means, Internet resources.</p>	4		✓								
BD	HsC	Psychology of Management	<p>The aim of the discipline: To acquire knowledge of psychological management and to develop skills in the management of human resources of the organisation.</p> <p>Content: The development of psychological theories of management. Psychological characterisation of</p>	3			✓							

			<p>personnel. Psychology of employee motivation. Technologies of management of human resources of an organization. Psychological support of human resources policy of an organization. Psychology of conflict in the organization. Technologies of prevention of professional deformation of personality. Practical implementation in the form of creating diagnostic tools, development of digital methods of management training, management consulting.</p>										
BD	HsC	Higher School Pedagogy and Psychology	<p>The purpose of the course is to develop undergraduates' skills and abilities to effectively organize professional and pedagogical activities at a university based on modern psychological and pedagogical knowledge.</p> <p>Course content: Modern paradigms of higher education. History, trends and strategies of higher education development in Kazakhstan. The subject, tasks, and categories of higher school pedagogy and psychology. Methodological foundations of higher school pedagogy and psychology. Professional competence of a university teacher. The communicative competencies of a university teacher. Higher school didactics. Psychological features of student age. The university learning process and its patterns. The</p>	5				✓					

				content of education at the university. Forms of organization of the educational process at the university. Technologies of organization and implementation of the educational process at the university. Features of the credit training system. Methods and methods of teaching.									
Module Methodical Basics of Teaching	PD	HsC	Teaching Methods of Special Disciplines	<p>The aim of the discipline: Formation of professional-pedagogical competence and methodological preparation of Master students for future pedagogical activity in the new socio-economic conditions.</p> <p>Content: Peculiarities of the construction of objectives, content, application of modern methods, methodologies and organisational forms of teaching core disciplines. Methods of organizing and conducting classes based on artificial intelligence. Development of course programs and methodological support for specialized disciplines. The methodology of using artificial intelligence in the organization and conduct of control and quality of education in special disciplines conducted at the University. The introduction of new methods in the field of forecasting natural phenomena and patterns, data analysis and cartography based on artificial intelligence in the teaching of professional disciplines.</p>	5				✓				✓

			Pedagogical Practice	<p>The aim of the discipline: To master the pedagogical skills, to develop the skills of independent teaching and educational activities in higher education.</p> <p>Content: Study of the teaching experience of the leading teachers of the university. Independent teaching sessions, supervision of students' research work. To apply the skills of collecting and accumulating empirical material, structuring, systematising knowledge and presenting it in different ways. To improve the skills of public speaking and presentation of reporting documentation.</p>	4			✓	✓				
Cycle of basic disciplines/ Optional component													
	BD	EC	Geodynamic Processes and Natural Disasters	<p>The aim of the discipline: The purpose of the discipline: the formation of undergraduates' knowledge about geodynamic processes, methods of forecasting, modeling their consequences and the definition of protective measures.</p> <p>Content: Geodynamic processes and their consequences. Methods of forecasting and modeling geodynamic processes. Preventive protective measures and methods of protection. Natural disasters. Prevention and elimination of consequences of emergency situations. Global threats and emergencies on Earth. Agro-climatic</p>	4					✓		✓	

Module Scientific and Natural				hazards and risks. Methods for determining the intensity of various hazardous processes.									
	BD	EC	Political Geography and Globalization of Modern World	<p>The aim of the discipline: formation of knowledge of political geography and the main problems of the development of geopolitical processes in the modern world.</p> <p>Content: problems of globalization of the modern world and forms of the structure of political geography. Political geography and the main problems of the development of geopolitical processes. Geopolitical and geographical aspects of economic integration. International and foreign economic relations in modern politics. The driving forces of globalization, the political and geographical "dimension" of global problems.</p>	4						✓		✓
	BD	EC	Scientific and theoretical basics of Study of the Sacred geography of the Turkestan region	<p>The aim of the discipline: is to conduct research based on the definition of the scientific and theoretical foundations of the geography of sacred sites in the Turkestan region and to conduct an examination of the level of study.</p> <p>Contents: sacred places of the Turkestan region. The program "Rukhani zhangyru: Bolashakka bagdar" and the sacred geography of the region. The importance of the geography of sacred sites in education and upbringing. Scientific and theoretical foundations of</p>	6						✓		✓

