

Information security management and technology

Samara National Research University

Degree or qualification is awarded: **Master's Diploma**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **yes**

Price: **147 400 RUB per year**

Programme webpage at the university website:

<https://ssau.ru/english/education/programs/172/b54fc4a0-35a7-11e9-a0df-005056a7430c#program-desc>

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Graduates of "Information security management and technology" Master's program are trained for the tasks requiring in-depth fundamental and professional knowledge and are capable of being employed as research workers and managers in the field of information security.

Therefore the training of Masters in Information security focuses on development of scientific research skills:

- ability to analyze fundamental and applied problems of information security in the conditions of emerging contemporary information society;
- ability to carry out collection, processing, analysis and systematization of scientific and technical information on the subject of research, choose methods and means of problem solving, develop plans and programs of scientific research and technical development projects;
- ability to conduct experimental studies of the objects' security using relevant physical and mathematical methods, technical and software tools of experimental results' processing;
- ability to process the results of experimental research, prepare scientific and technical reports, make reviews, prepare scientific papers and speaking reports based on the results of the performed research.

The main advantage of the program is its close interaction with organizations engaged in the field of information security.

The graduates acquire skills encompassing a range of problems related to the development and operation of information security tools and systems, to the procedural, institutional and technological information security methods for various organizations: state institutions, security agencies, budgetary organizations, banks and other organizations and institutions, regardless of the ownership form.

Brief characterisation of the programme

The Master's program is intended for training of highly skilled specialists in the field of information support facilities protection based on condition of existence of threats in the information environment. Graduates are trained for the tasks requiring in-depth fundamental and professional knowledge and are capable of being employed as research workers and managers in the field of information security.

The professional pursuits of the Masters are:

- fundamental and applied problems of information security;
- information support facilities, information resources and technologies, computer, automated, telecommunication, information and information analysis systems;
- tools and technologies of information security assurance and information protection;
- expertise, certification and monitoring of protection of information and information support facilities;
- methods and tools for design, simulation and trial operation of systems, tools and technologies for information security assurance at the information support facilities;

- information security management and control;
- educational process in the field of information security.

Thanks to their newly-acquired common cultural, general professional and core competencies, graduates are able to fulfill their potential in various professional fields:

- design;
- research work;
- monitoring and analysis;
- pedagogy;
- administration and management.

Features (advantages) of the programme

The main advantage of the program is provision of in-depth fundamental theoretical and practical knowledge in the field of information security assurance, as well as close cooperation with organizations engaged in information protection.

The graduates acquire skills encompassing a range of problems related to the development and operation of information security tools and systems, to the procedural, institutional and technological information security methods for various organizations: state institutions, security agencies, budgetary organizations, banks and other organizations and institutions, regardless of the ownership form.

The training program focuses on development of scientific research skills:

- analysis of fundamental and applied problems of information security in the conditions of emerging contemporary information society;
- development of plans and programs of scientific research and technical development projects, preparation of individual tasks for performers;
- carrying out scientific research with use of relevant physical and mathematical methods;
- preparation of reports, papers, presentations for research conferences based on results of research.

The classes are delivered by doctors and candidates of science working in the field of information protection, with a vast pedagogical, practical and scientific experience.

The best students can be deeply involved in research activity, conferences and grants.

Besides, the graduates have an opportunity to continue their studies in a postgraduate program.

Academic programme structure (curriculum features)

The total volume of the academic program is 120 credit course units (CCU).

The main feature of the curriculum is close interconnection of all its cycles (natural sciences, technical and procedural/institutional disciplines) during the entire period of study. For this reason, the program graduates become universal specialists capable of applying their newfound knowledge, abilities and skills in any industry.

The curriculum consists of the following academic blocks:

- Block 1 - "Disciplines (modules)" - 60 CCU;
- Block 2 - "Practical training, including scientific-research work" - 51 CCU;
- Block 2 - "State final certification" - 9 CCU.

Future profession

Upon graduation the young specialists can be employed as information security assurance officers in various organizations: state institutions, security agencies, budgetary organizations, banks and other organizations and institutions, regardless of the ownership form.

In the course of fulfillment of tasks aimed at information protection of a company, the graduates have an opportunity to apply the whole range of skills acquired during the training:

- systems analysis of the field of application, identification of threats and information systems vulnerability

assessment, development of requirements and criteria for assessment of information security aligned to the information systems development strategy;

- justification of the choice of principles of organization and functional structure of the software, hardware and technical base of the systems and tools of information security assurance at the information support facilities according to the national and international standards;
- design and development of systems, packages, tools and technologies of information security assurance;
- development of plans and programs of scientific research and technical development projects, preparation of individual information protection tasks for performers;
- carrying out scientific research with use of relevant physical and mathematical methods;
- management of operations aimed at improvement, updating, unification of systems, tools and technologies of information security assurance according to the legal requirements and regulatory documents of the Federal Security Service of the Russian Federation, Federal Service for Technical and Export Control.

With their fundamental education in the field of information security and proficiency in all the required aspects – design, technology, operation, experiment and research, management and administration – the graduates are in high demand with any organization, regardless of its ownership form, since information security is a core element of its resilience and competitiveness.

Specializations within this programme