



National Research Nuclear University MEPhI
(Moscow Engineering Physics Institute)

Institute of Nuclear Physics and Engineering

Physics and thermophysics of nuclear power plants

Direction: **14.03.02 Nuclear Physics and Technologies**

Certificate, degree or qualification: **Bachelor degree**

Language of instruction: **English**

Duration and mode of study: **4 years, full-time**

Program curator: **Nikolay I. Geraskin, Vladimir S. Kharitonov**

Graduation department: Department of Theoretical and Experimental Physics of Nuclear Reactors (# 5), Department of Thermal Physics (# 13).

Main purpose of the Program: To provide graduates basic humanitarian, social, economic, mathematical and scientific knowledge. Provide graduates generic and subject-specialized competencies; prepare bachelors for admission to the Magistracy. To give in-depth knowledge of neutron-physical and Thermo-hydraulic processes occurring in reactor core, in normal operation, as well as in emergency and transitional modes.

The scope of professional activity: Research, design and technology, aimed for registration and information processing, development of theory, creation and use of nuclear installations, nuclear safety provision.

The objects of the professional activity: Nuclear reactors, mathematical models for theoretical and experimental studies of the phenomena and regularities in the field of reactor safety, proliferation and interaction of radiation with objects of animate and inanimate nature, ensuring the security of nuclear materials, facilities and installations of Atomic Energy and industry.

The brief description of the curriculum:

- 1) Deep physics and mathematics, as well as information technology training and competences in the field of critical technologies that provide reliable employment.
- 2) Unified basic training on humanitarian, scientific and general-professional disciplines for the Faculty within two years.
- 3) Basic special disciplines of the graduating chair (3-4th classes): "The neutron transport theory", "Physical theory of nuclear reactors," "Methods and tools for physical measurements," "Experimental reactor physics", "Engineering calculations and energy equipment of nuclear installations."

The graduates are offered to work at research institutes and enterprises of the State Corporation "Rosatom".

The program page on the MEPhI website:

http://eis.mephi.ru/AccGateway/index.aspx?report_url=/Accreditation/program_annotation_eng&report_param_pid=248&report_param_year=2016

http://eis.mephi.ru/AccGateway/index.aspx?report_url=/Accreditation/program_annotation_eng&report_param_pid=249&report_param_year=2016