

KAZAN (VOLGA REGION) FEDERAL UNIVERSITY
KAZAN, RUSSIA
INSTITUTE OF FUNDAMENTAL MEDICINE AND BIOLOGY
(IFMB)

Master's Program

Biological Monitoring of Ecosystems and Natural Protection

Theoretical basis

There is no denying the fact that the science of ecology has a huge significance in the modern world. A highly qualified ecologist is in great demand these days and our future depends on their professional competence. Ecological education is in need both for those who seek profit and those who compile laws, for those who teach and treat – basically for every citizen. Ecology is increasingly penetrating into the social and economic spheres; at the suggestion of the President of the Russian Federation it has been included in the list of national priority-driven development lines of the country.

The aim of the program

The Master's program is due to be implemented at Kazan Federal University for the first time. No university of the Middle Volga region conducts a Master's program on this profile so far. The main aim of the masters' training is to provide environmental organizations, scientific and educational institutions of the republic with highly-skilled staff in the sphere of ecology and rational exploitation of natural resources. The program is aimed at preparing such specialists and included in the list of the branches of study of higher education.

Objectives of the program

The field of professional activities is investigation of wild life and its objective laws at all levels with the purpose of applying the given knowledge in various spheres of economy, biology, ecology, natural protection and exploitation of natural resources; biological, biomedical, nature saving technologies, biological expertise and monitoring, evaluation, restoration and protection of territorial biological resources.

The sphere of professional activity of the graduates:

- science and research organizations, project and industrial organizations;
- bodies of natural protection and exploitation of natural resources;
- educational institutions.

Teaching staff

The staff of the department includes 3 Doctors of Science, one professor, 8 Associate professors and Candidates of Sciences.

The department has initially been running 3 problem groups, with the scope of research work done by the staff: ecology of plants, ecology of animals, human health ecology.

Training modules

The Master's Program includes laboratory courses and practical studies in the fields of: mathematics and common natural sciences, computer studies and modern information technologies, physics, chemistry, sciences about the earth, common biology, sciences about biological diversity, physiology, cell biology, genetics and evolution, biology of reproduction and development, ecology and rational exploitation of natural resources, human biology, introduction into biotechnology, basics of bioethics, fundamentals of life security,

variable modules; the curricula of whose presuppose the aims of forming correspondent skills and competences.

Experimental basis and collaboration

The potential of the staff of the department of bioecology, hygiene and public health, the scope of scientific interests, areas of specialization of individual lecturers allows holding complex activities focused on estimation of the ecological state of particular territories and objects, to monitor the environment and organize joint scientific research both at the level of the Institute of Fundamental Medicine and Biology and overseas partners.

The teaching staff participates in the work of the European Endangered Species Programme (EEP), whose aim is to preserve rare species. In 2014 there were organized trips to the working sessions and conferences: Madrid (Spain), Budapest (Hungary) and Sao Paolo (Brazil).

The department is in regular cooperation with the correspondent departments of Kazan State Medical University (KGMU), Kazan State Agricultural Academy (KGSMA), Moscow State University (MSU), Moscow Pedagogical State University (MPSU), The Institute of Limnology of the Russian Science Academy (St. Petersburg), the Kazan Zoological and Botanical Garden, the Volga-Kama State Biosphere Reservation, the National Museum of the republic of Tatarstan etc.

Placement

Scientific Research Institutes of the Russian Science Academy (NII RAS), institutions of the Ministry of Ecology and Natural Resources, the Ministry of Forestry, the Institute of the Problems of Ecology and Subsurface Resources Management of the Science Academy, Zoological and Botanical Gardens, institutes of Federal Service for Supervision of Natural Resource Usage, specially

protected natural sites (including reserved areas and national parks), postgraduate study.

Applying for Master's (Admissions)

A normative period of implementation of the basic educational training program for a Master's degree in Biological Monitoring of Ecosystems and Natural Protection is 2 years. Admission to the Master's program is based on competitive selection procedure. It is carried out in a form of examination in ecology with a subsequent interview.

The admissions committee, formed by the representatives of the Institute of Fundamental Medicine and Biology, carries out competitive selection procedure. The competition ensures admission of the most capable students, prepared for their further development.

To enroll into the competitive selection procedure the applicants should submit the following documents:

- A personal application form with a statement indicating the area of training and the chosen master's program;

- The original or a copy of the state document about higher education (bachelor's or specialist level); or another document recognized in the Russian Federation confirming holding a graduate degree of higher education (state bachelor's diploma, or specialist, or master's diploma);

- A copy of the identity document.

List of additional documents:

- The diplomas, certificates of continuing professional development;

- Diplomas of winners and/or laureates of research projects, design work and student competitions at various levels;

- Scientific work of the applicant in electronic or/and paper form (published or handwritten);

- Documents, confirming awards: scholarships from ministries, agencies, funds, etc.

- In addition, applicants can provide a letter of recommendation from her/his supervisor (recognized expert in the field, lecturer of high school).

Head of the master's program, Ilgizar I. Rakhimov

Ph.D., Dr.Sci.

Present member of the Russian Academy of Natural Sciences, professor of the Department of Biological Monitoring of Ecosystems and Natural Protection, Institute of Fundamental Medicine and Biology, Kazan (Volga Region) Federal University, Kazan, Russia