

## Controlled fusion and plasma technologies

**Specialty:** 16.03.02 High-Tech Plasma and Power Facilities

**Education level/Study duration:** Bachelor/4 years

**Study language:** Russian/English (for English speaking students)

**Graduation department:** The program is implemented at the Plasma Physics Department (№21) of the Institute of Laser and Plasma Technologies of the NRNU MEPhI. The staff of the department is one of the leading Russian scientific schools, organizes major Russian and international conferences, and has more than 50 years of experience in educational and research activities with the participation of employees of leading Russian scientific organizations (NRC «Kurchatov Institute», TRINITI, GPI RAS, LPI RAS etc.) and a number of leading foreign experts.

**Abstract:** The aim of the program is high-quality physics, mathematics and engineering training of bachelors for further studies in profile magistracy and postgraduate studies or work in relevant high-tech industries and knowledge-based businesses.

The program is aimed at solving the problems of fundamental and applied science, including training of personnel for:

- National thermonuclear program and international ITER project;
- Academic institutes and centers exploring plasma and plasma-like matter, including extreme states, space and laboratory conditions;
- Innovative technological applications of plasma in the problems of production, ecology, medicine.

As a result of mastering the professional module of the program, a basic understanding is formed about the methods of diagnostics, parameter operation and production of plasma ("Low Temperature Plasma Physics», «Hot Plasma and Controlled Fusion», «Plasma Facilities» etc.).

A through-going practical part of the training is provided, which is performed on modern research, analytical and technological equipment, starting with laboratory work at junior courses and up to defending the final qualifying work performed in a scientific group led by scientists with world recognition.

**The list of companies for the practice and employment of graduates:** NRC «Kurchatov Institute», SC Rosatom: RFNC-VNIIEF, TRINITI, Project Center ITER, Institutes of RAS: (GPI RAS, LPI RAS, JIHT RAS, SRI, IAM RAS etc.), as well as high-tech companies.