

## GENERAL OVERVIEW

Kuban State University was established in 1920 and it will celebrate its 100 year anniversary in 2020.

Throughout its history, Kuban State University has consistently focused on improving people's quality of life through relevant education and research. KubSU a university of ideas and influence.

KubSU has around 30,000 students and 1678 highly qualified teaching staff members (1 academician of the Russian Academy of Sciences, 264 professors, 944 associate professors, and 470 lecturers).



### 17 faculties:

- |   |   |
|---|---|
| Faculty of Architecture and Design                        | Faculty of Law  |
| Faculty of Art and Graphics                               | Faculty of Management and Psychology                          |
| Faculty of Biology  | Faculty of Mathematics and Computer Sciences                  |
| Faculty of Chemistry and High Technologies                | Faculty of Modern Languages                                   |
| Faculty of Computer Technology and Applied Mathematics    | Faculty of Physics and Technology                             |
| Faculty of Economics                                      | Faculty of Pedagogics, Psychology and Communicational science |
| Faculty of Geography                                      | Faculty of Russian Philology                                  |
| Faculty of Geology  |   |
| Faculty of History, Sociology and International Relations |   |
| Faculty of Journalism                                     |   |



### Study Opportunities

- 131 Bachelors programs
- 125 Masters programs
- 60 PhD Programs



### ECTS/Academic recognition

Kuban State University fully implements the European Credit Transfer and Accumulation System (ECTS)



### Library

The university scientific library fund contains 1,360,000 scientific books, periodicals, and journals.

The library takes pride in a wide collection of rare books published in the XYII – XXI c.c.

The library is actively involved in converting its catalogue to electronically accessible formats. As such the library shares an extensive range of e-resources across all subject areas.



### Sports

KubSU pays special attention to the development of its physical training and sports programs, as well as to inculcating healthy lifestyle patterns in its student communities.



## WELCOME TO KUBAN STATE UNIVERSITY (KubSU)!

Students from over 55 countries currently attend KubSU. Many are attracted to the university by its strong reputation in academics in research, as well as the opportunity to experience one of Russia's most beautiful regions.

KubSU has strong international links with many countries such as the UK, France, Belgium, Germany, Austria, Greece, China, and Korea.

Kuban State University has collaborative partnerships with a number of overseas universities including: University of Vienna, KU Leuven, Royal Belgian Institute of Natural Sciences, University of Bristol, Berlin University of Applied Sciences, RheinMain University of Applied Sciences, Aristotle University of Thessaloniki, Tianjin Foreign Studies University, Kyungpook National University, Czech University of Life Sciences in Prague, and Kobe City University of Foreign Studies.

KubSU has two partnership educational programs that allow students to receive a diploma from KubSU as well as a diploma from one of the partner universities. The university partners are Berlin University of Applied Sciences and Czech University of Life Sciences.

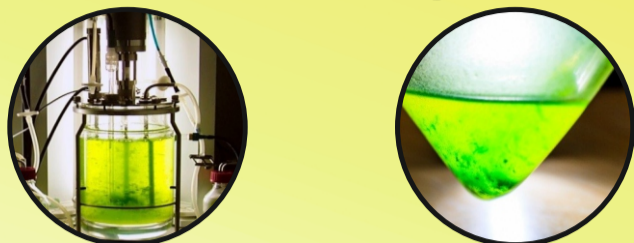
Foreign professors from Germany, Italy, Venezuela, Mexico, and Bulgaria take part in educational process in KubSU – they lecture, carry out seminars and workshops.

Within the framework of the international exchange programs on the basis of the partnership agreements and contracts with universities in Belgium, South Korea, Portugal, France, Germany, China, Sweden, Great Britain, the Netherlands, Austria and the USA, KubSU students are able to study abroad and foreign students in KubSU.

KubSU is represented in 23 international university and academic associations.



