**ANNOTATION**

of educational program

**14.04.02 Nuclear Physicsand Technology**

**Master's program**: Reactor Materials Science

**Program Name**: 14.04.02 Nuclear physics and technology, Master's program "Reactor Materials Science."

**Program Objectives**: The aim of the master's program "Reactor materials science" is the training of research highly qualified staff for professional activity in companies and research centers working in the field of nuclear energy.

**Terms of full-time education** are 2 years (Master).

**Graduate departments**: Department of Reactor Materials Scienceand Radiation Safety.

**The area of professional activity**: the area of professional activity of graduates is the research in the field of nuclear energy fuel cycle aimedat the creation and testing of new structur almaterials and fuel, construction of experimental facilities and obtaining data about the interaction of radiation with matter, improving the design of nuclear power.

The program, which is planned for training staff: "Nuclear Power Technologies of New Generation in 2010-2020".

**Objects of professional activity**: Graduates of the program are focused on carrying out complex high-end domestic and outside the reactor experiment susing the most modern methods, devices and systems, including the calculation and construction of experimental units, processing of the research results, programming algorithms of model experiments.

**Features of the curriculum**: studied courses are focused on the integration of students in the scientific community of nuclear field "Introduction to the specialization: the history of nuclear science and technology", "Marketing and management in the nuclear industry", "Urgent issues of radiation physics";the study of Computer and Mathematical method sapplied to the problems of reactor materials science "Programming and computer methods of analytical calculations", "Mathematical methods of experimental data processing ";the in-depth specialization "Radiation physics of solids", "Methods and equipment of reactor experiments", "Safety of the nuclear fuel cycle ","The principles and organization of work in the "hot" chambers and boxes. "

The curriculum includes individual work with students. From the first semester the yareappointed with supervisor sunder their directions they carry out scientific and research work at the basic enterprise one, two, and then three days a week. Threemonthsareallocated for the preparation of the master's research work. Basic company is Dimitrovgrad Scientific Research Institute of Atomic Reactors.

Obtained competencies enable graduates to be engaged in ongoing research work immediately .

Employment is mainly possible in enterprises and scientific centers of Rosatom State Corporation and in higher education institutions. Best masters continue their postgraduate studies.