				the study of sacred sites. Holy places as a means of forming the national identity of the state. Scientific determination of the status of sacred sites of the Turkestan region at the international, national and local levels.									
	BD	EC	Recreational resources and geography of tourism of the Republic of Kazakhstan	The aim of the discipline: formation of knowledge about the development and rational use of recreational resources and prospects for the development of tourism in the Republic of Kazakhstan. Content: Recreational resources of the Republic of Kazakhstan and potential. The level of development of recreational resources and methods of rational use. The economic importance of aspects of tourism development. Opportunities and prospects for tourism development, attracting investment.	6					✓	✓		
Module Geographic Patterps	BD	EC	Climate Change and Modern Problems of Desertification	The aim of the discipline: mastering theoretical knowledge about modern problems of desertification in connection with climate change. Content: Identification and analysis of the problems of global warming and climate change based on artificial intelligence. Environmental pollution analysis using artificial intelligence. Analysis of the problem of desertification, the rate of desertification under the influence of natural and anthropogenic factors.	5						✓	✓	
	BD	EC	Soil Erosion and	The aim of the discipline: formation of knowledge about the occurrence of	5						✓	✓	

			Degradation	<p>erosion and degradation processes and ways to restore them.</p> <p>Contents: Characteristic features of erosion and degradation. The processes of erosion degradation of soils, the cause of their occurrence and development. Soil protection measures, basic research methods. Theoretical foundations of erosion-accumulative processes. Ecological and economic aspects of soil protection from erosion and deflation. Solving practical tasks for the ecologically balanced use of eroded and erosive lands.</p>									
Cycle of basic disciplines/													
Optional component													
Module Geographic Patterns	PD	EC	Water Resources and Water Security of Kazakhstan	<p>The purpose of the discipline: the formation of knowledge about the water resources of Kazakhstan and methods of forecasting water safety and determining protective measures.</p> <p>Contents: water resources of the Republic of Kazakhstan: distribution and level features of rivers, lakes, glaciers and groundwater. The dependence of water reserves on climatic factors, the ratio of heat and moisture entering the Earth's surface. Ideas about current trends in the use of water resources in Kazakhstan. Modern regulatory and legal frameworks in the field of water use and protection. Solving practical problems of efficient use of water resources. Methods of</p>	4							✓	✓

			qualitative and quantitative assessment of the ecological state of a water resource. Methods of forecasting and modeling the use of water resources. Preventive measures and methods of protection.										
PD	EC	Water Resources and Water Security in Central Asia	<p>The purpose of the discipline is to form knowledge about the water resources of Central Asia and to master the definition of forecasting methods and measures to protect interstate water security.</p> <p>Contents: Geographical distribution and level features of water resources in Central Asia. Views on current trends in the use of water resources in Central Asia. Modern regulatory frameworks and agreements in the field of interstate use and protection of water. Solving practical tasks for the effective use of transboundary water resources. Methods of qualitative and quantitative assessment of the ecological state of a water resource. Methods of forecasting and modeling the use of water resources. Preventive measures and methods of protection.</p>	5						✓			✓
		Research practice	<p>Objective: To consolidate the theoretical knowledge gained and to acquire practical skills and experience to identify and formulate a scientific problem, research it and justify solutions.</p> <p>Content: Organisation of scientific</p>	6				✓	✓				

