Education

Samara Polytech annually proves its status of one of the leading universities the region. Development of environmental management system is a high priority task, as well as training experts in environmental protection.

In 2022, inspection results showed that SSTU Environmental Management System (EMS) meets the requirements of GOST R ISO 14001-2016 (<u>Certificate</u>) regarding secondary general, secondary vocational, higher and additional vocational education, and R&D.

Students may choose either of 3 Bachelor's programs and 7 Master's programs, including:

18.03.02 - "Energy and resource-saving processes in chemical technology, petrochemistry and biotechnology" specialization "Environmental protection and rational use of natural resources". Duration of training - 4 years. Level: Bachelor. This academic program is included in the list of priority areas of Russia's Economy modernization and development. Accredited is received by international agency AKKORK (2021-2025) and the European Chemistry Thematic Network Association (ECTN) (2021 - 2026).

20.03.01 - Technosphere safety". Duration of full-time study is 4 years. Level: Bachelor.

08.03.01 - "Construction", specialization "Water supply and sanitation". Duration of training - 4 years. Level: Bachelor.

08.03.01 - "Construction", specialization "Hydraulic Engineering". Duration of training - 4 years. Level: Bachelor.

18.04.02 - "Energy and resource-saving processes in chemical technology, petrochemistry and biotechnology", Master's program specialization "Industrial ecology and rational use of natural resources". Duration of training: 2 years. Level : Master. The program was developed for international project TEMPUS "Advanced M.Sc. Program in Ecology for the Volga-Caspian Basin" together with the universities of Stuttgart, Warsaw, Parma and Barcelona. The program is accredited by the international agency AKKORK (2021-2025) and the European Chemistry Thematic Network Association (ECTN) (2021-2026).

20.04.01 - "Technosphere Safety", Master's program specializations "Monitoring of territories with high anthropogenic load", "Technosphere safety in the oil and gas industry" and "Engineering environmental protection and rational use of natural resources". Duration: 2 years. Level: Master.

08.04.01 - "Construction", specialization "Water supply of cities and industrial enterprises". Duration of training: 2 years. Level: Master.

08.04.01 - "Construction", specialization "Improving technologies for water purification and sediment treatment." Duration of training: 2 years. Level: Master.

08.04.01 - "Construction", specialization "Water disposal and wastewater treatment". Duration of training: 2 years. Level: Master.

08.04.01 - "Construction", profile "Hydraulic Engineering". Duration of training: 2 years. Level: Master.

08.04.01 "Heating, ventilation systems and air basin protection." Duration of training: 2 years. Level: Master.

In 2022, 34 retraining and advanced training programs were launched at the request of UPNP and KRS JSC, NOU DPO NUK, Transneft-Privolga JSC, Chernomortransneft JSC, Transneft-Druzhba JSC, Samaraneftegaz JSC, Ecology JSC ", JSC "Clean City", JSC "Promsintez", Office of the Federal Security Service of the Russian Federation for the Samara Region, LLC "CONTRAST SERVICE", LLC "Oil", LLC "SK LADOGA", JSC "Terminal Service", Samara RNU, Buguruslan RNU, Transneft-Port Primorsk LLC, Gorky RNU, Transneft-Upper Volga JSC and individuals.

In 2022, the number of students enrolled in the Bachelor's and Master's programs increased and reached 615 individuals, 18 of whom were admitted for targeted education under the quota system.

The programs for training highly qualified scientific personnel are represented by the following scientific specialties: 1.5.15 - Ecology; 1.6.21 - Geoecology; 2.1.4 -Water supply, sanitation, construction systems for the protection of water resources.

As part of the activities of the House of Scientific Collaboration at Samara State Technical University, a supplementary general educational program called "Green Chemistry" was implemented in 2022. The program is aimed at 9th grade students and took place at Samara Polytech branch in Syzran. Fourteen students participated in the program in 2022, and since its inception in 2020, a total of 42 students have completed the program and received certificates.

"Green Chemistry" is a new and promising field in chemistry and chemical technology that aims to protect the environment and human health from hazardous chemicals. The program focuses on addressing current environmental and human protection challenges handled by ecologists and chemists, emphasizing the demand for these professions and highlighting relevant priority tasks and projects in the field of sustainable natural resource management.

Education is provided by 84 faculty members, including 11 Doctors of Science and 35 Candidates of Science. A special feature of educational activities in inenvironmental management, ecology and sustainable development is its intersectoral nature. Thus, 106 courses in bachelor's, specialist's and master's programs are devoted to solving interdisciplinary problems within sustainable development goals. Having acquired the appropriate competencies, graduates have a broad theoretical and practical base, high adaptive potential, which allows them to successfully engage in scientific research, engineering, design, management and organizational work in almost all sectors of the economy, in the field of education and science, environmental and administrative services. It is to be mentioned that each final qualifying work of students involves solving specific practical problems of the real sector of the economy regarding rational environmental management. In 2022, more than 50% of the works are strongly related to existing industrial enterprises and man-made facilities. 156 bachelor's and master's degrees were awarded in 2022. All graduates were employed as specialists, service managers, government inspectors at the following enterprises: Kuibyshev Oil Refinery JSC, Novokuybyshev Oil Refinery JSC, KuibyshevAzot PJSC, SIBUR PolyLab LLC, Samaraneftegaz JSC, Novokuybyshev Oil and Additives Plant ", Otradnensky Gas Processing Plant JSC, Novokuybyshevsk Petrochemical Company JSC and leading ecologists and chemists of enterprises such as Samaraneftekhimproekt PJSC, Giprovostokneft JSC, Transneft JSC, Rosneft. The intersectoral nature of graduate training determines the wide geography of employment : Offices of Rosprirodnadzor and Rostekhnadzor for the Samara region, Ministry of Forestry, Environmental Protection and Natural Resources Management of the Samara Region, divisions of Gazprom PJSC, Volga Main Oil Pipelines OJSC, Samaraneftekhimproekt PJSC, Giprovostokneft JSC, Kuibyshevsky, Novokuibyshevsky and Syzran oil refineries plants, NGDU Buzulukneft, Sergievskneft, SamaraNIPIneft LLC, NPO Ecobezopasnost LLC, administrations of cities and districts of the Samara region, etc.

SSTU students and teachers expand their horizons in the area of environmental safety, being regular participants in large-scale events, forums and meetings, not only at the national but also at the world level, such as:

- international seminar on UI GreenMetric World University Rankings, Taiwan. Professor SSTU, director of the Volga region resource center for environmental engineering and chemical technology presented the results of his research on traffic noise;
- VI All-Russian Water Congress, Moscow. An associate professor of the department of "Water supply and sanitation" made a report "The issue of returning to a specialty in the specialty "Water supply and sanitation." The country's main water forum has become a platform for the formation of consolidated decisions on the integrated use of water resources, sustainable development of the water sector, preservation and improvement of the country's water fund;
- All-Russian youth forum "Ecosystem. Reserved region, Kamchatka. As part of the "Ecology Starts with You" track, lessons have been organized for schoolchildren on the rules of the relationship between man and the environment;
- meeting-presentation of Samara Communal Services LLC, dedicated to the reconstruction of one of the wastewater treatment facilities within the framework of the federal program "Improvement of the Volga" of the national project "Ecology". (<u>http://www.ecos-</u>

samara.ru/index.php?option=com_content&view=category&layout=blog&id=3<e mid=82)

For the second year in a row, student projects of Samara Polytech become one of the best in the All-Russian competition of student eco-projects "My Green University". In 2022, SSTU again entered the TOP 10 winning universities.