

AlmaU, Kazakhstan Expands its Cooperation with U.S. Universities Through Joint Projects

Within the period from May 17 to May 29, 13 students and 5 professors visited Almaty Management University in the framework of a cooperation project within the Global Social Impact Fellowship program funded by UniCEN. This trip was an in-country fieldwork in Kazakhstan as a part of their studies.

Global Social Impact Fellowship program is designed for those undergraduate and graduate students from any program of Lehigh University who wish to work on sustainable development challenges in low-income countries. During this project students are engaged in faculty-guided fieldwork with diverse local partners in summer. The courses, workshops, retreats, and immersive experiences of this program integrate experiential learning, research, and entrepreneurial engagement with students leading original and ambitious projects with in-country partners in diverse countries.

This cohort of students was working on their projects for the whole academic year and finally they have reached a milestone in their projects. These interim results were presented publicly by every team on May 20 in front of the top-management, faculty, and students of AlmaU.

Initially, partnership between AlmaU and Lehigh started with 2 students' sustainable development projects: Save Tuba and Air Quality. Now, students from both institutions run 4 mutual projects (full description is available below).

These projects are aimed at developing skillsets, mindsets, and portfolios to solve complex societal challenges. Students learn how to create real viable projects, search for funding and investments, collaborate with people of other cultures and backgrounds, how to manage a team working in different time-zones, publish their works in peer-reviewed journals, integrate their insights into national policies, and champion social movements that influence the lives of millions of people. The quest for sustainable impact drives the philosophy, pedagogy, and operations of this program with the objective of preparing students to lead lives of impact. Teams also held focus groups in schools with schoolteachers, meetings with local NGOs and experts on their themes.

On May 24, the School of Politics and Law of Almaty Management University (AlmaU) and Lehigh University organized an offline and online workshop on "Creating an Ethical Commission for Research on Social Sciences in Kazakhstan". The aim of this event was to gather experts from academia, governmental institutions, international organizations, and civil society to address the importance of creating an ethical commission for research on social sciences in Kazakhstan. As such, this workshop served as a platform for an exchange of opinions as well as for the creation of a committed group of experts that will further proceed with the concrete creation of the ethical commission post-event. The colleagues from distinguished Kazakhstani universities (Nazarbayev University, M. Narikbayev KAZGUU University), experts on education participated in the workshop moderated by Ms. Dinissa Duvanova.

As a part of cultural immersion experience, on May 21, Lehigh students visited the ethnic aul Huns, where they practiced archery, horse riding, watched the demonstration of cultural traditions and peculiarities of Kazakh people.

On May 27, Lehigh students visited the American Space coworking for open presentation of their projects for public. They pitched once again their projects in front of Almaty city students and pupils from different education institutions. In response, positive feedback and comments were received for further amelioration of their ideas.

During his visit, Khanjan Mehta, Vice Provost for Creative Inquiry and Director of the Mountaintop Initiative, had several meetings with key AlmaU divisions to find and promote further areas of partnerships. Last Spring, AlmaU and Lehigh University signed a Memorandum of Understanding that launches a future cooperation on students and faculty exchange, research projects.

More about Global Social Impact Fellowship program

Source: <https://creativeinquiry.lehigh.edu/mountaintop-programs/global-social-impact-fellowship>

Kazakhstan: Air Quality Initiatives in Almaty (PI: Dinissa Duvanova, International Relations)

Almaty, Kazakhstan experiences extremely poor air quality due to coal fired power plants and transportation emissions. With the projected population growth and lack of investment in pollution-reducing technology, poor air quality is likely to continue harming public health. In the long term, the Air Quality in Almaty team aims to reduce respiratory illnesses due to air pollution. Currently, we are collaborating with an organization called AirVision and using their mobile application to increase awareness and reduce air pollution exposure. We plan to take a multifaceted approach to popularize the app this coming semester through educational campaigns and social media advertisements. By researching how other countries have reduced their air pollution and combining that with our knowledge of Almaty, we intend to propose innovative solutions to AirVision and local government entities. We are in the process of conducting an opinion survey to study the habits and current knowledge of Almaty citizens regarding air quality. This research will allow us to formulate targeted approaches to reduce air pollution exposure. This team welcomes students with diverse academic backgrounds, such as majors in environmental studies, journalism, health medicine and society, earth and environmental sciences, chemistry, sociology, economics, computer science, marketing, political science, and chemical and environmental engineering.

