The purpose of the educational program is to provide comprehensive and high-quality training of competitive, highly qualified specialists who are ready to solve practical and theoretical problems of professional activity in modern conditions based on the development of skills and abilities necessary for a future specialist. The educational program "Mining Engineering" covers the specialty "Mining" and provides training in the following learning paths: underground mining of mineral deposits; open-pit mining of mineral deposits; construction of mines and underground structures; mine surveying; geotechnology of underground borehole leaching of uranium. Education of students in educational programs 6B07205 - "Mining Engineering", 7M07203 - "Mining Engineering" is conducted at the Mining and Metallurgical Institute named after O.A. Baikonurov at the Department of "Mining" KazNRTU NPJSC "Kazakh National Research Technical University named after K.I. Satpaev” (Satbayev University) according to license KZ56LAA00005304 dated July 11, 2015, issued by the Ministry of Education and Science of the Republic of Kazakhstan. The training of specialists in this specialty is carried out on the basis of the state compulsory standard of higher education and the State compulsory standard of postgraduate education of the Republic of Kazakhstan No. 1080 dated August 23, 2012. According to the educational program 6B07203 - "Mining Engineering", the educational process is conducted according to the credit technology of education, the training period is 4 years. Qualification - Bachelor of Engineering and Technology. According to the educational program 7M07203 - "Mining Engineering", the educational process is conducted according to the credit technology of education, the training period is 2 years. Qualification - Master of Technical Sciences. The educational program 5B070707 - Mining and 6M0707 - Mining in 2016 was accredited by the accreditation agency ASIIN. Admission of students is carried out in accordance with the Rules for admission to the bachelor's degree. The requirements for the minimum passing score based on the results of the UNT and CT for admission to the national university (70 points) are observed. The list of educational programs within the framework of the educational program is established by the Academic Council of the University independently in accordance with the Dublin descriptors, agreed with the European Qualifications Framework. Training of specialists in educational programs 6B07205 - Mining Engineering, 7M07203 - Mining Engineering is carried out in accordance with the standard and experimental curricula of the specialty. The study of disciplines is based on the study of a cycle of general education, basic and specialized disciplines, which allow students to create the necessary knowledge base, improve their level of training, reveal their abilities and creative interest.

**The purpose of the educational program** 6В07205 - Mining Engineering (bachelor's degree) is to provide training for enterprises of the mining complex of professionally educated and competent specialists who are able to work in primary engineering and technical positions and effectively extract natural resources in various mining and geological and mining conditions based on the study of general educational, basic and profile disciplines.

**Objectives of the educational program** 6B07205 - Mining Engineering (bachelor's degree):

- study of a cycle of *general education disciplines* to provide social and humanitarian education based on the laws of socio-economic development of society, history, modern information technologies, the state language, foreign and Russian languages;

- study of a cycle of *basic disciplines* to provide knowledge of natural science, general technical and economic disciplines, as the foundation of vocational education;

- the cycle of *major disciplines* is focused on the study of key theoretical aspects of mining technology and technology, ensuring the safe and efficient implementation of various technologies for the extraction, processing of solid minerals and the rational use of natural resources;

- study of disciplines in the extraction of natural resources by open, underground and borehole methods based on advanced technologies, planning the construction of industrial facilities at mining enterprises and urban underground structures for various purposes;

- study of disciplines that form knowledge, skills and abilities of planning and organization of research, design of mining operations;

- familiarization with the technologies and equipment of enterprises during the period of various types of practices;

- acquisition of skills and abilities of laboratory research, technological calculations, equipment selection and design using modern computer technologies and programs.

The training of specialists in the educational program 7M07203 - Mining Engineering (master's degree) is carried out in accordance with the standard and experimental curricula of the specialty. The study of disciplines is based on the study of a cycle of basic and specialized disciplines that allow students to create the necessary knowledge base, improve their level of training, reveal their abilities and creative interest, and allows you to train specialists in the field of development of deposits of solid minerals that can be in demand by society at mining enterprises, research institutes, institutions of education and science.

**The purpose of the educational program** 7M07203 - Mining Engineering (Master's program) is: to train a highly qualified specialist in the field of development of solid minerals, who meets the requirements of modern high-tech production, is able to carry out design and production and technological activities at a high technical level in this area, engage in organizational and managerial activities in the public and private sectors, in mining enterprises, the nuclear industry, in design, educational and research organizations of any form of ownership.

* **Objectives of the educational program** 7M07203 - Mining Engineering (Master's):
* implementation of technical management of mining and blasting, as well as work to ensure the functioning of equipment and technical systems of mining;
* develop, coordinate and approve regulatory documents regulating the procedure for performing mining, blasting, as well as work related to the primary processing of solid minerals, construction and operation of underground structures, ensure compliance with the requirements of technical documentation for the production of work, applicable norms, rules and standards;
* develop and implement measures to improve the environmental safety of mining;
* be guided in practical engineering activities by the principles of integrated use of the georesource potential of the subsoil;
* develop and implement measures to improve and increase the technical level of mining production, ensure the competitiveness of the organization in modern economic conditions;
* develop plans for the elimination of accidents in the production of mining and primary processing of solid minerals, as well as in the construction and operation of underground facilities;
* organize your work and labor relations in a team based on modern methods, management principles, advanced production experience, technical, financial, social and personal factors;
* control, analyze and evaluate the actions of subordinates, manage a team of performers, including in emergency situations;
* ensure the training and certification of employees in the field of industrial safety;
* conduct a feasibility study, comprehensively justify the operational decisions made and implemented, seek opportunities to improve production efficiency, assist in providing the enterprise’s departments with the necessary technical data, regulatory documents, materials, equipment;
* carry out work to improve production activities, develop projects and programs for the development of the enterprise (divisions of the enterprise);
* analyze the processes of mining, mining and construction industries and complexes of equipment used as objects of control;
* plan and carry out theoretical, experimental and laboratory studies, process the results obtained using modern information technologies;
* carry out patent search, study scientific and technical information, domestic and foreign experience on research topics;
* develop models of processes, phenomena, evaluate the reliability of the constructed models using modern methods and tools for analyzing information;
* prepare reports on research work independently or as part of creative teams;
* to carry out certification tests (research) of the quality of the products of the mining enterprise, the equipment, materials and technological processes used;
* develop measures to manage product quality;
* use methods for predicting and assessing the level of industrial safety at production facilities, justify and implement effective measures to reduce occupational injuries;
* conduct a technical and economic assessment of solid mineral deposits and underground construction facilities, the efficiency of the use of process equipment;
* justify the parameters of the mining enterprise;
* perform calculations of technological processes, productivity of technical means of complex mechanization of work, throughput capacity of transport systems of mining enterprises, draw up schedules for the organization of work and calendar plans for the development of production;
* justify design solutions to ensure industrial and environmental safety, economic efficiency of production facilities for operational exploration, mining and processing of minerals, during the construction and operation of underground facilities;
* develop the necessary technical documentation as part of creative teams and independently;

- independently draw up projects and passports for mining and drilling and blasting;

- design enterprises for the extraction and processing of solid minerals, as well as the construction of underground facilities using modern information technologies.