

## **SPECIALTY PROGRAMME**

### **Educational programme of the Specialty 6M11600-Geography GraduateLevel (Master of Pedagogical Sciences in Geography)**

#### **Education purposes in the Specialty 6M011600-Geography**

The main purpose of education at specialty 6M011600-Geographyis:

- preparation of highly qualified teaching staff, demanded in the labor market;
- the formation of systematic knowledge in the field of natural sciences and the application of innovative technologies of studying the general laws;
- the formation of key competencies and special masters, with high social and civic responsibility, capable of carrying out a professional activity;
- the development of masters the basics of scientific research and experimental methods of observation and analysis of geographic processes and phenomena;
- the formation of human, social and personal values in the context of scientific thinking and outlook.

#### **1. The list of qualifications and positions**

Graduates of this educational programmeare assigned an academic degree "Master of Pedagogical Sciences" in Geography.

Master of Education may hold positions without requiring an experience in accordance with the Qualification schedule of managers, specialists and other employees, approved by Order of the Minister of Labour and Social Protection of Population of the Republic of Kazakhstan (21 May 2012 № 201) and standard qualification characteristics of positions teaching staff and persons equated to them, approved by order of the Minister of education and science of the Republic of Kazakhstan (13 July 2009 № 338), with amendments (09 June 2011 № 241, 27 December 2013 № 512).

#### **2. Qualifying characteristic of the graduate of the education programme**

##### ***2.1 The scope of professional activities***

Master of Pedagogical Sciences in Geography carries out his professional activity in the field of education. Qualification Level according to National Qualifications Framework (NQF) is – 7.

##### ***2.2 Objects of professional activity***

Objects of professional master's pedagogical sciences of Education in Geography are:

- organization of secondary education of all types, regardless of ownership and subordination;
- organization of technical and vocational education.
- higher education institutions;
- research institutes;
- institutions of training and retraining in the education system;
- authorized and local executive bodies in the field of education.

##### ***2.3 Subject of professional activity***

Subjects of professional activity of Master of Pedagogical Sciences in Geography are:

- organization of training and education of Graduates with innovative psycho-pedagogical methods and tools;

- organization of research activity of Graduates within the educational process of high school;
- activities authorized and local executive bodies to support innovation processes in the management of the educational system.

#### **2.4 Types of professional activity**

Master of Pedagogical Sciences in Geography can perform the following professional activities:

- educational (teaching);
- training and educational;
- training and technology;
- socio-educational;
- research;
- organizational management.

#### **2.5 Functions of professional activity**

The functions of professional activity of Master of Pedagogical Sciences in Geography are:

- training;
- educational;
- vocational guidance;
- research;
- sanitary-hygienic.

#### **2.6 Typical tasks of professional activity**

Typical tasks of professional activity of Master of Pedagogical Sciences in Geography match types of professional activity:

##### **✓ in the field of educational activity:**

- the training and development of Graduates, the organization of teaching and training, design and management of the pedagogical process, diagnostics, correction, forecasting educational performance;
- conducting classes in secondary, technical and vocational schools, institutions of higher education; implementation of methodological knowledge and applied skills in the learning situation;
- study, generalization, dissemination of innovative experience in education.

##### **✓ in the field of educational activity:**

- implementation of educational work in accordance with the laws, laws, principles, educational mechanisms of the pedagogical process;
- planning and implementation of educational work;
- the selection and use of various forms and methods of education and training of Graduates in geography;
- formation of social and ethical values based on public opinion, traditions, customs, social norms and the use of their professional activity;
- compliance with business ethics, mastering ethical and legal standards of conduct;

##### **✓ in the field of educational and technological activities:**

- use in the educational process of innovative educational technologies;
- participation in the organization of the process of searching and processing of geographic information using information and communication

tools and technologies;

- the ability to put into practice the knowledge gained in the field of professional and social-humanitarian disciplines.

✓ *in the field of social and educational activities:*

- creation of an enabling environment and the provision of educational support for the education and development of Graduates;
- the formation of an objective assessment of the level of personal aspirations, standards of business ethics, ethical and legal standards of conduct;
- development of methods of physical, spiritual and intellectual self-development, the formation of psychological literacy, culture of thinking and behavior.

