



## DEAR ENTRANTS!

The Faculty of Chemistry and Chemical Technology of Al-Farabi KazNU is one of the leading scientific and educational centers in Kazakhstan, occupying a leading position in the national rating of educational programs in the chemical profile.

Currently, the faculty has more than 1,500 students in 21 specialties and three levels of training. All educational programs, accredited by the international agency ASIIN, are annually modernized taking into account the needs of the labor market, which allows us to train highly-demanded specialists for industry and science.

The faculty functions according to the model of a scientific, educational and technological multidisciplinary cluster, which has six enlarged departments integrated with three research institutes, and has a material and technical base for conducting scientific research in various fields of chemistry and chemical technology.

First-year students are widely involved in the system of educational and research work under the guidance of experienced teachers and scientists of the faculty, including more than 50 doctors of sciences, 100 candidates of sciences and doctors of PhD. This allows motivated and hardworking students to reveal their potential, acquire deep knowledge, experience and the necessary competencies.

Dear applicants! You have to make one of the important decisions in your life - to make the choice of a university, within the walls of which you will become a competitive and demanded specialist. This is a very responsible decision, since it determines not only the ways of realizing your intellectual and creative potential, but also your destiny in general. If you want to be confident in your future, if you intend to become a demanded specialist in the labor market, if you dream of a multifaceted active student life, enter the Faculty of Chemistry and Chemical Technology of KazNU. al-Farabi.

*Our doors are open and we are waiting for each of you!*



**TASSIBEKOV  
KHAIDAR**

Dean of the Faculty  
of Chemistry and  
Chemical Technology



## WHERE CAN GRADUATES BY SPECIALTY WORK ...

Graduates of the Faculty of Chemistry and Chemical Technology have the opportunity to work in various fields of chemistry not only in Kazakhstan, but also abroad.

### **B053 - Chemistry**

#### **M089 - Chemistry**

A graduate of the specialty "Chemistry" can work in production laboratories of analytical, environmental, customs, sanitary-epidemiological, certification services; research institutions (institutes, laboratories) of chemical, petrochemical, environmental, metallurgical pharmaceutical profile; in educational institutions (colleges, universities) as an analytical chemist, environmental chemist, process chemist, expert chemist, teacher, agrochemist, forensic laboratory chemist, geochemist, pharmacist, biochemist

### **6B05311 - Nanomaterials and nanochemistry**

A graduate of the specialty "Nanomaterials and Nanochemistry" can work in computer laboratories, in the development of sets of mobile communications, in the development of sensors for various processes, radio electronics, information sphere, energy, construction, industry, national defense, transport, biotechnology, medicine, cosmetics, research institutions (institutes, laboratories) and educational institutions (colleges, universities).

### **7 M07122 - Nanomaterials and nanotechnology in chemistry**

**7 M 07121 - Nanomaterials and nanotechnology in chemistry (double-degree PFUR)**

**7 M07131 - Nanomaterials and nanotechnology in chemistry (double-degree MISiS)**

### **8D07113 - Nanomaterials and nanotechnology in chemistry**

A graduate of the specialty "Nanomaterials and Nanotechnology in Chemistry" can work in research institutes, industrial corporations, business structures, the defense industry, in the field of ecology and medicine, at oil refineries, institutions of secondary and higher education as a laboratory engineer, specialist in nanomaterials, a specialist in the operation of devices and equipment, a research engineer, a design engineer, an electronic engineer.



### **B060 - Chemical Engineering and Processes**

#### **M097 - Chemical Engineering and Processes**

A graduate of the specialty "Chemical technology of inorganic substances" can work at enterprises for the processing of mineral raw materials; in combinations of metallurgical and mining industries; at factories for the production of building, ceramic composite materials; at enterprises of electrochemical production; at factory, shop and research laboratories as a chemist-technologist; technologist, technical support specialist; quality manager; an employee of production laboratories of analytical, environmental, certification services; and can also hold the position of a product manager; a production cycle or production manager; teacher in the field of secondary, vocational and higher education

### **B060 - Chemical Engineering and Processes**

#### **M097 - Chemical Engineering and Processes**

A graduate of the specialty "Chemical technology of organic substances" can work in the production of organic substances, processing of oil, gas, coal and polymers, processing of solid and liquid rocket fuels, preparation, production and transportation of hydrocarbons, chemical protection of plants; in the agrochemical, food, perfumery and pharmaceutical industries; in research and design branch institutes. A graduate can work as a chemical technologist, a technician-technologist, a chemical engineer, a leading engineer, a specialist in the quality control department, a teacher.