				research in accordance with the modern methodology of science, observance of the stage and logic of scientific research in accordance with the applied objectives of the Master's project. Develops the ability to experiment and summarise the results of research work in the form of scientific publications, to defend his/her position in discussions and to make decisions of professional nature. It forms research and cognitive competence.									
Module Research Methodology	PD	EC	The use of GIS in geographic researches	The aim of the discipline; providing knowledge about the methods and methodology of using GIS in geographical research. Contents: Theoretical foundations of GIS. The importance of using GIS in geographical research. Analyzing data from GIS systems using artificial intelligence. Methods of geographical research of natural and natural-anthropogenic systems. GIS Programs: MosMap-GIS line, Spatial Manager, ActiveMap GS, GIS 6 Web Edition, GisMapServer, GM Tool Kit, IndorCAD/River, MapInfo MapX. Conducting remote sensing and virtual research based on artificial intelligence.	5					✓	✓		
	PD	EC	Theory and Practice of Geographical Research	The aim of the discipline: formation of theoretical foundations and practical skills in conducting and organizing geographical research. Content. Theory and practice of	5				✓	✓			

			scientific research. Methods of geographical research of natural and natural-anthropogenic systems. General concepts of methods of studying the natural environment and society. Types of research: applied, fundamental, innovative.										
PD	EC	Planning and Organization of Scientific-Researches	<p>The aim of the discipline: development of skills in the development, implementation and provision of research results.</p> <p>Content: Classification of scientific research: fundamental and applied, the essence of scientific research. Forms and methods of research: experimental, methodological, descriptive, experimental-analytical, theoretical and empirical levels of research. Planning, organisation and implementation of research work, stages of scientific research and its processing. Methodological and procedural sections of research.</p>	6	✓	✓			✓				✓
PD	EC	Scientific Project Management	<p>The aim of the discipline: development of organizational planning skills and implementation of research projects.</p> <p>Content: Basic concepts of project management: project management, project success. Project management standards: national and international. Organisational structures of project management. Functional, project-oriented and mixed structures. Assessing project effectiveness. Project planning.</p>	6	✓	✓							✓

				Project cost management. Project control and management. project closure.										
PD	EC	Theoretical and Methodological Problems of Geography	<p>The aim of the discipline: consideration of current problems of modern geography and promising areas of development.</p> <p>Contents: Philosophical and methodological problems of geographical sciences. Theoretical understanding of geography as an integral system of interrelated natural and social disciplines. Modern methodological foundations and problems of geographical science. Approaches to solving the problem of geography theorization: activity, model, cybernetic, system, geositational approaches, the concept of theoretical geography.</p>	6				✓		✓				
PD	EC	Geographical Science in Context of Sustainable	<p>The aim of the discipline: formation of modern geographical representations in the context of sustainable development.</p> <p>Content: Natural and cultural heritage as a fundamental geographical category. Modern geography and the context of sustainable development. A condition for sustainable, ecologically balanced development. Global problems within the framework of the concept of sustainable development of geographical science. The concept of sustainable development and the connection of geographical science.</p>	6				✓		✓				

Module Concept of Sustainable development and modern problems of geographical science	PD	EC	History and Methods of Modern Geomorphology	<p>The aim of the discipline: presentation of objective knowledge about geomorphology and modern directions of its development.</p> <p>Contents: Methodological principles of the study and classification of relief. The founders of geomorphological research. Features of the history of the formation of modern relief. Features of the relief of the rank of morphosculpture. Spatial-temporal analysis in geomorphology. Current trends, system analysis, forecast.</p>	5						✓		✓
	PD	EC	New Concepts for Geomorphical Education Development	<p>The aim of the discipline: providing knowledge about new education reforms and comparing advanced educational reforms.</p> <p>Content: modern reforms and concepts of education. Research of advanced reforms of foreign countries in improving education (Singapore, Sweden, Great Britain, etc.). Methods of analysis, comparison and implementation of best practices in research work.</p>	5				✓	✓			
	PD	EC	Fundamentals of ecology and nature protection	<p>The aim of the discipline: formation of knowledge about environmental problems, nature protection and effective ways to solve them. and providing students with scientific knowledge about the environmental consequences of the anthropogenic process.</p> <p>Contents: Global problems of</p>	5					✓	✓		

