

Ecology (Chemical Sciences)

Far Eastern Federal University

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

Language of study: **Russian**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **320 000 rub per year**

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%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>

Programme curator: **Artem Grachev**

Tel.: **+74232652424 (#2206)**

E-mail: interadmission@dvfu.ru

The purpose of the educational program is to acquire the level of competencies necessary for the implementation of professional activities and preparation for the defense of a scientific and qualifying work (dissertation) for the degree of candidate of sciences.

Tasks:

1. To establish the forms of anthropogenic impact on the environment, including humans;
2. Assess the scale of anthropogenic impact on the environment and make a forecast of its impact on the biosphere;
3. Find or create methods and technologies, taking into account the capabilities of the region and its specificity, which will reduce the anthropogenic impact on the environment and make it possible to partially or completely restore it;
4. To create a scientific basis for the rational exploitation of natural resources, forecasting changes in nature under the influence of human activities and management of processes in the biosphere.
5. Optimize economic, legal, social and other solutions to ensure environmentally friendly, sustainable development.

The field of professional activity covers a set of tasks in theoretical and applied chemistry in the direction of training 04.06.01 Chemical sciences, profile "Ecology (chemical sciences)", as well as related natural science disciplines.

The area of professional activity of graduates who have mastered the postgraduate program includes the spheres of science, science-intensive technologies and chemical education, covering a set of tasks in theoretical and applied chemistry (in accordance with the focus of training), as well as related natural sciences.

The types of professional activities for which the graduates who have mastered the postgraduate program are preparing: research activities in the field of chemistry and related sciences; teaching activities in the field of chemistry and related sciences.

The postgraduate program is aimed at mastering all types of professional activities for which the graduate is preparing. The active development of heavy industry, light industry and public utilities in the last century has led to a huge anthropogenic pressure on the ecosphere. This contributed to the presence of numerous environmental problems and even disasters in many districts and regions of our country, therefore, now more than ever, the question of finding the right solutions to eliminate them is urgent. Most environmental problems are based on imperfect chemical technologies, therefore, the consequences can be eliminated only with the help of modern methods, using

basic chemical laws. Consequently, this direction of postgraduate study is currently one of the most relevant, since an untimely solution of existing environmental problems will lead to even more difficult situations, for the solution of which the costs will increase significantly.

Until chemical technologies are not perfect enough, the anthropogenic load on the ecosphere is significant, and environmental problems and disasters take place, then specialists of this profile in the modern labor market will be in demand so that there is someone to competently solve them.

The variable part of the main professional educational program formed by us, including the disciplines "Ecology", "Methods of teaching chemistry at the university", "Technogenic systems of the mining industry and their environmental consequences", "Actual problems of physical chemistry", "Modern methods of wastewater treatment", "Integrated processing of vegetable waste ", allows you to take into account the modern requirements of advanced vocational education and carry out its operational adjustment of the content in the context of the changing requirements of the current labor market. It allows you to form the general professional and professional competencies of a graduate of graduate school, taking into account modern requirements for scientific and qualification work and the requests of employers (institutes of chemistry, geology, mining and other FEB RAS, various Federal services of the Ministry of Natural Resources and Ecology of the Russian Federation, large-scale mining and chemical enterprises, etc. etc.).

Specializations within this programme