Division: *Institute of Natural Sciences and Mathematics*

Academic programme: *05.04.06 Ecology and Use of Natural Resources, Environmental Safety*

Mode of study: *full-time*

Programme length: *2 years*

Programme level: *Master's degree*

Language of instruction: *Russian*

Programme description: *Graduates are highly qualified ecologists who possess competencies sufficient both for employment at high-tech enterprises and for continuing their scientific careers anywhere in the world.*

The objects of professional activity are natural, anthropogenic, natural and economic, ecological and economic, industrial, social, public, territorial systems and structures at the global, national, regional and local levels, as well as state planning, control, monitoring, examination of environmental components of all forms of economic activity; education, demographic processes, sustainable development programmes at all levels.

Master's degree students actively use the world-class equipment of the Nanotechnologies Research and Education Centre when performing dissertations, which allows them to master modern world research technologies.

Graduates are in demand both in design and control organizations, and in enterprises of the real sector of the economy (metallurgical, machine-building, oil and gas processing and transportation, pharmaceutical enterprises), as well as in scientific organizations.

The programme involves project-based learning.

Main programme-specific classes:

- *Biological Monitoring of the Environment and Water Bodies*
- *Nanotechnologies for Technological Safety*
- *Special Methods of Purification of Industrial Water Systems*
- *Organization of Work on the Utilization of Heat and Power Flows and Fluorine Materials*
- *Fundamentals of Eco-design and Expertise of Environmental Safety*
- *Sustainable Development*
- *Modern Problems of Ecology and Nature Management*

- *Ultra- and Nanodisperse Systems and Technologies*
- *Methods and Means of Environmental Control*
- *Modern Methods of Search, Systematization and Processing of Scientific and Technical Information*
- *Assessment of Environmental Safety in the Process of the Introduction of New Technologies*
- *Assessment of the Impact of Enterprises' Activities on Water Bodies*
- *Methods for Determining and Assessing Environmental and Economic Damage from Environmental Pollution*
- *Evaluation of the Economic Efficiency of Environmental Protection Measures*
- *International Cooperation in the Field of Environmental Protection*
- *Environmental Audit*
- *Modelling of Technological and Natural Processes*
- *Environmental Management of Enterprises*
- *Assessment of Technological Risks in the Process of the Introduction of New Technologies*

Programme manager: V*iacheslav V. Avdin, Doctor of Sciences (Chemistry), Associate Professor, Head of the Department of Ecology and Chemical Engineering*