### **B072 - Technology of pharmaceutical production**

#### **M072 - Technology of pharmaceutical production**

A graduate of the specialty "Technology of pharmaceutical production" can work at pharmaceutical enterprises and pharmaceutical plants of various forms of drug production; at enterprises for the production of pharmaceutical substances, perfumery and cosmetic and biotechnological products; at enterprises for the production of biologically active additives, therapeutic and prophylactic drinks, sanitary and hygienic products and hold the position of a technologist, chemist-technologist, chemist-analyst, marketer.

### **B060 - Chemical Engineering and Processes M097 - Chemical Engineering and Processes**

The specialty "Chemical Engineering" was opened in 2019. The language of instruction is English. Upon admission, a certificate of passing the English language exam is required (IELTS $\geq$  5.0, TOEFLIBT $\geq$ 60, CEFR $\geq$ B1).

A graduate of this specialty can work at enterprises for the processing of mineral raw materials, production and sale of products of the chemical, environmental, agrochemical, petrochemical, pharmaceutical industries, metallurgical and mining plants, factories for the production of construction, ceramic composite materials, enterprises of electrochemical production (including at industrial enterprises using foreign licenses and technological documentation for production), in factory, shop and research laboratories, departmental departments, in the field of secondary, vocational and higher education, and hold a position chemist, process engineer, quality manager, product manager, production manager, teacher.



### **M013 - Training of teachers of chemistry**

A graduate of this specialty can work in organizations of secondary vocational and higher education, research institutes, authorized and local executive bodies in the field of education, in various educational institutions, schools, lyceums, gymnasiums, colleges, universities, teacher, laboratory chemist.

### **M097 - Chemical Engineering and Processes**

A graduate of the specialty "Petrochemistry" can work at oil and gas refineries; in business structures related to oil refining problems; in research institutes and universities as a head of a production and technological, organizational and management industry, a plant; an expert in business structures; researcher, teacher.

### **M115 - Petroleum Engineering**

A graduate of the specialty "Oil and Gas Business" can work at oil producing enterprises, in research and design institutes, higher educational institutions; research and production centers; domestic and foreign oil and gas companies, government agencies as a driller's assistant, driller, oil and gas production foreman, well survey operator, reservoir pressure maintenance workshop operator, oil preparation and injection workshop operator, R&D workshop operator; assistant foreman of underground and workover of wells; supervisor (foreman, site manager) of the reservoir pressure maintenance workshop; and can also hold the positions of a supervisor, laboratory assistant, technician, engineer of the workshop for the preparation and pumping of oil and gas, and a junior researcher.

### **7M05318 - Double Degree Chemical Physics (MEPhI)**

#### **7M05320 - Chemical Physics**

A graduate of the specialty "Chemical Physics" can work in research and design institutes, energy, technical activities related to renewable energy sources, production of cast iron, steel and ferroalloys, ZD technology, modeling of technological processes, at enterprises engaged in design, mining and processing and defense industry, printing house, mining engineer.

### **7M07104 - Chemical technology of explosives and pyrotechnics**

#### **8D07103 - Chemical technology of explosives and pyrotechnics**

A graduate of the specialty "Chemical technology of explosives and pyrotechnic means" can work in research and design institutes, forensic organizations, enterprises engaged in the design, development and manufacture of explosives and pyrotechnic substances, mining and processing and defense industries blasting technologist, explosives control operator, criminologist, engineer at mining enterprises, pyrotechnic in cinematography, pyrotechnic engineer.



