

Mathematics

Kazan (Volga Region) Federal University

Language of study: **Russian**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **148 620 RUB per year**

Programme webpage at the university website: <https://kpfu.ru/eng/academic-units/physics-mathematics-and-it/limm>

Programme curator: **Rauf Sabirov**

Tel.: **+78432337027**

E-mail: admission@kpfu.ru

Profile: «Mathematics in digital economics»

The purpose of the program is complex and quality training of qualified competitive specialists in fundamental mathematics possessing modern knowledge of information technologies.

Learning process is based on the following principle.

During the first two years students study basic courses such as calculus, algebra, mathematical logics, discrete mathematics, analytic and differential geometry, number theory, differential equations, programming technologies and languages. Beginning from the third year, along with basic courses of complex analysis, functional analysis, numerical methods, optimization theory, probability theory, mathematical statistics; variable disciplines are also suggested such as: stochastic financial mathematics, machine learning, algorithm theory, game theory, queueing theory, supply chain management, reliability theory, resource management, catastrophe theory, etc. Students, studying according to the general profile, have a possibility to choose individual trajectories for in-depth training of the most attractive for them fields of mathematics.

In the study of disciplines various mathematical packages are used such as Wolfram Mathematica, Maple, MatLab, and Sage. Students learn to prepare mathematical texts with the help of LaTeX and MathML, to program in Python, C++, and R languages.

On the third year students prepare research course works. On the fourth year they fulfill graduating works, which either are an independent scientific research or usage of mathematical tool for solving problems of digital economy and creating of new software.

Main professional competences of graduates.

A graduate who have completed the undergraduate program is ready to:

- usage of the main concepts, ideas, and methods of fundamental mathematical subjects;
- usage of methods of mathematical and algorithmic modeling in solving theoretical and applied problems;
- data collection and processing with the use of modern methods of information analysis and computer science;
- usage of mathematical methods of information processing;
- participation in the work of seminars, conferences, and symposiums, preparing of scientific publications;
- teaching physical and mathematical courses in general and professional educational organizations.

Area of professional activity where our graduates have the advantage

Research, business analytics, analysis of financial markets, logistics, software development for production and

technological processes, organizational and managerial activities.

Our graduates are also in demand in teaching mathematics and informatics.

After obtaining bachelor's degree in mathematics you can continue learning in magistracy of the Institute of Mathematics and Mechanics as long as of other divisions of Kazan University and other universities.

Specializations within this programme