

List of prerequisites of Master program prerequisites

№	Specialty	Prerequisites	
		For profession-oriented direction	For research and educational directions
1.	6M010200– Pedagogy and methods of primary teaching	1. Pedagogics 2. General psychology 3. Ethnopedagogics	
2.	6M010300–Pedagogy and psychology	1. Introduction to the pedagogical profession 2. Self-cognition 3. Ethnopedagogics	
3.	6M011000-Physics	1. Optics 2. Atom and nuclear physics 3. Teaching methods of physics 4. Astronomy	
4.	6M011700-Kazakh language and literature	1. Methods of teaching of Kazakh language 2. Methods of teaching of Kazakh literature 3. Theory of literature 4. History of Kazakh literature	
5.	6M050600–Economics	1. Economic theory 2. Enterprise economics	1. Economic theory 2. Enterprise economics 3. Management
6.	6M050700–Management	1. Economic theory 2. Business organization	1. Economic theory 2. Business organization
7.	6M060800–Ecology	1. Fundamentals of systemic ecology 2. Ecological monitoring 3. Origin and evolution of biosphere	1. Fundamentals of systemic ecology 2. Ecological monitoring 3. Origin and evolution of biosphere
8.	6M070300–Information systems	1. Algorithms, data structures and programming 2. IS data-base 3. Fundamentals of information systems	1. Algorithms, data structures and programming 2. IS data-base 3. Fundamentals of information systems
9.	6M0706 00–Geology and mineral deposits exploration	1. Geology and mineral deposits of Kazakhstan 2. Local geology of minerals 3. Fundamentals of mineral management	1. Geology and mineral deposits of Kazakhstan 2. Local geology of minerals 3. Fundamentals of

			mineral management
10.	6M070800–Oil and gas business	<ol style="list-style-type: none"> 1. Fundamentals of oil and gas engineering 2. Shelf field development 3. Technology and technics of oil and gas exploitation 	<ol style="list-style-type: none"> 1. Fundamentals of oil and gas engineering 2. Shelf field development 3. Technology and technics of oil and gas exploitation
11.	6M071200–Mechanical engineering	<ol style="list-style-type: none"> 1. Fundamentals of changeability 2. Technologic processes of mechanical facilities 3. Computer graphics 	<ol style="list-style-type: none"> 1. Fundamentals of changeability 2. Technologic processes of mechanical facilities 3. Computer graphics
12.	6M071500–Marine technologies and equipment	<ol style="list-style-type: none"> 1. Shipboard damage control manual 2. Profession-oriented foreign language 3. Theoretic mechanics 	<ol style="list-style-type: none"> 1. Shipboard damage control manual 2. Profession-oriented foreign language 3. Theoretic mechanics
13.	6M072100–Chemical technology of organic substances	<ol style="list-style-type: none"> 1. Organic chemistry 2. Basics of the profession 3. Fossil fuel technology 	<ol style="list-style-type: none"> 1. Organic chemistry 2. Basics of the profession 3. Fossil fuel technology
14.	6M072400–Technological machines and equipment	<ol style="list-style-type: none"> 1. Technological machine maintenance 2. Engineering graphics 3. Installation and maintenance of technological machines 	<ol style="list-style-type: none"> 1. Technological machine maintenance 2. Engineering graphics 3. Installation and maintenance of technological machines
15.	6M074200–Navigation	<ol style="list-style-type: none"> 1. Shipboard damage control manual 2. Profession-oriented foreign language 3. Theoretic mechanics 	<ol style="list-style-type: none"> 1. Shipboard damage control manual 2. Profession-oriented foreign language 3. Theoretic mechanics

List of PhD program prerequisites

№	Specialty	Prerequisites
1	6D010300- Pedagogy and psychology	1. Pedagogics 2. Psychology
2	6D020500- Linguistics	1. Theoretic fundamentals of periodization of history of language 2. Literature stream
3	6D060800- Ecology	1. New technologies of sound management of biological and raw material resources 2. Environment and conservation of biological diversity
4	6D070800- Oil and gas business	1. Theory of liquid-gas motion 2. Water shutoff
5	6D070600- Geology and mineral deposits exploration	1. Contemporary geology issues 2. Geology and oil-and-gas content of Mangyshlak peninsula