

## **06.06.01 Biological Sciences**

### **Radiobiology**

#### **Program objective**

training of researchers and academia in biology for study of wildlife and its laws; use of biological systems and eco-technologies for economic and medical purposes, as well as for protection and rational use of natural resources

Across the curriculum and research practical training, the following purposes are pursued:

- developing the skills of independent research activities;
- in-depth study of the theoretical and methodological foundations of biological sciences;
- mastering the theory and practice of modern medical and biological physics, ensuring the conduct of full-fledged independent research in this areas;
- deepening knowledge on the history and philosophy of radiobiology;
- improving the knowledge of a foreign language, focused on professional activities;
- preparation for teaching;
- writing a dissertation research and preparing it for defense

PhD are deepening knowledge on development, design and application of the following research devices, objects and technologies:

- biological systems of various levels of organization
- biological, bioengineering, biomedical, nature conservation technologies
- biological expertise and monitoring, restoration of territorial biological resources and natural environment
- ionizing and non-ionizing radiation and their effect on systems and biological objects of different levels of organization.

#### **Research and professional goals and activities**

- control of parameters characterizing the radiation-ecological situation;
- development of measures to limit the intake of radionuclides into products of plant and animal origin and into the human body;
- assessment of medico-biological and environmental consequences of radiation effects;
- planning of measures for the organization of radiation and environmental monitoring;
- assessment of the nature of the impact of nuclear facilities on the environment during their normal operation and in case of emergency.