✓ *in the field of scientific research:*

- the study of scientific and methodical literature;
- the study and synthesis of innovative pedagogical experience in geography education;
- conduct educational experiments with the introduction of their results in the educational process;
- carrying out scientific research on the core subjects in a variety of scientific and industrial institutions;
- possession of algorithm of research activities;
- the ability to make creative use of the achievements of science and summarize the results of research;
- the ability to foresee the possible positive and negative effects of job search engine;
- the ability to objectively assess the results of their research activities;

✓ *in the field of organizational and of management activities:*

- planning the educational process, the content of the course of geography, choose the material, methods, techniques, tools for content activity and organization of the developing environment and use it as a means of education of the person of Graduates at different levels of education;
- identify ways of organizing and conducting training and educational process;
- organizational and technological activity in the industries of relevant profiles;
- production and management activities in government agencies at various levels.

### **2.7 The content of professional activity**

The content of professional activity of Master of Pedagogical Sciences in Geography:

- quality organization and management of the pedagogical process;
- focus on actively studying the development of methods of cognitive activity, the personal importance of education;
- the use of student-centered approach to learning to enable self-discovery and self-realization of Graduates;
- the use of various pedagogical technologies, creation of favorable conditions for self-education and professional orientation of Graduates;
- implementation of professional, scientific research, production activity in accordance with modern requirements.

### **3. Learning outcomes (general skills)**

Learning Outcomes of Master of Pedagogical Sciences in Geography (7-th qualification Level of NQF) in accordance with the Dublin Descriptors of the second level of training involves the ability:

- to demonstrate knowledge and understanding of educational obtained at the level of higher education, which are the basis for the original or the possibility of development or application of ideas, often in the context of scientific research;
- to apply knowledge, understanding and ability to solve problems in new or unfamiliar situations and contexts within broader (or multidisciplinary) areas related to the field of study;
- to integrate knowledge, deal with the complexities and make judgments based on incomplete or limited information, taking into account ethical and social responsibility for the application of these judgments and knowledge;
- clearly communicate and express their conclusions and the knowledge and support of specialists and non-specialists;
- to continue learning independently.

**General skills** Master of Pedagogical Sciences in Geography based on the following key skills (the requirements for general education, and ethical, economic, organizational and managerial skills) and special skills.

### **3.1 Key skills:**

✓ ***Requirements to key competences of graduates in scientific and pedagogical magistracy are:***

#### ***1) to have an idea about:***

- the role of science and education in the social life;
- current trends in the development of scientific knowledge;
- actual methodological and philosophical problems of natural, social and economic sciences;
- the professional competence of the teacher of the higher school;
- the contradictions and socio-economic impacts of globalization.

#### ***2) to know:***

- methodology of scientific knowledge;
- the principles and structure of the organization of scientific activity;
- the psychology of cognitive activity of Graduates in the learning process;
- psychological methods and means to improve the efficiency and quality of education.

#### ***3) be able to:***

- use the received knowledge for original development and application of ideas in the context of scientific research;
- critically analyze existing concepts, theories and approaches to the analysis of processes and phenomena;
- integrate the knowledge gained within different disciplines to solve research tasks in new unfamiliar conditions;
- through the integration of knowledge to make judgments and decisions based on incomplete or limited information;
- apply knowledge of pedagogy and psychology of higher education in their teaching activities;
- use interactive teaching methods;
- carry out information and analytical and information and bibliographic work with attraction of modern information technologies;
- think creatively and have creative approach to solving new problems and situations;
- speak a foreign language at a professional level, allowing to carry out scientific research and to implement the teaching of special disciplines in the universities;

– generalize the results of scientific research and analysis in the form of theses, scientific articles, reports, analytical notes and others.

**4) have the skills of:**

- research activity, standard solutions of scientific problems;
- implementation of educational and pedagogical activities of credit technology;
- methods of teaching vocational subjects;
- use of modern information technologies in educational process;
- professional communication and cross-cultural communication;
- oratory, the correct and logical registration of the thoughts orally and in writing;
- expanding and deepening the knowledge necessary for daily professional activity and continuing education in doctoral studies.

**5) to be competent:**

- in the field of research methodology;
- in the field of scientific and pedagogical activity in higher education institutions;
- on issues of modern educational technologies;
- in the implementation of scientific research projects and professional activities;
- in how to ensure continuous updating of knowledge and the expansion of professional skills and abilities.

