

Ecology (Biological sciences)

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 per year (full-time) / 160 000 rub per 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%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.

The area of professional activity of graduates who have mastered the postgraduate program includes:

- study of living nature and its laws;
- the use of biological systems - for economic and medical purposes, environmental technologies, protection and rational use of natural resources;

The listed studies are carried out using theoretical knowledge and practical experience obtained in the course of studying the disciplines of the microbiological profile. The professional competence of microbiological, genetic, molecular and cytological research provides the graduate of the Ecology profile with the opportunity to successfully develop and industrialize biological products based on microorganisms, to ensure the biological safety of enterprises, to organize and conduct sanitary control and product quality control. In environmental laboratories and organizations, graduates of the "Ecology" program are able to carry out biomonitoring and biological control over the state of the natural environment, assess anthropogenic impacts on it, design and carry out measures for nature protection.

The objects of professional activity of graduates who have mastered the postgraduate program are: biological systems of various levels of organization, the processes of their life and evolution; biological, bioengineering, biomedical, nature conservation technologies, biospheric functions of soils; biological expertise and monitoring, assessment and restoration of territorial biological resources and the natural environment.

The types of professional activities for which graduates who have mastered the postgraduate program are preparing:

- research activities in the field of biological sciences;
- teaching activities in the field of biological sciences;
- independent research activity, requiring deep specialized training in the field of microbiology, possession of the skills of modern research methods in this area.

The postgraduate program is aimed at mastering all types of professional activities for which the graduate is preparing.

The training of graduate students in the educational program "Ecology" is relevant and is caused by the great need of enterprises in the region for microbiologists, since today none of the universities in the Far East produces such specialists.

The disciplines of the basic part of the curriculum ("Foreign language" and "History and philosophy of science") form a system of worldview, scientific principles, methodological skills and a theoretical knowledge base. The choice of disciplines of the variable part ("Organizational and managerial foundations of higher education", "Modern educational technologies in higher education", "Ecology", "Methods of statistical processing in microbiological research", "Variability and adaptation of microorganisms", "Bacterial biofilms" and "Genomics and proteomics of microorganisms") provides the necessary general professional and professional competencies of the graduate and meets the requirements of the modern labor market. The disciplines of the variable part of the program are aimed at teaching graduate students the skills of using molecular genetic, biochemical, immunological, environmental and mathematical methods in their research activities, which allows them to take into account the needs of employers in terms of professional specialization.

Formed competencies allow a graduate of the Ecology profile to find solutions based on an integrated interdisciplinary approach and become leaders in companies whose activities are related to the use of microorganisms and their metabolic products, in environmental organizations, research institutes and higher educational institutions. The need for specialists with such qualifications is constantly present in the food, chemical, pharmaceutical industry, in organizations engaged in agriculture, veterinary control, biotechnological production, in sanitary and epidemiological services, in environmental control organizations, scientific and educational institutions, both in our country and abroad.

Specializations within this programme