



## AL-FARABI KAZAKH NATIONAL UNIVERSITY

### Quick Facts

**Location (city, state):** Almaty, Kazakhstan

**Website:** <https://farabi.university/>

**Undergraduate student enrollment:** 19889

**Public/Private:** public

**Graduate student enrollment:** 4518

**Type of Institution:** Research University

#### **Institutional Description (limit 250 words):**

Al-Farabi Kazakh National University (KazNU) is the leading institution of higher education and one of the main research centers of Kazakhstan. It has 16 faculties, 64 departments 8 research institutes, 17 scientific centers of social and humanitarian profile and a techno park. KazNU is working on enhancing international dimension, facilitating academic staff networking for reviewing/reshaping study programs, further joint projects and PhD students' supervision, studying overseas students' recruitment approaches.

KazNU is a strategic partner of the UN Civilization Alliance and the Regional Hub for Sustainable Development in the framework of the UNITWIN UNESCO program. KazNU was the first in Central Asia to be admitted to the International Consortium of Universities (WUC) (2014); Clinton Global Initiative University (CGI U) (2015); Organization COMSATS (2015); Alliance of Universities of the New Silk Road (New Silk Road Universities Alliance, China) and its Board of Directors (2015); Silk Road University Network (Silk-Road Universities Network, South Korea). In the framework of international integration of science and education, KazNU has opened educational and research centers and laboratories of the world's high-tech companies «Hewlett-Packard», «Samsung», «Cisco», «Konica Minolta», «Microsoft», FUJITSU and others, where programs of additional professional education are being delivered. The University has its representative offices in foreign countries (Joint Chemical Laboratory at the University of Rostock, Germany; KazNU Photochemistry Laboratory at the Karachi International Center, Pakistan; Kazakhstan Center at Beijing University of Foreign Languages) and al-Farabi Centers at foreign universities.

### Partnership Information

#### **Possible Academic Areas of Collaboration:**

Environmental studies

#### **Institutional Strengths:**

Al-Farabi KazNU was ranked 150 in the QS World University Rankings 2023, making it Kazakhstan's highest ranked university. Al-Farabi KazNU is ranked 44th in the QS Asia University Rankings 2023. The university is a member of the following international organizations: the International Association of Universities, European Society for Engineering Education, the international Association for the Exchange of Students for Technical Experience and International Observatory on Academic Ranking and Excellence, and the Indo-US Collaboration for Engineering Education.

It was first among Central Asian universities to join the UN "Academic Impact" (UNAI) program and to become the Global HUB of UNAI on sustainability, aimed at supporting 10 internationally recognized principles of the UN. By the decision of United Nations Academic Impact program Al-Farabi KazNU continue to lead the Global Hub of the UN Academic Impact Program on Sustainable Development.

Nowadays, Al-Farabi KazNU has 17 schools, which offer 134 BA, 268 MA and 140 PhD educational programs in engineering, natural sciences, humanitarian and social sciences, medical sciences and economics. KazNU enrolls the largest cohort of students in Kazakhstan on its campus in downtown Almaty City, overlooking the gorgeous mountains of Alatau.

#### **Partnership Interests:** (e.g., faculty exchanges, student exchange, dual degrees, joint research, distance learning, etc.)

1. Joint research on topic "Sustainable Reservoir and Hydropower Operation and Modeling: Case Study Tien-

Shan Rivers" c Dr. Tiantian Yang, School of Civil Engineering and Environmental Science, Oklahoma University  
<https://www.ou.edu/coe/cees/people>

2. Updating the course "Modern Digital Technologies in Hydrology" for MS Hydrology program's students at KazNU.
3. Short visit-training (2-3 months) at Oklahoma University for two Researchers from the Faculty of Geography and Environmental Sciences on the following subjects: 1) Statistical modeling approaches (machine learning and data mining tools) and 2) Subseasonal-to-Seasonal Ensemble Forecasts under Climate change.
4. Exchange program for MS and PhD students in Hydrology program KazNU at School of Civil Engineering and Environmental Science, Oklahoma University.
5. Invitation of academic staff of School of Civil Engineering and Environmental Science, Oklahoma University to conduct classes of MS and PhD in Hydrology program students at the Faculty of Geography and Environmental Sciences, KazNU.