**3.2 Special competence:**

**✓ A - knowledge and understanding of:**

- A1 – knowledge of the aims and objectives of the scientific and scientific-methodical activity;
- A2 – knowledge of theoretical and methodological foundations of Geography;
- A3 – geographical knowledge of the patterns of development and functioning of the natural and man-made systems;
- A4 – knowledge of fundamental laws and theories of geographical, natural essence of processes and phenomena in nature and economy;
- A5 – knowledge of sectorial, regional, national and global issues in the context of integrated geographical research;
- A6 – knowledge of basic research and theoretical and practical innovative developments aimed at system solution of problems in various fields of education;
- A7 – knowledge of the main categories of the science, allowing to analyze the current problems of pedagogical science;
- A8 – knowledge of theoretical bases of innovative pedagogical technologies in teaching geography.

**✓ B - application of knowledge and understanding:**

- B1 – understanding of new conceptual ideas and trends in the development of science teaching in the context of the modern paradigm of education;
- B2 – possession of techniques of computer modeling and methods of theoretical analysis of research results;
- B3 – use of geographical knowledge in various fields of activity;
- B4 – understanding of the methodology of scientific research;
- B5 – understanding of the relationship of the methodological, theoretical and applied levels in the scientific research on pedagogy;
- B6 – conducting diagnostic analysis of the development, communication, activities of Graduates of all ages through qualitative and quantitative methods of psychological and educational research;

B7 – understanding of the relationship of the basic scientific concepts of pedagogy with the general problems of the development of science and society.

✓ **C - forming judgments:**

C1 – an innovative style of scientific and pedagogical thinking and holistic perception of pedagogical reality;

C2 – independence and initiative thinking, critical, analytical, diagnostic skills;

C3 – awareness of the social importance of the teaching profession, the principles of professional ethics, improving the professional and personal qualities of the teacher;

C4 – the ability to analyze complex and the formation of judgments about global environmental and economic problems and the rational use of natural resources;

C5 – development outlook, consciousness, activity, self-cognitive, research and creative activity;

C6 – professional-pedagogical self-consciousness, the formation of the need for further personal and professional self-development of Graduates.

✓ **D - personal capacity:**

D1 – the presence of the professional qualities of the teacher personality, knowledge of communication technologies, skills, pedagogical rhetoric, communication strategies;

D2 – the willingness to create new values, the adoption of creative solutions, tolerance and the ability to pedagogical cooperation;

D3 – the pursuit of the development of intellectual, moral, cultural, awareness of nature, communication, organizational and management skills;

D4 – the desire for a high motivation to educational activities, creative application of educational innovation, self-education and self-realization;

D5 – the ability to understand the laws of formation and development of scientific knowledge as a cultural phenomenon;

D6 – the ability to make a contribution through original research that extends the scope of existing knowledge through the development of scientific work;

D7 – the ability to implement the principles of health preservation and the formation of culture of health of Graduates, respect for health and safety.

#### **4. Learning and Teaching Strategies and Methods**

General learning outcomes at the ProgrammeSpecialty 6M011600-Geography(7-th Qualification Level of the NQF) will be achieved through the following training events:

1) classroom training: lectures, seminars,practical classes - using innovative innovative teaching technologies, using the latest achievements of science, technology and information systems, and in interactive forms;

2) extracurricular classes: independent work of the student, this involves:teacher-led, individual consultations;

3) Training and Professional Placement,Defense of Masters Dissertation.

The content of the educational programmeof a specialty allows Graduates to master the system of subject, interdisciplinary, psychological, pedagogical and methodological knowledge, to demonstrate knowledge and understanding in the field of Geography, pedagogy and psychology, to apply this knowledge and understanding in a professional manner.

Lectures, seminars, discussions, practical classes, various types of placements throughout the programme will provide Graduates withopportunities to develop key and special skills in Geography, in particular the use of theoretical knowledge in Geography,taking into account the specific socio-

pedagogical conditions, rational and creative use of pedagogical technologies and information sources (media training programmes, electronic books, TV, and Internet technologies) in the educational process.

Leaders of the Faculty of independent work of Graduates, individual consultations will enable Graduates to develop educational and research skills. In addition, Graduates are workson the Defense of Masters Dissertation under the personal guidance of the Supervisor.

## 5. Control and assessment of learning results

In preparing Master of Pedagogical Sciences in Geography (7-the Qualification Level of the NQF) provides a wide range of different forms of control and assessment of learning results: current and boundary control (questioning in the classroom, testing, test papers, final paper, portfolio, discussions, trainings, colloquiums, etc.), midterm attestation (tests on sections of discipline, the examination, defense of reports on placement), Final State Attestation (Defense of Masters Dissertation, Complex Examination on Specialty).