			environmental protection (conservation of biodiversity, changes in natural landscapes, urban-demographic problems, anthropogenic climate change, pollution problems). Scientific theories, geographical and social concepts. Innovative technologies, problems of nature protection. Combining theory and practice in the field of environmental protection. Fundamental environmental problems of nature conservation. Regulatory documents of environmental and environmental issues.										
PD	EC	Modern geo-economic and geopolitical processes	The aim of the discipline: Formation of knowledge about modern geopolitical and geo-economic processes. Contents: Geo-economic resources and their main components. Theoretical foundations of geo-economics. Geo-economic framework of the world economy. The world monetary system. International relations and organizations. Geopolitical processes in the modern world. The interrelation of geopolitical and geo-economic processes in the transition to a multipolar world structure.	5							✓		✓
PD	EC	Actual Problems of Economic, Social and Political	The aim of the discipline: providing knowledge about current and current problems of economic, social and political geography. Content: Socio-economic and political problems of the development of macro-	5							✓		✓

		Geography	regions and individual countries. Current global problems of socio-economic and political development. Analysis of the general geographical picture of the world, the main problems of global and regional development.										
PD	EC	Geocological monitoring of the environment	The aim of the discipline: consideration of the main trends in the development of modern geocological monitoring, in solving the environmental problem. Contents: Geographical problems of environmental management and forecasting. Territorial problems of resource management and regions. Environmental problems of the post-industrial world. Global problems of the modern stage of the development of world civilization. The concept of sustainable development of the modern world. Features and sustainable regional development of regional governance.	5					✓		✓		
PD	EC	Modern problems of glaciology	The aim of the discipline: formation of knowledge about the main processes of glaciology and spatio-temporal changes of glaciers in the modern period. Contents: Regularities of ice formation and properties. Classification of natural ice. Types of ice formation. Cryogenic structure of seasonal and permafrost soils. Cryogenic relief. Spatial patterns of the cryolithozone. Fluctuations of glaciers. Modern problems of global and regional glaciology. Glaciological	5						✓	✓		

				zoning.										
	PD	EC	Information and cartographic modeling	<p>The aim of the discipline: formation of knowledge about the main processes of glaciology and spatio-temporal changes of glaciers in the modern period.</p> <p>Contents: Regularities of ice formation and properties. Classification of natural ice. Types of ice formation. Cryogenic structure of seasonal and permafrost soils. Cryogenic relief. Spatial patterns of the cryolithozone. Fluctuations of glaciers. Modern problems of global and regional glaciology. Glaciological zoning.</p>	5							✓	✓	
Module of scientific-research work and Final Certification			Research work of a master student, including passing an internship and completing a master's thesis	To independently research and solve specific scientific problems on the topic of the chosen study. Analysis and use of modern theoretical, methodological and technological achievements of geographical science. To get acquainted with the innovative technologies within the framework of the internship. The use of modern research methods. Conducting an assessment of the reliability of the obtained results and their critical comparison with similar results of domestic and foreign works. Analysis of the obtained results, conclusions and proposals.	24					✓	✓	✓	✓	
			Execution and Defense of Master's Thesis	Examines the basic requirements for Master of Science theses and dissertations. Selects research topics. Work on the research: definition of goals and objectives, subject and object	8	✓	✓			✓	✓	✓	✓	

				of research, formulation of hypothesis, definition of criteria for hypothesis evaluation; definition of methodological basis and research methods, collection and processing of primary information. Publication of articles, abstracts of reports on the research results. Registration of the dissertation work. Preparation of the master's thesis for the defence.										
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5. Summary table reflecting the volume of credits mastered by modules of the educational program

Course of training	Semester	Amount of the mastered modules	Amount of the studied disciplines		Amount of KZ credits					Total in hours	Total KZ credits	Amount	
			University component	Optional component	Theoretical training	Pedagogical Practice	Research Practice	Master Research	Final attestation			exam	dif.credit
1	1	4	5	2	29			1		900	30	6	2
	2	4		4	22	4		4		900	30	4	2
2	3	3		2	11		6	3		600	35	5	2
	4	1		3	16			17	8	600	25	1	1
Total			5	11	78	4	6	24	8	3600	120	16	7

