

# Biochemistry

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%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 in the direction of training "06.06.01 Biological Sciences", profile "Biochemistry" is to train highly qualified personnel with deep knowledge in the field of biochemistry and capable of solving a wide range of professional and managerial problems. In the course of training, the level of competencies necessary for professional activity is acquired and preparation is carried out for the defense of a scientific and qualification 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 specificity of this OOP is to prepare graduates for scientific and pedagogical activities in the field of physicochemical and structural-functional foundations of the organization of living organisms, which includes the study of the structures and functions of protein-enzyme molecules, carbohydrates, lipids and nucleic acids that make up living organisms, as well as their immunological properties, metabolic processes and its regulation. The graduate possesses a wide range of analytical methods in biological chemistry, molecular biology, immunochemistry, immunobiology and biotechnology, is able to organize and independently implement scientific projects, as well as train students in research and educational institutions.

The objects of professional activity of graduates who have mastered the postgraduate program are:

- biological systems of various levels of organization (molecular-genetic, cellular-tissue, organismic, population-specific, biosphere), the processes of their vital activity and evolution;
- biological, bioengineering, biomedical, nature conservation technologies, biological expertise and monitoring, assessment and restoration of territorial biological resources and the natural environment;
- marine and freshwater aquatic organisms, higher plants and cell culture of rare and endangered plants. Structural and functional, immunological, medical and pharmacological features of biologically active substances (BAS) of these

objects, as well as various types of natural, economically useful and pathogenic microorganisms.

The specific for this OOP objects of professional activity are: the processes of functioning of various cells, molecular and genetic patterns of the functioning and development of cells and tissues of various organisms, the basis and prospects for the use of various modern methods of biochemistry and biotechnology, as well as genetics and microbiology.

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.

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

This OOP carries out training of scientific and pedagogical personnel in an extremely relevant direction, affecting the problems of biotechnology, biomedicine and biology. Graduates of this profile are in demand in the modern labor market and have broad prospects for employment in the field of research and teaching.

In particular, the program provides theoretical knowledge and

Mastering the program creates opportunities for the preparation and defense of a dissertation for the degree of candidate of biological sciences, employment in a teaching faculty, as well as as a research assistant in higher educational institutions and the Academy of Sciences of Russia and abroad.

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

### **Specializations within this programme**