

Division: *Institute of Natural Sciences and Mathematics*

Academic programme: *01.04.01 Mathematics, Non-classical Equations of Mathematical Physics*

Programme length: *2 years*

Programme level: *Master's degree*

Language of instruction: *Russian*

Programme description: *Realities of contemporary times increasingly require from a professional not specific knowledge in individual disciplines, but the ability to approach problem solving in a comprehensive manner, using methods and techniques of various spheres of human activity. In this regard, the special role of mathematics as a universal means of analyzing data from any subject area should be noted. That is why the academic programme 01.04.01 Mathematics is popular and in demand. Graduates of the Department of Equations of Mathematical Physics are prepared for practical and research work in various fields of activity: expert and analytical institutes and centres, specialized research institutes, universities, industrial enterprises, trade and small business organizations, i.e. wherever knowledge of mathematics, the ability to build and use mathematical models, create and apply computer technologies, information processing and control systems are required. Thus, graduates of the department will be able to continue their professional careers both in academic science and in the field of applied research and management.*

Main programme-specific classes:

- *Function Spaces and Differential Operators*
- *Computer Technologies in Scientific Research*
- *Mathematical Fundamentals of Artificial Intelligence*
- *Sobolev Type Linear Equations*
- *Numerical Methods for Solving Problems of Mathematical Physics*
- *Stochastic Differential Equations*
- *Stability of Solutions to Sobolev Type Equations*
- *Semilinear Sobolev Type Equations*
- *Initial-Final Problems for Sobolev Type Equations*
- *Introduction to the Theory of Riemannian Manifolds*
- *Sobolev Type Equations on Manifolds*
- *High Order Sobolev Type Equations*
- *Sobolev Type Equations on Graphs*

Programme manager: *Georgy A. Sviridiuk, Doctor of Science (Physics and Mathematics), Professor*