6.Strategies, teaching methods and artificial intelligence, monitoring and assessment

<p>Learning strategies</p>	<p>Student–centered learning: The student is the center of teaching/learning and an active participant in the learning and decision-making process.</p> <p>Practice-oriented training: orientation to the development of practical skills.</p>
<p>Teaching methods</p>	<p>Conducting lectures, seminars, various types of practices with:</p> <ul style="list-style-type: none"> • the use of innovative technologies; • problem-based learning; • case study; • work in a group and creative groups; • discussions and dialogues, intellectual games, olympiads, quizzes; • reflection methods, projects, benchmarking; • Bloom's taxonomies; • presentations; • * rational and creative use of information sources: • * multimedia training programs; • * electronic textbooks; • * digital resources. • * machine learning methods <p>Organization of independent work of students, individual consultations.</p>
<p>Monitoring and evaluation of the achievability of learning outcomes</p>	<p>Current control on each topic of the discipline, control of knowledge in classroom and extracurricular classes (according to syllabus). Assessment forms:</p> <ul style="list-style-type: none"> • survey in the classroom; • testing on the topics of the academic discipline; • control works; • protection of independent creative works; • discussions; • trainings; • colloquiums; • essays, etc. <p>Boundary control at least twice during one academic period within the framework of one academic discipline.</p> <p>Intermediate certification is carried out in accordance with the working curriculum, academic calendar.</p> <p>Forms of conducting:</p> <ul style="list-style-type: none"> • exam in the form of testing; • oral examination; • written exam; • combined exam; • project defense; • protection of practice reports. <p>Final state certification.</p>

7. Educational and resource support for EP

<p>Information Resource Center</p>	<p>The structure of the JRC includes 6 subscriptions, 16 reading rooms, 2 electronic resource centres (ERC). The basis of the network infrastructure of the JRC consists of 180 computers with Internet access, 110 automated workstations, 6 interactive whiteboards, 2 video decks, 1 video conferencing system, 3 A-4 scanners, 3. The JRC software is IRBIS-64 under MSWindows (basic set of 6 modules), a standalone server for uninterrupted work in the IRBIS system.</p> <p>The library collection is reflected in the electronic catalogue, which can be accessed online 24/7 at http://lib.ukgu.kz.</p> <p>Thematic databases of own generation were created: «Almamater», «Proceedings of SKSU scientists», «Electronic Archive». Online access from any device in 24/7 mode via external link http://articles.ukgu.kz/ru/pps.</p> <p>Work with catalogues in electronic form. The EC consists of 9 databases: «Books», «Articles», «Periodicals», «Proceedings of SKU Faculty», «Rare Books», «Electronic Fund», «SKU in Print», «Readers» «SKR».</p> <p>The JRC provides its users with three options for accessing its own electronic information resources: from the «Electronic Catalogue» terminals in the catalogue hall and departments of the JRC; via the university information network for faculties and departments; and remotely on the library's website http://lib.ukgu.kz/.</p> <p>Access to international and national resources is open: «SpringerLink», «Polpred», «Web of Science», «EBSCO», «Epigraph», to electronic versions of scientific journals in open access, «Zan», «RMEB», «Adebiet», Digital Library «Aknurpress», «Smart-Kitar», «Kitar.kz», etc.</p> <p>For people with <i>special needs</i> and disabilities, the JRC adapts the library website for visually impaired users</p>
<p>Material and technical base</p>	<p>Specialised classrooms with an interactive whiteboard - 204, 205, 106,208. Classrooms - 201,203, 301, 303 (building No.7, Baitursynov Street). The Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan for the Turkestan region.</p> <p>Sairam-Ugam State National Nature Park. LLP «ECOCENTRE-CONSULTING».</p>

APPROVAL SHEET

on the Educational program «7M05220 – Geography»

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Director of DASc _____ Nazarbek U.B.

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