**Interest in Partnership:** Why are you interested in partnering with a U.S./Kazakh institution? What do you hope to gain from such a partnership?

The School of Civil Engineering and Environmental Science, Oklahoma University has experiences in these research areas: Hydrological Modeling and Simulation, Methods to Estimate Optimal Parameters for Hydrological Models, Sustainable Reservoir and Hydropower Operation and Modeling, Climate Change and Evaluation of the Impacts on Water Resources, Developing Advanced Optimization Tools and Algorithms for Water and Energy Resources Allocation and Applying advanced artificial intelligence and data mining techniques to assist water resources management and planning. These areas of research are absolutely new and important for Kazakhstan. It would be great if KazNU researchers are doing joint research with Oklahoma University in these topics and accepting their mythologies and experiences. The expected results of this research will solve many problems in water resources of Kazakhstan which are becoming more environmental problems in Kazakhstan.

**Main Partnership Contact: (name, title, email):**

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4. Exchange program for MS and PhD students in Hydrology program KazNU at School of Civil Engineering and Environmental Science, Oklahoma University.
5. Invitation of academic staff or visiting lecturers of School of Civil Engineering and Environmental Science, Oklahoma University to conduct classes of MS and PhD in Hydrology program students at the Faculty of Geography and Environmental Sciences, KazNU.
6. Online Master of Environmental Science: Hydrology & Water Security for KazNU students.
7. Joint publication.

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Kazakhstan faces flooding every year due to climate change and lack of application of modern technologies such as satellite data and its data processing techniques. Scientists in Kazakhstan need to adopt the experience of scientists of the School of Civil Engineering and Environmental Science, Oklahoma University in these areas: focuses on water resources management, reservoir operation and optimization, coupled natural and human systems, and the interaction among water-energy-climate. The results of the following projects of Oklahoma University would be very useful for al-Farabi Kazak national university: Hydrological Modeling and Simulation, Methods to Estimate Optimal Parameters for Hydrological Models, Sustainable Reservoir and Hydropower Operation and Modeling,

Climate Change and Evaluation of the Impacts on Water Resources, Developing Advanced Optimization Tools and Algorithms for Water and Energy Resources Allocation and Applying advanced artificial intelligence and data mining techniques to assist water resources management and planning. These areas of research are absolutely new and important for Kazakhstan. It would be great if KazNU researchers are doing joint research with Oklahoma University in these topics and accepting their methodologies and experiences. The expected results of these researches will solve many problems in water resources of Kazakhstan which are becoming more environmental problems in Kazakhstan. The researcher's qualifications and GIS, Remote sensing centers at KazNU will let to do joint research in these areas between Oklahoma University and KazNU. But there are no any new methodologies and experiences in these topics in Kazakhstan that is why KazNU is interested to collaborate in partnership with the School of Civil Engineering and Environmental Science, Oklahoma University.

**Main Partnership Contact: (name, title, email):**

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**Partnership Information**

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The Department of Economics plans to conduct joint scientific research, joint scientific publications of research results, organization of scientific events and conferences, external mobility between Kazakh and American students, undergraduates, PhD students in the educational process and for the purpose of educational and scientific internships for teaching staff and co-supervision of doctoral dissertations.

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The Department of Economics teaches the discipline "Entrepreneurship" in all educational programs of Al-Farabi KazNU, therefore, we consider the study of entrepreneurial models a priority for us.

Participation in the Kazakhstan-U.S. University Consortium Partnership Program will provide an opportunity for teaching staff of the Department of Economics to participate in scientific research, which in turn will allow the release of high-quality scientific publications.

**Main Partnership Contact: (name, title, email):**

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