Slovak

General characteristics of the study programme

Name of the study programme:	**Mathematics**
Field of study:	9.1.1 Mathematics
Level of study:	2nd
Form of study:	standard
Standard length of study:	2 years
Academic degree confered:	Mgr.
Guarantor of the study programme:	prof. RNDr. Ján Filo, CSc.
Expected number of students in class:	30

Programme sequentiality

The master degree program Mathematics covers the former master programs Mathematical analysis, Mathematical structures and Numerical analysis and scientific-technical computations. The program follows the 1st degree bachelor program in Mathematics at the Faculty of Mathematics, Physics and Informatics UK. It is opened, however, also to graduates of similar programs from other universities. The program is followed by the 3rd degree doctoral programs: Applied mathematics, Discrete mathematics, Geometry and topology, Mathematical analysis and Numerical analysis and scientific-technical computations.

Brief history of the study programme

As the master degree program Mathematics covers the former master programs Mathematical analysis, Mathematical structures (also known before under the name Systems theory) and Numerical analysis and scientific-technical computations, it has a longlasting tradition.

Mathematics has been studied at Comenius University since Faculty of Natural Sciences, Comenius University was founded in 1940. Study programmes of mathematics, physics and informatics were moved to newly founded Faculty of Mathematics and Physics, Comenius University that separated from Faculty of Natural Sciences, Comenius University and was renamed to Faculty of Mathematics, Physics and Informatics in 2000.

Requirements on study applicant (Requirements for acceptance)

The written part of the State subjects examinations of bachelor study of Mathematics serves as the entrance examinations. Note that the State subjects cover main subjects of study programme (compulsory subjects).

Educational and professional objectives

The goal of the program is to produce active and creative mathematicians, capable of contributing in both academic and industrial enviroments.

Subject focus and brief description

The only compulsory subject is the thesis. The thesis is acknowledged by 20 credits from the total amount of 120 credits required to be collected during the master´s study. All compulsory facultative subjects of the program are divided into three groups. A student will choose one group of subjects and from the rest two groups he will choose subjects in the total amount of 64 credits. The rest (36 credits) forms facultative subjects. Three groups of compulsory facultative subjects correspond to former master programs Mathematical analysis, Mathematical structures and Numerical analysis and scientific-technical computations.

Graduates' profile

Graduates will get orientation in a representative sample of key disciplines of modern mathematics and acquaintance with the most important, both abstract and concrete, including their interplay. They will be able to solve problems from various areas of mathematics using the methods of several mathematical disciplines and computers. Their theoretical knowledge will be tightly connected with design and development of mathematical models and their applications in other domains of science and social issues. Not the least, they will acquire the capability of critical and logical thinking, learning new facts, as well as flexibility in their modification and aplplication.

Graduates' competence and job opportunities

The best ones from among our graduates are expected to continue in doctoral (PhD) study, either at our Faculty or at other universities in Slovakia or abroad. The graduates have the opportunity to find their jobs as university teachers, scientific workers in fundamental research or as members of researh teams in industry, software development or financial sector - everywhere it is necessary to build mathematical models of various phenomena and situtaions and search on their base for responses to questions of the corresponding scientific area, to design technical solutions or make decisions. As it can be documented by our graduates, successfully progressing in their PhD study abroad or holding important positions in academic enviroment , banks, etc., it can be expected that the level of our graduates will continue to be comparable with those of similar majors at respected universities in developed countries (EU, USA, Canada, Russia, Japan and Australia).

Specific features of the programme

Study of mathematics at FMFI UK enables students to continue in the valuable postgraduate study programmes in Mathematics: Applied mathematics, Discrete mathematics, Geometry and topology, Mathematical analysis and Numerical analysis and scientific-technical computations.

Curriculum