

DATA SCIENCE AND DIGITAL TRANSFORMATION

MASTER'S PROGRAMME DEGREE



PROGRAM ADVANTAGES

- Opportunity to receive education in the field of big data processing completely in a distance format using the most modern teaching tools and technologies.
- Acquiring skills in the application and use of digital technologies, methods of search, processing, analysis, storage and presentation of various data.
- Ability to design software products, create high-performance code in popular programming languages.
- Comprehensive development of students' research skills, the possibility of their participation in the implementation of scientific projects in cooperation with leading enterprises of the IT industry.
- The high level of mathematical training and computer modeling allows graduates to work successfully in state and commercial organizations in various sectors of the national economy.



STUDYING PROCCESS

120 educational credits. Lectures, practical classes, self-study work.

GENERAL EDUCATION DISCIPLINES

- Foreign Language in the Professional Activity of a Master.
- History and Methodology of Science.

MATHEMATICAL DISCIPLINES

- Applied Problems of Mathematical Modeling.
- -• Numerical Methods for Solving Mathematical Modeling Problems.

DISCIPLINES ON PROGRAMMING TECHNOLOGIES

- Python programming technologies.
- C ++ programming technologies.

DATA SCIENCE AND ARTIFICIAL INTELLIGENCE DISCIPLINES

- Artificial Intelligence Systems.
- -• Big Data Mining.
- Artificial Neural Networks.
- -• Algorithmic Game Theory.
- -• Machine Learning in Business.
- Cognitive Information Technologies in Artificial Intelligence.

DISCIPLINES IN DIGITAL TECHNOLOGIES

- Introduction to Data Science and Digital Transformation.
- End-to-end Digital Technologies.
- Virtual and Augmented Reality Technologies.
- IT management.

PRACTICAL ACTIVITY

- Scientific and research work.
- Graduation thesis.
- Works and projects in the form of term papers.
- Internship.



HEAD OF THE PROGRAMME

SALTYKOVA OLGA ALEXANDROVNA



Assistant of Professor of the Department of Mechanics and Mechatronics. Ph.D, docent.

RESEARCH INTERESTS:

mathematical Modeling, Nonlinear Dynamics, Numerical Methods, Information Technology, Mechanics.