**15.04.05 Engineering and technological support of machinery production**

**Program Summary**

**Program title:** Mechanical engineering.

**Program goals:** training of graduate students in the field of technological support of a pilot plant and mass production, creation and implementation of modern production processes and technologies, development and design of automation for scientific and industrial organizations of nuclear and other high-tech industries, forming universal and specialized competencies that contribute to the social mobility and competitiveness of the graduates in the labour market.

**Duration of study**: full-time education-2 years.

**Department**: Department of special mechanical engineering of SPTI NRNU MEPhI.

**Areas of expertise**: machine-building production of nuclear, energy and general engineering, main and auxiliary equipment, systems, tool machinery, tooling, tool design, automation and management, the establishment of technologically oriented engineering production, special equipment, components, materials and semi-finished products, based on the type of production system.

**Objects of professional activity**: nuclear engineering production and general engineering, main and auxiliary equipment, systems, tool machinery, tooling, tool design, automation and management; tools and methods of testing and quality control, nuclear, and general engineering.

**Curriculum features**: the curriculum complies with NRNU MEPhI higher education standards taking into the requirements of Rosatom state corporation as the main employer of graduates. The educational trajectory of the graduate student is formed taking into account their choice of disciplines. The core courses include a number of special disciplines, the study of which determined the direction of future industrial activity, such as: "Processing technology of special materials", "Materials in nuclear energy", "Design principles of primary atomic initiators", "Design principles of nuclear and non-nuclear munitions", etc.

Research work of students is carried out in close connection with the work conducted at the Department and in the offices of the Russian federal nuclear center – VNIIEF.

Graduates of the Department receive training for solving a wide range of tasks in the interests of scientific research and production organizations of the nuclear and other high-tech industries.

**Enterprises for internship and employment of graduates**:

Russian Federal Nuclear Center VNIIEF; enterprises of Rosatom state corporation.