

**MEPHI SPECIALISTS TRAINING ON NUCLEAR MATERIALS CONTROL,  
ACCOUNTING AND PHYSICAL PROTECTION**

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**ПОДГОТОВКА В МИФИ СПЕЦИАЛИСТОВ ПО УЧЕТУ, КОНТРОЛЮ  
И ФИЗИЧЕСКОЙ ЗАЩИТЕ ЯДЕРНЫХ МАТЕРИАЛОВ**

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Educational program to train specialists on non-proliferation problems and nuclear materials control, accounting and physical protection systems (NMCA&PP) at the Science Master's level was developed and is being realized in Moscow State Institute of Engineering and Physics at the support of the USA Ministry of Energy. The program is based on a conception of the integrated NMCA&PP systems, developed by the leading scientific centers of Russia and USA National Laboratories.

The program is intended to train students who already got the Bachelor's degree on physical and technical subjects. The united methodological base of the program comprises lecture courses, practice in laboratories and computer programs.

The educational program contains the following parts for training the students:

1. Deep scientific and technical knowledge;
2. System approach to designing and analysis of the NMCA&PP systems;
3. Knowledge of scientific and technical principles, means, devices, facilities and procedures used in the NMCA&PP systems;
4. Judicial, international and economical aspects of nuclear materials management;
5. Application of computer and information technologies for nuclear materials control and accounting;
6. Extensive practice in laboratories, using the most up-to-date equipment and devices used in the worldwide practice of NM control.

The educational program "Non-proliferation Problems and Nuclear Materials Control, Accounting and Physical Protection" is realized within the framework of the MEFHI magistracy "Physical and Technical Issues of Atomic Engineering" ("Technical Physics" field). The program provides for training specialists during four terms.

The training of students with the Bachelor's degree was started on September 1, 1997 according to the developed master program. A significant scope of works to develop and realize the training program was done jointly with specialists of other scientific organizations during the past period. The first ensemble of the students successfully mastered the program developed for two terms. At present, the students define subjects within the framework of practical activity, and get the first scientific outcomes for development of future master thesis papers to be defended at the State Board of Examiners' presence at the end of the next term in spring.

During the past school year, it was possible to adjust the syllabus, make amendments in and revise the lecture courses. Tutorials for the lecture courses are being developed. The second ensemble of future masters started training on the program in September this year. Fundamental physical and technical training, that is proper for the MEFHI, in conjunction with unique capabilities of gaining the practical skills to apply devices and NM control systems will allow the students to become a high-qualified specialists in the field of non-proliferation and the NMCA&PP systems.

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