

Biophysics

Siberian Federal University

Degree or qualification is awarded: **Master's degree diploma**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **yes**

Price:

Programme webpage at the university website: <http://edu.sfu-kras.ru/programs>

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The educational program Biophysics, major in Biology is designed to ensure the formation of the biosphere and noosphere world view and a set of core competencies for research and educational activities in the field of biology, biophysics, biotechnology and ecology for the study of wildlife and its patterns, the use of biological systems for economic and medical purposes, environmental protection, etc. ., on the basis of active and interactive forms of education, involving the participation of students in basic and applied scientific research, innovation development of science and high technologies in Russia, on the problems of ecology and sustainable development of ecosystems under the conditions of anthropogenic impact.

Program tasks:

- creating the conditions for the formation of a set of key competencies for students for research and educational activities in the field of biology, biological engineering or biophysics;
- creating the conditions for students to acquire the necessary level of knowledge, skills, and experience to carry out professional activities in the field of biology, biological engineering or biophysics, in particular, mastering biological, bioengineering, biomedical, environmental technologies, methods of biological expertise and monitoring, assessment and restoration of territorial bio-resources and natural environment;
- the development of students' research skills in the performance of individual scientific work in the field of biology, biological engineering or biophysics: students will master all stages of scientific
- research from the formulation of a scientific problem up to obtaining scientific results and the experimental data analysis.

Competitive advantages for a graduate: graduates of the program are highly qualified specialists who possess both classical methods of biological and ecological analysis, modern knowledge and methods in the field of biophysics and biotechnology, and the latest physical, chemical and molecular genetic tools and techniques for the study of wildlife and its patterns, the use of biological systems for economic and medical purposes, nature conservation and the study of biosystems of different levels of organization. The major part of the educational process includes internships and practical trainings which are conducted both on the basis of research institutes and partner universities and well-equipped laboratories of the Siberian Federal University, for example, in the Laboratory of bioluminescent biotechnologies, engaged in fundamental research on the phenomenon of light emission by living organisms, i.e. bioluminescence.

Employment: graduates can work in research institutes, pharmaceutical companies, biomedical laboratories, nature conservation and environmental management bodies, universities. Graduates of the master's program have the opportunity to enter the postgraduate school of Siberian Federal University, other universities or academic institutions, including foreign ones, and to defend their PhD thesis. During their studies, students have the opportunity to undergo training and / or research internships and gain experience in leading foreign universities and research centers.

Strategic partners:

1. Academic institutes of the Federal Research Center "Krasnoyarsk Scientific Center of the Siberian Branch of the Russian Academy of Sciences" (Institute of Biophysics, Siberian branch of the Russian Academy of Sciences, Sukachev Forest Institute, Siberian branch of the Russian Academy of Sciences).
2. Mining and chemical combine (Zheleznogorsk).
3. Federal State Institution Sanitary and Epidemiological Supervision Center.
4. International Research Center for the Study of the Extreme Condition of the Body (Siberian branch of the Russian Academy of Sciences).

Specializations within this programme