Mechanical engineering

Peter the Great St. Petersburg Polytechnic University

Degree or qualification is awarded: **Reasearch teaching fellow**

Language of study: **Russian**
Mode of study: **full-time**
Duration: **4 years**
Availability of free education: **yes**
Price: **250 800-262 200 rubles**

Programme webpage at the university website:
http://www.spbstu.ru/education/management-structure/postgraduate/areas-training-list/

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The program aims to prepare highly-qualified scientists and instructors in the area of engineering science and drive systems who possess the competence to design, evaluate the technical condition, computer-aided design of machinery and mechanisms, drive systems and machinery parts to assure safe functioning of equipment using newly-discovered physical effects and phenomena.

Specializations within this programme

Engineering science, drive systems and detail of cars

Preparation scientific and the research and educational personnel of higher qualification in the field of mechanical engineering, systems of drives and details of the cars with the ability to successfully solve problems in the sphere of activities related to the design, technical assessment, computer modeling of machines and mechanisms, drive systems, assemblies and machine parts to ensure the reliability of the machines during operation on the basis of new physical effects and phenomena identified in the research process.

Feature of the program "Engineering science, drive systems and Detail of Cars ", implemented in SPBPU is based on years of experience in the unit the training of mechanics to engineering. However, the educational program provides for the creation of new machinery with high performance, durability and reliability, manufacturability, low material consumption and cost with competitiveness in the global market not only in engineering but in other areas.

Friction and wear in machines

Preparation of scientific and research and educational personnel of higher qualification in the field of friction and wear in machines that have the ability to successfully solve problems in the sphere of activities related to the assessment of the technical condition, causes of failure, types and mechanism of wear of the contacting surfaces, computer simulation of tribological nodes to ensure the reliability of the machines during operation on the basis of new physical effects and phenomena identified in the research process.

Feature of the program "Friction and wear in machines", implemented in SPBPU is based on years of experience in the unit the training of mechanics to engineering. However, the educational program provides for the creation of new machinery with high wear resistance, durability and reliability of tribolo, low material consumption and cost with competitiveness in the global market not only in engineering but in other areas.

Materials Science (in mechanical engineering)

Preparation of scientific and research and educational personnel of higher qualification in the field of material science

focused on the industry "engineering", with the ability to successfully solve problems in the sphere of activities related to the development of new materials with specified complex of properties by establishing the fundamental regularities of the influence of composition, structure, technology, and operational and other factors on the properties of materials.

Feature of the program "Science for industry", implemented in SPBPU is based on years of experience in the unit the training of mechanics to engineering. However, the educational program provides for the creation of new materials based on theoretical and experimental studies of the fundamental relationships of the composition and structure of materials with physical-mechanical and operational properties to ensure reliability and durability of the materials and products possessing competitiveness in the global market not only in engineering but in other areas.