



Master's program abstract

12.04.04 «Biotechnical systems and technologies»

Program Title: Biomedical nanotechnologies

The purpose of the program: Training specialists who can successfully work in the interdisciplinary field of activities related to the development of new nanomaterials and biomedicine technologies and their use in healthcare for early diagnosis and targeted treatment of socially dangerous diseases.

Educational level: master

Duration of training: 2 years

Area of professional activity:

biomedical nanotechnology, materials science for medicine, studies of the propagation and interaction of laser radiation with human tissues and organs, research, development and technology aimed at obtaining and evaluating biomedical diagnostic images, experimental research and introduction of materials and methods for biomedicine

Objects of professional activity:

nanomaterials and devices for photodynamic and sonodynamic therapy, hyperthermia, laser plants for obtaining and diagnostics of nanomaterials and nanobiosystems, materials for creating nanosensors of molecules for biomedical purposes, model objects of living nature for studying nanomaterials and new methods of medical diagnostics and therapy.

The list of enterprises for the practice and employment of graduates:

Russian and foreign research centers,
Institutes and enterprises of SC Rosatom,
Institutes of the Russian Academy of Sciences,
Universities of the Russian Federation and foreign countries, small innovative enterprises, etc.