

Annotation
Bachelor's program
14.03.02 Nuclear Physics and Technologies
Radiation Technologies in Life Sciences

1. Brief program description: purpose, duration, supervisor

Purpose - the Radiation Technologies in Life Sciences (RT) program is established to develop professional human resources for non-energetic application of nuclear and radiation technologies. RT program is an education program for bachelor degree in nuclear physics and technologies.

Duration – 4 years

Program mode – on campus

Program's supervisor – Alla Udalova, PhD, Doctor of Sciences, Professor of Nuclear Physics and Engineering Dept.

2. Curriculum features, majors and practical training. Attractions.

The program includes an academic and practical training to form knowledge, skills and expertise in basic engineering with an emphasis on three main specialized domains: radiation protection, radiation and nuclear technologies in agrosocieties and healthcare.

Graduates of the RT program have a comprehensive knowledge in fundamental physics and engineering sciences as well as professional knowledge and expertise in the field of specialization. It covers a number of interconnected topics, including dosimetry and protection against radiation, radiation installations and nuclear research reactors, medical radiology, biological and medical fundamentals of radiation effect in living matter, radiation applications in agriculture and food production, radiation chemistry, radiation monitoring, radioactive waste management, etc.

A unique advantage of the RT program is a balanced integration of the fundamental technical education with training modules in life sciences. Training practice is based on Resource Center of the University (Obninsk). To advance and masterize the non-energetic use of nuclear and radiation technologies, students are involved in up-to-date research activities being realized under the supervision of highly qualified university staff as well as experienced professionals from nearby research institutes and enterprises specializing in this field.

3. Career opportunities

There is a rising demand in professional staff training for international research centers of nuclear science and technologies as well as for industrial utilization of high-tech non-energetic nuclear technologies both in Russia and in many other countries. Specialists with combined competencies in technical and natural sciences are especially appreciated by employers and have many promising perspectives for individual carrier and success. Their potential employment could be connected to any fields and industries where radiation is used, including scientific centers and universities, irradiation installations in medicine and food production, supervision bodies ensuring the radiation safety of man and the environment, etc. These opportunities will continue to grow with new achievements of nuclear science and a wide propagation of peaceful applications of nuclear and radiation technologies in all spheres of human life.