Master's Degree program "Applied Mathematics and Computer Science in the socio-economic Sphere and Education"

International educational program:
✓ **Amanzholov University (Kazakhstan)**
✓ **DTPI (Uzbekistan)**

APPLIED MATHEMATICS AND COMPUTER SCIENCE 01.04.02

ALTAI STATE UNIVERSITY

BARNAUL, Altai Krai, Russia

Head of the Master's Degree Program:

Zhuravleva Vera Vladimirovna

PhD, Associate Professor of the Department of Theoretical Cybernetics and Applied Mathematics, Institute of Mathematics and Information Technology, AltSU

01.04.02 – APPLIED MATHEMATICS AND COMPUTER SCIENCE

Master's Degree program "Applied Mathematics and Computer Science in the socio-economic Sphere and Education"

PROFESSIONAL STANDARDS:

06.042 «Big Data Specialist»;

01.003 «Teacher of additional education for children and adults»

приоритет2030^
лидерами становятся

2022 year - 32 students, of these, 12 are foreign

2023 year - 34 students, of these, 21 are foreign

2024 year - 35 students

Partner universities:

- **Amanzholov East Kazakhstan University (Ust-Kamenogorsk, Kazakhstan)**
- **Denau Institute of Entrepreneurship and Pedagogy (Denau, Uzbekistan)**

- **Employment in the IT-field, or in the field of additional education**
- **The opportunity to participate in scientific and applied projects of the department and partner organizations**
- **Scholarships and financial support for applicants to budget places**

Head of the Master's Degree Program: **Zhuravleva Vera Vladimirovna, PhD**

TYPES OF GRADUATE ACTIVITIES

- *Development and management of analytical projects for big data research;*
- *Development and application of artificial intelligence algorithms and methods;*
- *The use of special technologies (ML, VR/AR, cloud) in the tasks of applied data analysis;*
- *Development of mathematical models and information technologies for solving planning and forecasting problems in social and economic systems;*
- *Project work in the field of management of socio-economic systems;*
- *Development of software and methodological support for an additional general education program in computer science, programming and applied mathematics*

You will study in the 1st year …

1 semester

1. Communication and activity module:

- Foreign language
- Methodology of scientific research
- Team building and leadership skills

2. General professional module:

- Machine learning methods

3. Profile module:

- Time series analysis
- Python for scientific research and modeling of complex systems
- Geoinformatics and distributed databases

For graduates of the specialty and international students, it is possible to transfer "Foreign language", "Intercultural interaction in the modern world"

2 semester

1. Communication and activity module:

- Intercultural interaction in the modern world

2. General professional module:

- Big Data Statistics

3. Profile module:

- Design and project management in professional activities
- Multi-user information systems
- Simulation modeling
- Processing data from UAVs
- Cloud technologies

4. EDUCATIONAL PRACTICE: Technological (design and technological) practice

You will study in the 2nd year …

3 semester

1. General professional module:

👁 Pattern recognition

2. Profile module:

Neural networks. Deep learning

Virtual and augmented reality technologies

3. The module of pedagogical technologies:

☑ Methods of teaching IT disciplines

⏭ Innovative technologies in the educational process

4 semester

1. Profile module:

☑ Olympiad programming

2. TECHNOLOGICAL PRACTICE: pedagogical practice

3. TECHNOLOGICAL PRACTICE: design and technological practice

4. PRE-GRADUATE PRACTICE

5. DEFENSE OF THE MASTER'S THESIS

THE TRAINING FORMAT IS FULL-TIME!

EDUCATION IN RUSSIAN!

OUR INDUSTRIAL PARTNERS

Комитет
по образованию
города Барнаула

- YANDEX
- SBER
- POSTGRES PROFESSIONAL
- Barnaul Education Committee
- Altai Institute of Digital Technologies and Educational Quality Assessment named after O.R. Lvov

PostgreSQL

Яндекс

GET THE MOST MODERN EDUCATION!