## GRADUATES ARE OUR PRIDE



**EPTOERGOZHIN EDIL  
ERGOZHAEVICH**  
Faculty graduate in 1963,  
academician of NAS RK,  
rector of KazNU  
(1986-1988)



**ARYSTANBEKOVA  
AKMARAL HAYDARKYZY**  
Faculty graduate  
1971, Minister of Foreign  
Affairs of the KazSSU  
(1989-1991)



**ZHARMENOV  
ABDURASUL ALDASHULY**  
1976 Faculty graduate,  
academician of the National  
Academy of Sciences of the  
Republic of Kazakhstan, general  
director of the RGP "National  
center for complex processing of  
mineral raw materials of the  
Republic of Kazakhstan»



**ZHUMAKANOV  
VLADIMIR ZEYNOLLOVICH**  
Faculty graduate 1977  
year, lieutenant general,  
statesman, chairman of the  
national security committee  
of the republic of Kazakhstan  
(2015-2016), Almaty, secretary  
of the security council of the  
Republic of Kazakhstan,  
assistant to the president's park  
(2016-2018)



**SHAMSHIDINOVA  
KULYASH NOGATAEVNA**  
Faculty graduate 1979  
years, doctor philological  
sciences, professor, chairman  
of the board of JSC "orken"  
(10.2009-02.2019)  
Minister of Education and  
Science Kazakhstan (2019).  
Chairman of the Board of AEO  
"Nazarbayev Intellectual  
Schools"



**KATRANOVA  
ZELINA KANIKYZY**  
Faculty graduate  
1981, general  
director of the company  
"Eastern ore management»



## EDUCATIONAL PROGRAM

### BACHELOR

#### **6B05053 Physical and chemical sciences**

B053 - Chemistry

6B05301 - Chemistry

6B05311 - Nanomaterials and nanochemistry

#### **6B071 Engineering and Engineering**

B060 - Chemical Engineering and Processes

6B07102 - Chemical Engineering

6B07103 - Chemical technology of inorganic substances

6B07104 - Chemical technology of organic substances

#### **6B072 Manufacturing and processing industries**

B072 - Technology of pharmaceutical production

6B07201 - Technology of pharmaceutical production

B068 - Food production

6B07202 - Food chemistry and technology in English (Food chemistry and technology)

6B07203 - Food Chemistry and Technology

### MASTER

#### **7M015 Training of teachers in natural science subjects**

M013 - Training of teachers of chemistry

7M01503 - Chemistry

#### **7M053 Physical and chemical sciences**

M089 - Chemistry

7M05301 - Chemistry

7M05302 - Chemistry

7M05318 - Chemical Physics (double degree program with MEPhI, Russia)

7M05320 - Chemical Physics

7M05319 - Chemical Materials Science

(double degree program with Moscow State University, Russia)

#### **7M071 Engineering and Engineering**

M097 - Chemical Engineering and Processes

7M07101 - Petrochemistry

7M07102 - Petrochemistry (double degree program with USPTU, Russia)

7M07103 - Chemical Engineering

7M07104 - Chemical technology of explosives and pyrotechnics

7M07105 - Chemical technology of inorganic substances

7M07106 - Chemical technology of organic substances

7M07121 - Nanomaterials and nanotechnology in chemistry (RUDN University)

7 M07131 - Nanomaterials and nanotechnology in chemistry (MISiS)

#### **M108 - Nanomaterials and nanotechnology**

7M07122 - Nanomaterials and nanotechnology in chemistry

#### **7M072 Manufacturing and service industries**

#### **M115 - Petroleum Engineering**

7M07201 - Oil and gas business

M072 - Technology of pharmaceutical production

7M07203 - Technology of pharmaceutical production



PHD

**D089 - Chemistry**

8D05301 - Chemistry

**D097 - Chemical Engineering and Processes**

8D07101 - Petrochemistry

8D07102 - Chemical Engineering

8D07103 - Chemical technology of explosives and pyrotechnics

8D07104 - Chemical technology of inorganic substances

8D07105 - Chemical technology of organic substances

**D108 - Nanomaterials and nanotechnology in chemistry**

8D07113 - Nanomaterials and nanotechnology in chemistry



Research work of  
Sh.N.Nazarkylova  
in chemical laboratory



Prepare samples  
to analyze in chemical  
laboratory

Department of General  
and Inorganic Chemistry

Department of Analytical,  
Colloidal Chemistry and  
Technology of Rare Elements

Department  
of physical chemistry,  
catalysis and petrochemistry

Department of Chemistry  
and Chemical Technology  
of Organic Substances,  
Natural Compounds and Polymers

Department  
of Chemical Physics  
and Materials Science

Department  
of technology of  
metals and minerals



## STUDENTS - ARE REAL AND FUTURE FACULTY

*The faculty of chemistry and chemical technology is more than just a faculty...*

*Our faculty provides students all the opportunities for personal and professional growth. It also gives you the opportunity to learn and progress in comfort and safety in our beautiful town KazNUgrad.*

Faculty teachers provide not only deep scientific knowledge, but also contribute to the formation of an active life position and self-realization, which is important for the future life of every young person.