Assessment methods are designed to develop critical thinking, intellectual, oral and written communication, presentation skills.

The programme of specialty includes training and continuous professional placement during the entire period of study that allows Graduates to learn the placement-oriented knowledge and skills in the subject area, the planning and organization of educational and pedagogical activity, methods of teaching Geography and application in the educational process of innovative learning technologies, and pedagogical interaction of the teacher and the Graduates, etc.

## 6. Matrix of Disciplines and Specific Skills:

№	Discipline	A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	C5	C6	D1	D2	D3	D4	D5	D6	D7
1.	Pedagogy	*						*	*	*				*	*	*			*				*	*	*	*			
2.	Psychology	*						*	*	*				*	*	*	*	*				*		*					
3.	Organization and Planning of Research	*				*	*	*	*	*	*		*	*	*		*	*	*		*					*	*	*	
4.	Development of the Earth and Geographical Laws		*	*	*	*				*	*	*					*	*	*	*	*	*	*		*	*	*		
5.	Project Management	*				*	*	*			*		*	*	*		*	*	*		*					*	*	*	
6.	Theory and Practice of Geography Education		*	*	*	*			*	*		*		*	*	*	*	*	*	*	*	*	*		*	*	*		
7.	Geocology and Landscape Planning Framework		*	*	*	*	*	*		*	*	*		*	*	*	*	*	*	*	*	*	*		*	*	*		
8.	History and Methodology of Geographical Science		*	*	*	*	*	*		*	*	*		*	*	*	*	*	*	*	*	*	*		*	*	*	*	
9.	Technology Teaching Geography in Secondary		*	*	*	*		*	*	*		*		*	*	*	*	*		*	*	*	*		*	*	*	*	





teaching in the context of the modern paradigm of education; B2 – possession of techniques of computer modeling and methods of theoretical analysis of research results; B3 – use of geographical knowledge in various fields of activity; B4 – understanding of the methodology of scientific research; B5 – understanding of the relationship of the methodological, theoretical and applied levels in the scientific research on pedagogy; B6 – conducting diagnostic analysis of the development, communication, activities of Graduates of all ages through qualitative and quantitative methods of psychological and educational research; B7 – understanding of the relationship of the basic scientific concepts of pedagogy with the general problems of the development of science and society.	communication technologies, skills, pedagogical rhetoric, communication strategies; D2 – the willingness to create new values, the adoption of creative solutions, tolerance and the ability to pedagogical cooperation; D3 – the pursuit of the development of intellectual, moral, cultural, awareness of nature, communication, organizational and management skills; D4 – the desire for a high motivation to educational activities, creative application of educational innovation, self-education and self-realization; D5 – the ability to understand the laws of formation and development of scientific knowledge as a cultural phenomenon; D6 – the ability to make a contribution through original research that extends the scope of existing knowledge through the development of scientific work; D7 – the ability to implement the principles of health preservation and the formation of culture of health of Graduates, respect for health and safety.
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The programme of the Specialty also include general subjects (History of Philosophy of Science, Foreign Language) which is aimed at training the formation and development of relevant key skills of Master of Pedagogical Sciences in Geography as section 3.1.

## 7. Structure and norms of components distribution in programme

№	Activity kinds	Credits	Weeks	Total hours
1.	Theoretical training (1:2)	42	45	1890
2.	Research, this involves: Defense of Masters Dissertation, carried out while studying (1:7)	3	-	360
	Research, this involves: Defense of Masters Dissertation (1:7)	4	9	480
3.	Final Attestation	4	8	420
	<b>TOTAL:</b>	<b>53</b>	<b>62</b>	<b>3150</b>
4.	Placement (Professional), carried out while studying (1:1)	3	-	90
5.	Placement (Research) (1:7)	3	12	360
6.	Recess		<b>13</b>	
7.	Examinations		<b>9</b>	
	<b>TOTAL:</b>	<b>59</b>	<b>96</b>	<b>3600</b>

To get a Master's Degree in the Specialty 6M011600-Geography Graduates should master not less than 42 credits of theoretical training, not less than 6 credits of Placement and not less than 7 credits of Research.

Graduates also masters in parallel with theoretical training without separation from educational process: 3 credits of Research (1 credit per semester) and 3 credits of Professional Placement.