



## LEARNING AND STUDENTS

### Educational Opportunities

The [educational programs](#) of INRTU logically and purposefully contribute to the achievement of SDG 6. The university directly trains highly qualified specialists to address key challenges in this field: at the undergraduate level — in the specialty "Water Supply and Wastewater Disposal", at the specialist level — in "Applied Geology", which is crucial for studying and protecting groundwater, at the master's level — in "Innovative Technologies in Water Supply and Wastewater Disposal," focusing on modern solutions. At the postgraduate education level — in water supply, sanitation, and construction systems for water resource protection. Thus, INRTU creates an educational cycle for professionals capable of ensuring clean water, developing sanitation, and protecting aquatic ecosystems.



The university pays great attention to the [development of science, education and industry](#). A prime example is the joint master's program "Ecology and Green Energy" with the Harbin Institute of Technology (HIT), implemented with the support of En+. This company supported the organization of [Summer Environmental School](#) for graduate students, deepening international cooperation and practice-oriented education and research in ecology and sustainable water management.

## RESEARCH

### Chemical Analytical Laboratory

The Chemical Analytical Laboratory of the Siberian School of Geosciences (SSG) has opened a new sector for natural water sample analysis, having completed the procedure to expand its scope of accreditation under ISO/IEC 17025.



INRTU researchers [can now determine the concentrations of compounds](#) that serve as markers of negative anthropogenic impact on the environment: petroleum products, anionic surfactants, and macro-components. This significantly expedites and enhances the quality of geo-environmental work conducted by the school in Russia and abroad under the Program Priority 2030.

### PUBLIC ENGAGEMENT

As a member of the Baikal Scientific and Educational Center, INRTU actively collaborates with local, regional, and national communities on water resource safety issues..



On global level, INRTU collaborates with Harbin Institute of Technology, and in cooperation with Chinese scientists opened the International [Joint Research Center for Pure Water in 2024](#). INRTU discuss issues of [water resource management](#) and the protection of Lake Baikal. The current task is to create digital databases using artificial intelligence. Through joint efforts involving the company En+, the center's participants aim to reduce the anthropogenic load on nature and improve the quality of freshwater.



In 2024, INRTU delegation participated in the international [Water Challenges Workshop in Harbin](#). Meeting participants put forward initiatives to promote environmental innovations, water purification and rational use technologies, create an extensive forum with the participation of scientists and business representatives, establish joint training of environmental specialists, enhance academic exchange, and advance projects for master's and PhD programs.

## OPERATIONS

### Water Treatment and Supply System

The University adheres to the Policy on Preservation of Aquatic Ecosystems by contributing to the development of action programs for the organization of rotary water supply (Para II.1.2-II.1.3). In line with the policy there is an indirect process of sewage treatment at INRTU. It exists through the city municipal unitary enterprise [«Vodokanal»](#) which is responsible for water quality, and INRTU has a sewage reception contract with this organization. The company's mission is to provide uninterrupted quality water and canalization services to the city's residents and other consumers, and to create green environment for the Angara river basin. Also according to the organization charter MUE Vodokanal is obliged to carry out production, transportation and sale of drinking water quality; to control quality and quantity of production wastewater, as well as quality of preliminary treatment on local constructions, to monitor the quality and quantity of waste water used in public sanitation.

### Water Pollution Control in Campus Area

INRTU is engineering water pollution on campus to prevent contaminated water from entering the water supply system. The Laboratory of Environmental Monitoring of Natural and Technogenic Environments regularly checks water quality (physical, chemical, and biological parameters)



The Laboratory of Environmental Monitoring of Natural and Technogenic Environments conducts comprehensive monitoring studies of environmental objects using modern analytical [equipment](#) according to certified methods; determination of hazard classes for industrial waste using calculated and experimental biotesting methods; research and practical work on modernizing and developing wastewater treatment methods. The laboratory's equipment allows for the detection of a wide range of pollutants in broad determination ranges in natural and wastewater, in atmospheric air of populated areas and work zones, in objects of plant and animal origin, in soils, ground, bottom sediments, silts, as well as in production and consumption waste.

