**ABSTRACT OF BACHELOR’S EDUCATIONAL PROGRAM**

**15.03.05 DESIGN AND TECHNOLOGICAL SUPPORT OF ENGINEERING INDUSTRIES**

**1. Name of educational program**Training direction – **15.03.05 Design and technological support of engineering industries**  
Profile of training – **mechanical engineering**  
Qualification (degree): **bachelor**  
**2. Brief description of the program**  
**Objective:** training of highly qualified bachelors in the field of research and development for design and technological support of engineering facilities for nuclear engineering enterprises and other high-tech industries.  
**Department**: Mechanical engineering

**Duration of training**: 4 years (full-time), 5 years (part-time).

The educational program consists of 240 credits. One credit equals to 36 academic hours.

**3. The scope and object characteristics of graduates’ professional activity**

**Graduates’ professional activity area:**

– a set of facilities, methods and techniques aimed at creation of competitive engineering products and improvement of the national technological environment;  
– developing, implementing and monitoring rules, regulations, and requirements for different engineering products, their production technology and quality assurance;  
– development of new technological processes and improvement of existing ones for manufacturing of machine-building products and means of their equipment;  
– use of modern means of automation, design methods, mathematical, physical and computer-aided modeling of technological processes in machine-building and creation new ones;  
– supporting the effective performance of technological processes of machine-building, means of technological equipment, automation, control, inspection, diagnostics systems, product testing and market research for this direction.

**Graduates’ professional activity objects:**– mechanical engineering industries with main and auxiliary machinery, systems, instrument-making machinery, tooling, design means, mechanization, automation and management;  
– warehouse and transport systems of engineering industries;  
– machine building systems that provide production, management, technical and metrological maintenance, safety, environmental protection;  
– technical and design documentation, standardization and certification rules;  
– means and methods for testing and quality control of machine building products.  
  
4. **Basic organization**Training is realized for the Federal state unitary enterprise "Instrument-making plant" in the framework of the program "personnel training".

**5. Brief description of the curriculum**  
The curriculum is developed in accordance with Educational Standard NRNU MEPhI for the direction 15.03.05 "Design and technological support of engineering industries" (qualification “bachelor”). Special attention is paid to the study of following disciplines: strength of materials, machine parts and design principles, materials, processes and operations of forming, machine building machinery, mechanical engineering, computer technologies in engineering, and programming of machine tools with numerical control.

**6. Practice**  
– practical trainings are held for 2 weeks after the 2d and 4th semesters (full-time education) and for 2 weeks after the 4th and 6th semesters (part-time education) in the laboratories of the TTI NRNU MEPhI and focused on the forming of primary skills;  
– industrial training is held for 2 weeks after the 6th semester (full-time education) and for 2 weeks after the 8 th semester (part-time education) at the FSUE "Instrument-making plant" and is aimed on obtaining and mastering of professional skills in real industrial conditions;

– undergraduate practice is held for 4 weeks after 8th semester (full-time education) and for 4 weeks after the10th semester (part-time education) at the FSUE "Instrument-making plant" and is aimed on studying, gathering and analyzing of available documents and information concerning the subject of a graduate’s final qualification work (bachelor's thesis).

Начало формы

Конец формы