Kazakhstan: Save Tuba (PI: Khanjan Mehta, Creative Inquiry)

Almaty, the commercial capital of Kazakhstan and a major hub in Central Asia, is facing enormous challenges with sustainable urban development. Uncontrolled migration burdens the housing infrastructure, outdoor air quality, access to clean water and waste-water management systems at the constantly-growing periphery of the city leading to negative environmental consequences which compromise economic growth. For example, despite investing over \$500M over the last 15 years in recycling systems, only 11% of municipal solid waste is actually recycled. Tuba is a critically-endangered saiga antelope native to the Kazakh Steppes. 'Save Tuba' is a sustainability education platform for Almaty's youngest citizens that connects knowledge, inquiry and action to help students build a healthy future for their communities and the planet. Kazakh students, with guidance from their teachers and families, start recycling, reduce litter, educate their peers, use public transportation, etc. to earn points in a friendly competitive setting. Save Tuba enables K-12 students and their teachers to embark on a series of real, relevant, and meaningful sustainability actions with the goal of long-term behavioral change. The Lehigh team is collaborating with diverse partners to develop and validate the app and pilot-test it with schools in Almaty. We are seeking students from all majors across campus with a deep interest in sustainability education and action. Students with graphic design skills and app design/development skills are particularly welcome.

Kazakhstan: Research Integrity in Kazakhstan (Co-PIs: Bill Gaudelli, College of Education; Dinissa Duvanova, International Relations; Khanjan Mehta, Creative Inquiry)

IRBs (Institutional Review Boards) are bodies established by governments to review and monitor research involving human subjects. Lehigh, like all U.S. universities which conduct research, has an IRB and approval is required for any research project that involves working with humans, whether it be conducted in the social sciences, humanities, natural sciences, or engineering fields. Kazakhstan, with dozens of universities and research institutes, has no IRB process for human subjects research outside of clinical (medical) research. As the country continues its transition to a knowledge economy and more research studies are undertaken by universities, there is a need for better research protections and building a culture of research integrity. In collaboration with faculty and students at Almaty Management University and other Kazakh stakeholders, this project will focus on developing the framework for an IRB-like body in Kazakhstan, building necessary partnerships and getting buy-in, and executing on this shared vision and strategy. The result of this work will be to greatly expand Kazakhstan's research capabilities and the integrity of that research, and to ensure that it is always conducted in an ethical manner. All majors are welcome to apply.

Kazakhstan: Environmental Pollution and Asthma Effects (PI: Hyunok Choi, College of Health)

Globally, quantifying and clarifying the causalities underlying environmentally attributable childhood illnesses, including adverse birth outcomes, asthma, obesity, and intellectual impairments, remains an urgent public health challenge. To date, our group has demonstrated that early-life exposures to fossil fuel-emitted air pollution independently contribute to adverse birth outcomes, obesity, and doctor-diagnosed asthma. In particular, air pollution due to fossil-fuel burning remains an urgent challenge in Kazakhstan. However, the extent to which neighborhood environmental, demographic, and social attributes contribute to the inception and exacerbation of multiple diseases during childhood within Kazakh children remains unknown. Furthermore, air pollution and regional climate change exact an exceptionally high toll on children and the impoverished segment of the population, thereby highlighting the underlying injustice. One of the most intractable barriers to an improved understanding includes an overall absence of valid ground-level air quality data in Kazakhstan. Such an absence of human air pollution exposure data means that protective policies for the general population could not be developed. Over the next 10-year period, our overarching goal is to quantify the human health and economic benefits due to the conversion from fossil-fuel dependency to renewable energy sources, mediated by reducing the environmental pollution. During the next five-year period, we aim to determine the asthma risk resulting from early-life exposures to PM_{2.5}, NO₂, and ozone, respectively or in conjunction, after adjusting for social-demographic behaviors. As a first step, our short-term goal is to build Kazakhstan-focused, multiscale geospatial data infrastructure. Over the next five-year period, we will seek to deepen our understanding of the environmental origins of childhood developmental disease, including but not limited to asthma, obesity, and neurocognitive impairments.

History of Lehigh-AlmaU partnership

Lehigh University and AlmaU partnership in the program Social Global Impact Fellowship supported by American Councils

