**Welcome to the Master’s Program**

Master's degree in mathematics with a specialization in Algebra with Cryptography and Coding: The purpose of the program – training of high–level specialists with deep knowledge of algebra and its applications in logic, computability, computer and mathematical modeling, capable of analytical work in any sphere of the national economy-in the private sector, in public authorities, in educational and scientific institutions, ready to continue their studies in domestic and foreign graduate schools. The best students are provided with grants for training.

The new areas of research and teaching, which are of great applied importance, include algebraic methods in Economics, the theory of quasicrystals, cryptography, coding theory and information protection. This program will suit anyone who is interested in mathematics and wants to apply his or her skills to problem-solving and for creating new mathematical models. It also gives you the possibility to start an academic career.

You also study general courses in mathematics and modeling besides courses in algebra, number theory, cryptography and coding theory. As with more General degrees in mathematics, a master in algebra also involves a thorough study of number theory, topology, and methods of applied mathematics. However, students in this type of program specialize in algebra often ending up with their studies in mathematical logic.

Through a unique combination of interdisciplinary coursework and cutting-edge research, the programs will enable students to apply techniques and tools of data science to applications drawing on appropriate and relevant concepts and models from the engineering, natural or social sciences. The emphasis is on understanding and working within a corporate environment and integrating all the skills and knowledge that have been acquired from previous courses into a solid base to progress from into students’ professional life.

**Career Opportunities**

The graduates of the Master’s Program will be exceptionally well equipped to harness and communicate the full value of data to the employer organizations. They are able to extract knowledge from different sources. This allows graduates to quickly get involved and be effective in almost any field of activity — from computer or financial to production management and politics.

**Program Details**

The syllabus of the Master’s Program includes several major courses delivered at each semester and combining both mathematical and its applications study.

The core courses are the following:

Applied graph theory

Algorithmic systems

Coding theory

 Algorithmic problems of algebra

 Computer algebra

Game theory

Matrix analysis

Cryptography

Linear models in Economics

Theory of quantum computing