Geomechanics, Rock Destruction, Mine Aerogasodynamics and Mountain Thermophysics

Far Eastern Federal University

Degree or qualification is awarded: **Candidate of Sciences**

Language of study: **Russian**
Mode of study: **full-time, part-time**
Duration: **4 years**
Availability of free education: **yes**
Price: **320 000 rub a year (full-time) / 160 000 rub a year (part-time)**

Programme webpage at the university website:
https://www.dvfu.ru/upload/medialibrary/a06/%D0%9F%D0%B5%D1%80%D0%B5%D1%87%D0%B5%D0%BD%D1%8C%20%D0%BF%D1%80%D0%BE%D0%B3%D1%80%D0%B0%D0%BC%D0%BC%20%D0%B0%D1%81%D0%BF%D0%B8%D1%80%D0%B0%D0%BD%D1%82%D1%83%D1%80%D1%8B,%20%D0%BE%D0%B1%D1%8A%D1%8F%D0%B2%D0%BB%D0%B5%D0%BD%D0%BD%D1%8B%D1%85%20%D0%B2%20%D0%BD%D0%B0%D0%B1%D0%BE%D1%80%202020%20%D0%B3%D0%BE%D0%B4%D0%B0.pdf

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The purpose of the educational program is to acquire the level of competence necessary for professional activities and prepare for the defense of scientific and qualification work (dissertation) for the degree of candidate of sciences.

The main objectives of the main educational program are:

- development of skills of independent research and pedagogical activities in the field of geomechanics, rock destruction, mine aerogasodynamics and mountain thermophysics;

- in-depth study of the theoretical and methodological foundations of mining science;

- Improving the philosophical training of professional-oriented activities;

- improvement of knowledge of a foreign language for use in scientific and professional activity;

- formation of competencies necessary for successful scientific and pedagogical work in the corresponding field of the profile "Geomechanics, rock destruction, mine aerogasodynamics and mountain thermophysics."

The labor intensity of the PLO is 240 credit units, regardless of the form of training, the applied educational technologies, the implementation of the postgraduate program using a network form, the implementation of the postgraduate program according to an individual curriculum, including with accelerated training.

The field of professional activity of graduates who have mastered the postgraduate program includes: research, modeling, designing geotechnologies for the development of the resource potential of the subsoil; research, forecasting and modeling of manifestations of geomechanical, hydrodynamic and gas-dynamic processes during mining, transportation and storage of minerals, construction of engineering (ground and underground) structures for various purposes; research and development of innovative solutions to improve the technical level of production for mining, processing (enrichment), transportation and storage of minerals, construction of engineering (ground and underground) structures; research, scientific justification of principles and methods of ensuring industrial safety and environmental friendliness in the search, exploration, extraction and processing (enrichment), transportation and storage of minerals, construction of engineering (ground and underground) structures; pedagogical activity in training personnel with higher education.

The objects of professional activity of graduates who have mastered the postgraduate program are: geological and production facilities for the development of subsoil; geotechnologies of subsoil development, equipment and technical

systems; methods, techniques and technologies to ensure safe and environmentally friendly exploitation of mineral reserves; methods and systems for designing geotechnologies for exploration and exploitation of subsoil; software tools for studying the geological structure of subsoil, modeling processes of prospecting, exploration, extraction and processing (enrichment), transportation and storage of minerals, design of equipment and technical systems, processing and analysis of research results.

Types of professional activities for which graduates who have mastered the postgraduate program are preparing: research activities in the field of georesource potential of mineral deposits, substantiation of its safe and effective industrial implementation, design of equipment and creation of technologies for geological study of subsoil, prospecting (or detection), exploration, extraction and processing (enrichment), transportation and storage of minerals, construction of engineering (ground and underground) structures, development of a set of measures for subsoil and environmental protection; Teaching activities in higher education programmes.

Main partners - academic and design institutes, mining enterprises.

Period of study: full time – 4 years, part-time – 5 years

Specializations within this programme