## Alternative energy sources based on microbial technologies in purification of organic waste



The technology is developed at the junction of modern biotechnologies, chemical engineering and energetics, it includes the optimization of waste waters purification with organic pollutions by including two innovative cleaning system components: The microbial fuel cell (MFC) and post-treatment ponds with lipid accumulating microalgae (MCA).

The offered innovative components (MFC and MCA) are integrated into the existing system of waste treatment facilities of an enterprise. Biological destruction of organic wastes occurs by the community of electrogenic bacteria during the process of wastewater passing through the system of MFC cascade, the result being electric current.

The cascade mechanism (RF patent №145009) is constructed entirely of new alternative materials, making it several times cheaper than imported counterparts.

Partially treated wastewaters are sent to bioponds where microalgae are cultivated, the MAC plankton culture is used, resistant to external factors and able to use waste water as a substrate. Lipids are produced from MAC for biofuel production. The remained biomass is used as feed supplement rich with protein, vitamins and essential elements.



## Biological product with phytostimulating properties for rehabilitation and restoration of fertility of technologically polluted lands and territories

The bacterial product provides high microbiological purification of drill wastes, oil sludge and oil polluted soil. This invention is characterized by usage of consortium of new highly efficient natural strains of microorganisms with phytostimulating properties, hydrocarbon-oxidizing activity for a wide range of oil products, allowing to eliminate all types of oil pollutions, the strains adapted to the climatic conditions of the southern regions with high average daily temperatures, and sandy soils.

The key difference of the biological product is not only the decay of hydrocarbons, but also the stimulation of plant activity in oil polluted soils. The effect is based on the process of eliminating phytostimulating elements and biological surfactants by bacteria. The principal advantage of the product is an extend of its essential properties spectrum – bio emulsification and decay of toxic oil products in hot climate, as well as phytostimulation. The ability to activate green plants is possible due to the inclusion of specially selected bacteria producers of phytostimulating substances to the biological product. Therefore, the product can also be used in large cities and areas, which have a problem of anthropogenic pressure on natural ecosystems.



before

after

## Concentrating cartridges to control the content of eco toxicants



Specialized laboratories need improving techniques to control organic and inorganic eco toxicants. This is due to tightening of requirements for the quality of natural, waste and drink waters.

In this regard, it is important to produce competitive special funds, such as concentrating cartridges. They can significantly simplify the process of analyzing natural samples, and in some cases serve as the only possible method for solving the problems of separation and concentration of analites. Concentrating cartridges are developed on the base of sorbents containing impregnated or immobilized analytical reagents on cellulose or silica gel surface.

The sorption materials developed, filling the concentrating cartridges, greatly simplify the sample preparation stage for the analysis of the samples of natural waters. Approaches to getting sorption materials make them significantly cheaper than the existing analogs.

The final concentrating cartridges are used in the practice of laboratories involved in eco-analytical monitoring, for extraction and separation of metals when preparing samples of natural and tecnogenic waters, soil extracts and mineralizers for an analysis.

## Hybrid baroelectromembrane installation for production of drinking water and disposal of reverse osmosis wastes

Nowadays, distillation of seawater and surface waters is the main source of drinking water. At the same time, the expenses for disposal of reverse osmosis retentates are high and range from 5 to 33% of the total cash expenses desalination. One of the most advantageous technologies of processing reverse osmosis concentrates is electro dialysis concentration.

Combining the reverse osmosis baromembrane process and electro dialysis concentration in one installation allows reducing operating costs for recycling the reverse osmosis wastes, and potential ecological impacts of the installation work. It also allows extracting useful minerals from the concentrated solution of the reverse osmosis wastewaters.

The main field to use the development is producing drinking water from surface or sea waters. The installation relates to the technology class of zero escape, as it allows to recycle wastes after the reverse osmosis installations work, that reduces the impact of the technology on the environment. The reverse osmosis waste concentrate produced at the installation can be used for extraction of solid salts.

