LEARNING AND STUDENTS

Programs for environmental protection

INRTU continues to work hard to implement more educational programs in the field of fresh water ecosystems. Presently, it offers the following topical bachelor and master programs: Water Management; Environmental Protection and Resources Conservation; Construction – Innovative Technologies in Water Supply and Sanitation. Additionally, there is a variety of programs including courses on freshwater ecosystems such as Technosphere Life Safety; Technological Processes and Industries Safety; Ecology and Green Engineering; Renewable Energy; Public Safety and Ecology Risk Management; Production and Consumption Waste Disposal and Recycling; Ecological Safety; Groundwater Prospecting and Exploration and Engineering-Geological Surveys.

INRTU offers a Regional Ecology course (Baikal Studies, term 3) as part of the Safety of Technological Processes and Productions program. The course objective is to cultivate students' environmental consciousness and enrich their understanding of Lake Baikal, a UNESCO World Natural Heritage Site. The course covers environmental challenges, such as poaching, and techniques for rejuvenating the population of the indigenous fish species, the Baikal omul.

The Water and Life Forum for students and schoolchildren

Water usage issues are discussed annually by school children and students at the INRTU-hosted Water and Life Forum. The forum raises awareness amongst the youth on the significance of aquatic ecosystems in all human activities and advocates for a culture of efficient water use whilst preserving aquatic and biological resources for generations to come.

RESEARCH

INRTU-developed environmentally sound technologies to minimize the impact on water bodies

The Siberian School of Geosciences at INRTU has created and tested the fresh water-adapted Scat marine electromagnetic sounding system at Lake Baikal. The device is intended for the detection of placer deposits in river deltas and on the seafloor.

76

In 2022 the University released 76 articles on environmental conservation topics, with a focus on safeguarding specially protected natural areas and preserving Lake Baikal

All-Russian Scientific and Practical Conference "Technosphere Safety in the XXI century"

Every year, INRTU holds events aimed at raising awareness of environmental risk assessment, identification, and minimization in the region's aquatic ecosystems. As such, in 2022, the university hosted the XII All-Russian Scientific and Practical Conference on "Technosphere Safety in the XXI Century", which focused specifically on the issue of antibiotic contamination of aquatic environments, the consequences of pollution, and available solutions to this problem.

PUBLIC ENGAGEMENT

Collaboration between INRTU and D. I. Mendeleev Russian Chemical Technical University on the Mendeleev Class research program

INRTU collaborates with the local community to sustain common aquatic ecosystems. As part of the national Ecology project, INRTU and D. I. Mendeleev Russian Chemical Technical University have been running the Mendeleev Class research program for the past three years to train reserve personnel. Students from all over Russia are guided by INRTU teachers and students to conduct research on Lake Baikal and its shores.

Seminars on Russian and Mongolian scientists' cooperation

As part of collaborative research, INRTU, in conjunction with the Mongolian Academy of Sciences and the Siberian Branch of the Russian Academy of Sciences, arranges seminars on the mutual efforts of Russian and Mongolian scientists to develop science-based mechanisms for geo-ecological monitoring to ensure the sustainability of the Khubsgul and Baikal ecosystems.

Environmental volunteering

INRTU has established a policy to preserve aquatic ecosystems and their biodiversity. The University works systematically with students, including the Taiga eco-team, a member of the All-Russian Youth Ecological Movement (VMED) - a community of initiative citizens, entrepreneurs and representatives of public authorities. The movement aims to revive the eco-patriotism concept and promote a careful approach to nature.

OPERATIONS

INRTU-supported environmentally responsible procurement procedures

The University website has a Procurement Statement. In line with article 7.1.2.2.3 pp. 11, 12, requirements for procured goods, services, and works must prioritise high-quality products and services that possess essential consumer and technical traits, meet environmental and industrial safety standards, comply with energy efficiency requirements, and are ethically and sustainably sourced. It is crucial to ensure that the supply chain is free of forced labour.

INRTU Policy on Sustainable Consumption and Production Technologies

INRTU has developed a Policy on Sustainable Consumption and Production Technologies, which includes provisions to reduce plastic waste on campus. As part of this initiative, INRTU has entered into a memorandum of understanding with the Baikal Without Plastic Association. The primary aim of the organization is to promote the decrease in single-use plastic consumption within the central ecological zone of the Baikal natural territory as well as in the Baikal regions. As a member of the Baikal Without Plastic Association, INRTU supports the prompt development of a range of measures to remove single-use plastic products from circulation in the central ecological zone of the Baikal natural territory. The Association is dedicated to offering separate waste collection infrastructure, creating recycling mechanisms and promoting environmental awareness amongst residents and visitors within the Baikal area.

INRTU laboratories for water quality determination and monitoring

The university operates three research laboratories that focus on the determination and monitoring of water quality. The INRTU-based laboratories carry out impartial, precise and unbiased monitoring, including one-time assessment of the quality of drinking, natural and wastewater not only on the University campus, but also for the city and region of Irkutsk, the Siberian Region and neighbouring countries. MUP Vodokanal, the water supplier for the university, is dedicated to the principles of sustainable development. It aims to provide the city's residents and other consumers with high-quality water and wastewater services and to create environmentally safe conditions for the Angara River basin.