Our faculty is one of the best faculties in KazNU!

I should note that almost 90% of our students study on a state grant, and students studying on a paid basis, are given the opportunity to transfer to a grant.

I want the youth of Kazakhstan to receive a quality education, and OUR FACULTY is the right choice!



I am an undergraduate graduate of Hailunyang University in the Chinese province of Sundan. In the year I graduated from university, my family and I discussed the issue of continuing my studies in a master's program and choosing a university. I wanted to continue my studies abroad, so

"Got acquainted" with many universities in the world via the Internet. My choice fell on the Faculty of Chemistry and Chemical Technology of Al-Farabi KazNU. Out of hundreds of educational institutions in the world, KazNU interested me, firstly, in the beauty of its location in the foothills, and secondly, in the level

and directions of scientific research of the faculty. This year II am finishing my magistracy. I got a good education in two years. Faculty teachers are always happy to teach young people, share their experience and knowledge. I am proud that I studied at the Faculty of Chemistry of KazNU.







## STUDENT LIFE

The building of the faculty is located on the territory of the university campus, located in one of the most picturesque districts of Almaty and known as "KazGUgrad". The student campus is considered one of the most beautiful in Central Asia and has everything necessary for comfortable living, learning and active leisure: academic buildings, dormitories, a library, the Students Palace named after O.A. Zholdasbekova, sports complex, swimming pool named after Olympic champion D. Balandin, Internet center, Student Service Center Keremet, shops.



Winners of the Grand Prix  
of the competition  
"The best student group - 2019",  
Curator-adviser PhD  
L.K. Myltykbaeva



3rd year students  
of the specialty CHTOS  
on industrial practice  
at the Atyrau oil refinery



Festival "Student Spring»



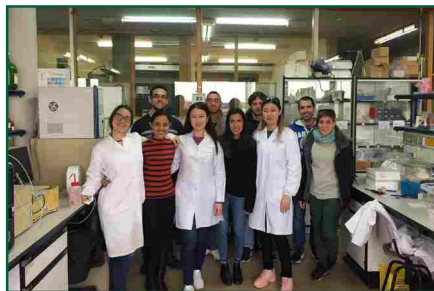
Creation of a technological  
project at the student olympiad in  
republican universities



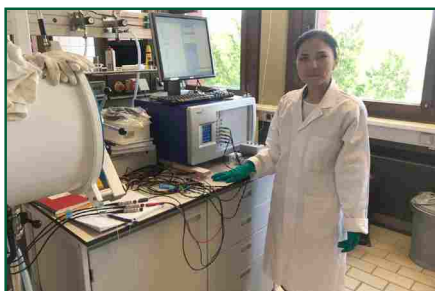
## FOREIGN PRACTICE



Undergraduates of the Department of Physical Chemistry, Catalysis and Petrochemistry in Beijing Petroleum University, PRC



2nd year undergraduates of the specialty "Chemistry", arrived for a semester study at the University of Valencia for academic mobility, Spain



Doctoral student of the Department of Analytical, Colloidal Chemistry and Technology of Rare Elements Abildine Ainaz at the Research Laboratory of the University of Oldenburg, Germany



Doctoral student of the Department of Physical Chemistry, Catalysis and Petrochemistry Akhmetbek Ermukhan in the research laboratory of Professor Andrei Vavasori, University of Ca Foscari, Italy



## DOUBLE - DIPLOMA EDUCATION

Under the master's degree program, preparation for two-degree master's programs with foreign universities is provided:



Clord Bernard  
University Lyon-1  
(France)



Beijing Petroleum  
University  
(PRC)



D.I. Mendeleev  
Russian University of  
Chemical Technology



University of Lorraine,  
Nancy (France)



Belgorod State  
National  
research university



Russian Friendship  
University  
people  
(RUDN University)



National Research  
Technological University  
«MISiS»



AL-FARABI KAZAKH NATIONAL UNIVERSITY  
Faculty of Chemistry and Chemical Technology

INTERNATIONAL COOPERATION



COOPERATION WITH DOMESTIC ENTERPRISES

