

**Dual-Degree Academic Program « Applied Research in Gasdynamics and Thermal Power Engineering»
Joint with Al-Farabi Kazakh National University**

Major: 03.04.01 Applied mathematics and physics

Education level/Study duration: Masters/2 years

Study language: Russian

Graduation department: the program is implemented at the Chemical physics Department (№4) of the Institute for Laser and Plasma Technologies of the NRNU MEPhI. The Department was found in 1951. Nikolay N. Semenov, the Nobel Prize laureate, became its founder and first Head. The department has more than 50 years of experience in educational and research activities with the participation of employees of leading scientific organizations.

Abstract: The program is aimed at training professionals with deep physical and mathematical training and fundamental knowledge in the field of gasdynamics and thermal power engineering, industrial safety and ecology. Masters in this specialty are research engineers who are able to solve a wide range of problems in the applied research in gasdynamics and thermal power engineering, developing methods for computer modeling, design of energy devices and forecasting the consequences of man-made accidents and catastrophes.

Program Supervisor

Sergey A. Gubin – Head of the Chemical physics Department (Dr. Sci. in Physics and Mathematics, Professor)

Career opportunities

Graduates of this program apply their knowledge in physics and astronomy, condensed matter physics, mathematical modeling development and design of energy devices. This knowledge is vital for employment at leading Russian and foreign research centers and companies specializing in scientific software.

Areas of research and experts training: Applied Research in Gasdynamics and Thermal Power Engineering, Engineering and Physical Modeling, Experimental research on physical and chemical reactions in fluid, gas and solid; Theoretical research on wide-range equations of state for heterogeneous mixtures, products of combustion of chemical substances; Molecular dynamics simulation for thermodynamic properties of matter at extreme temperature and pressure.