In January 2020 Almaty Management University, AlmaU and Lehigh University started a fruitful collaboration, with the participation of students and faculty from both universities. In the frame of the Global Social Impact Fellowship programme, supported by the U.S. Embassy in Kazakhstan and funded by UniCEN - Central Asia University Partnerships Program which is implemented by the American Councils for International Education of Kazakhstan, more than 20 students and several faculty members of the two Universities have worked together to implement sustainable

development education projects. First project refers to the theme of sustainable education for school students (Save Tuba) where participants aim to create a smartphone app for school children, educating them about the sustainability issues and targeting the change of mindset. The second project targets air pollution in Almaty where participants do research on this issue and propose solutions. Here smart city project innovations are being introduced throughout Kazakhstan, particularly in the country's largest city, Almaty. These innovations are happening in the areas of health care, education, and safety/security, among many others. As Almaty continues to grow and develop into a major world capital, the need for it to be on the leading edge of the "smart cities" movement will only increase. This project will work with community organizations and leading universities in Kazakhstan, as well as students from Lingnan University in Hong Kong, to design and develop the next generation of smart city urban design innovations, and find ways to work with governmental and NGO entities to implement those solutions into the Kazakh capital.*

*Taken from the official website of Lehigh University

https://www.almau.edu.kz/center_for_the_development_of_civil_society_almau-10103

November 01, 2021

AlmaU in collaboration with Lehigh University (USA) held the Summit "Collaborations for Social Innovation and Sustainable Development"

AlmaU in collaboration with Lehigh University (USA) held the Summit "Collaborations for Social Innovation and Sustainable Development" on October 07, 2021 in hybrid format.

AlmaU Leadership and Lehigh Representatives opened Welcome Session and Panel Discussion at the Main Hall of AlmaU Campus.

Summit Participants shared their Breakouts by Theme:

- Research Partnerships and Capacity Building
- Language Acquisition and Intercultural Communication
- Health, Sustainability, and Social Enterprise .

The Summit brought together over 80 academicians, researchers, changemakers, educational innovators, thought leaders, and experts for a day of conversation and inspiration. Summit program opened opportunities to expand partnerships, joint programs and projects, as well as to run open dialog on sustainable development, capacity building and intercultural communications between academia, government, non-profits, and industry.

https://www.almau.edu.kz/en/news/almau_in_collaboration_with_lehigh_university-13165

July 29, 2021

AlmaU's active collaboration with Lehigh University, USA goes to the next level

In January 2020 AlmaU and Lehigh University started a fruitful collaboration, with the participation of students and teachers of both institutions. In the frame of the **Global Social Impact Fellowship, supported by the U.S. Embassy** and funded by **UniCEN - Central Asia University Partnerships Program** which is implemented by the American Councils for International Education in Kazakhstan, more than 20 students and several faculty members of the two Universities have worked together to implement sustainable development education projects.

Lehigh and AlmaU students are working under the supervision of AlmaU faculty **Ms. Aigerim Serikbekova** (School of engineering management) and Ms. Aurora Díaz-Soloaga (School of

management) and **Dr. Khanjan Mehta** (Vice Provost for Creative Inquiry Director of the Mountaintop Initiative Lehigh University) and **Dr. Dinissa Duvanova** (Associate Professor, Lehigh University).

Within the framework of this project, AlmaU project coordinators visited Lehigh University in July 2021 together with the vice-rector for Academic Affairs, **Assel Aryn**, and the dean of the School of Engineering Management, **Kuanysh Abeshev**. During the visit they attended the Unconference on Impact Education and met with many top managers (Provost, vice provost, deans) and faculty of Lehigh University. The goal of those days was to look for further cooperation in fields like: exchanges, capacity building, joint projects, internationalization, and much more.

Furthermore, in July 2021, Lehigh representatives visited AlmaU where they met with top management, deans and faculty. Many meetings have been conducted during these days, allowing to strengthen cooperation and enlarging the number of joint projects. Guests together with AlmaU faculty met with the Akimat, the US Embassy, local industry leaders, universities and NGOs.

In October 2021 partners are preparing to host an international Summit dedicated to Sustainability development.

https://www.almau.edu.kz/en/news/almaus_active_collaboration_with_lehigh-13085

February 22, 2021

Rector of Almaty Management University Suleimenov Yerbol SULEimenov, during his work trip to the United States met with Khanjan Mehta Vice Provost for Creative Inquiry and Director of the Mountaintop Initiative at Lehigh University.

At the meeting, the interim results of the joint project “Academic Partnership between Lehigh University, USA and Almaty Management University, Kazakhstan” were discussed within the framework of grant funding from American Councils.

The aim of the project is to develop partnerships and exchange experience in three areas:

1. development of the educational program;
2. research faculty partnerships for social impact;
3. student exchange.

The mentors of this project from AlmaU are Serikbekova Aigerim and Aurora Diaz.

As a result of the meeting, agreements were reached on the further implementation of the project and future cooperation.

https://www.almau.edu.kz/en/news/rector_almaty_management_university_suleimenov-13007

Link to more information:

https://almau.edu.kz/en/news/lehigh_university_delegation_in_almau_-13280