Discrete Mathematics and Combinatorial Optimization

Novosibirsk State University

Degree or qualification is awarded: **Master of science in Applied Mathematics and Informatics**

Language of study: **English**
Mode of study: **full-time**
Duration: **2 years**
Availability of free education: **yes**
Price: **4 300 USD per year**

Programme webpage at the university website:
https://english.nsu.ru/admission/programs/master-s-degree-programs-english/discrete-mathematics-and-combinatorial-optimization/

Programme curator: **Kseniya Shmugurova**
Tel.: **+7-383-3634292**
E-mail: interstudy@lab.nsu.ru

During the last century the discrete and computational mathematics got boosting development which is connected mainly with the widespread involvement of computers and computer technologies into the everyday life. This required the development of new methods of studying, processing, transmitting, storing, protecting and analyzing the large volumes of information and also training the specialists knowing all these methods. A modern specialist in discrete mathematics and combinatorial optimization has to possess a deep knowledge of graph theory, scheduling theory, coding theory, cryptography, operations research, data analysis methods, mathematical modeling, linear, convex and integer programming, complexity theory, algorithms development and analysis, etc.

The purpose of the Master Educational Programme "Discrete Mathematics and Combinatorial Optimization" is training highly qualified specialists in the following areas:

- Operations research
- Optimization methods
- Discrete analysis
- Graph theory
- Scheduling theory
- Coding theory
- Algorithms
- Data analysis.

Such specialists should be capable of working in research institutes, universities, software and engineering companies, etc.

Specializations within this programme