



ATYRAU OIL AND
GAS UNIVERSITY

World-class University in the energy sector



INDUSTRIAL UNIVERSITY (since 1959)



Partnership with industry –
basis for improving quality
assurance of Academic
programs at
Atyrau Oil and Gas University

01

Academic
excellence

02

Research
ecosystem

03

Global
leadership

~3400
students

~208 lecturers

25 undergraduate
programs

5 master's
programs

3 MBA programs

2 PhD programs

23 graduates of
the program
"Bolashak"
STAFF STRUCTURE

Stanford University
University of Oxford
Colorado School of Mines
University of Reading
University of Warwick
Université de Lorraine
Beijing Institute of Tech



CURRENT SITUATION AT THE UNIVERSITY

Institute of Petrochemical Engineering and Ecology

Opened: December 2020

Financed by «ATYRAU REFINERY» LLP

Center for Industry Technological Competencies of ME RK

Created by order of the Minister of Energy of the Republic of Kazakhstan No. 52 dated 02/10/2021

Industrial and technological polygon

Start of construction: April 2021

Financed by "Embamunaygas" JSC

Hub of the Creative Industry

Start of construction: March 2021

Regional center for creative directions, export of creative products of the Republic of Kazakhstan

Caspian Sustainable Development Goals Hub

The Multi-Campus Network University was established in September 2020. Unites 11 universities of Kazakhstan, Russia, and Azerbaijan

Dual Education Programs

The members of Industrial Committee participate in dual education program

Certification of graduates

Partner: Edil – Oral Company





An internationally recognized **INDUSTRIAL UNIVERSITY** with **global partners** providing the energy sector with the **professional specialists/experts**, technology transfer and **knowledge-intensive research work** for oil and gas companies

ADVANTAGES

- Localization – **Center of Oil & Gas Industry**
- **Dual education system** –technological polygon
- Approbation of new technologies, enhanced oil recovery, big data – **own oilfield**
- Industry **R&D center** with industrial and foreign partners
- Impact on the economy of the region, country – **social, economic, and technological effects**

Faculties

Educational programs

Academic partners

Industrial partners

School of Petroleum
Engineering and
Geosciences

- Oil & Gas Engineering
- Geology
- Geophysics
- Geosystems Engineering



School of Engineering

- Chemical engineering
- Civil Engineering
- Mechanics
- Environmental engineering



School of Energy

- Energy transition
- Renewable energy sources
- Hydrogen energy
- Electrical engineering



School of Information
Technology

- Information Systems
- Cybersecurity
- Artificial Intelligence
- Big data



Graduate School of
Business

- MBA «Oil and gas business»
- MBA «Sustainable development»
- MBA «Human Resource Management»



HIGHER EDUCATION

FOUNDATION

programs of multilingual education

BACHELOR'S DEGREE

recruitment of 500 applicants per year (of which 100 are foreign)

MASTER'S DEGREE

recruitment of 100 undergraduates per year (of which 20 are foreign)

DOCTORATE

recruitment of 20 doctoral students per year

ADDITIONAL EDUCATION

Courses for the top management of the Energy Industry

Short term courses for Industry

PROFESSIONAL CERTIFICATION



International accreditations
ABET, ASIIN, FIBAA, AMBA



Certification standards
ENI, Total, BP, SE, Huawei



League of Academic Integrity



25-30 foreign professors



Foreign doctors, visiting professors



Admission university exams by a partner- UStudy

CENTER FOR INDUSTRIAL TECHNOLOGICAL COMPETENCIES OF THE ME RK

Created by order of the Minister of Energy of the Republic of Kazakhstan No. 52 dated 02/10/2021

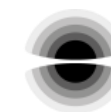


MINISTRY OF ENERGY OF THE RK

Projects \ platforms
of the ME RK

MARKET AND PUBLIC

Industry start-up
innovations



astana hub

CENTER FOR INDUSTRIAL TECHNOLOGICAL COMPETENCIES OF THE ME RK

- Analysis of technological trends and determination of priorities for technological development
- Drawing up a "technological map" of the oil and gas petrochemical industry of the Republic of Kazakhstan.
- Consulting on advanced technologies that meet the needs of the industry in future, in accordance with the specifics of the enterprise
- Assistance in the implementation of innovative start-up developments in production
- «Foresight forecasting» in the direction of the «profession of the future»
- Development of professional standards, experimental educational programs for the «profession of the future»
- Analysis of the labor resources of the industry, development of recommendations for retraining and advanced training of labor resources
- Industry Business Accelerator

RESEARCH INSTITUTIONS



COMPANIES/ BUSINESS



INTERNATIONAL PARTNERS

(UW, PERONAS Uni. etc.)

Effects for the State

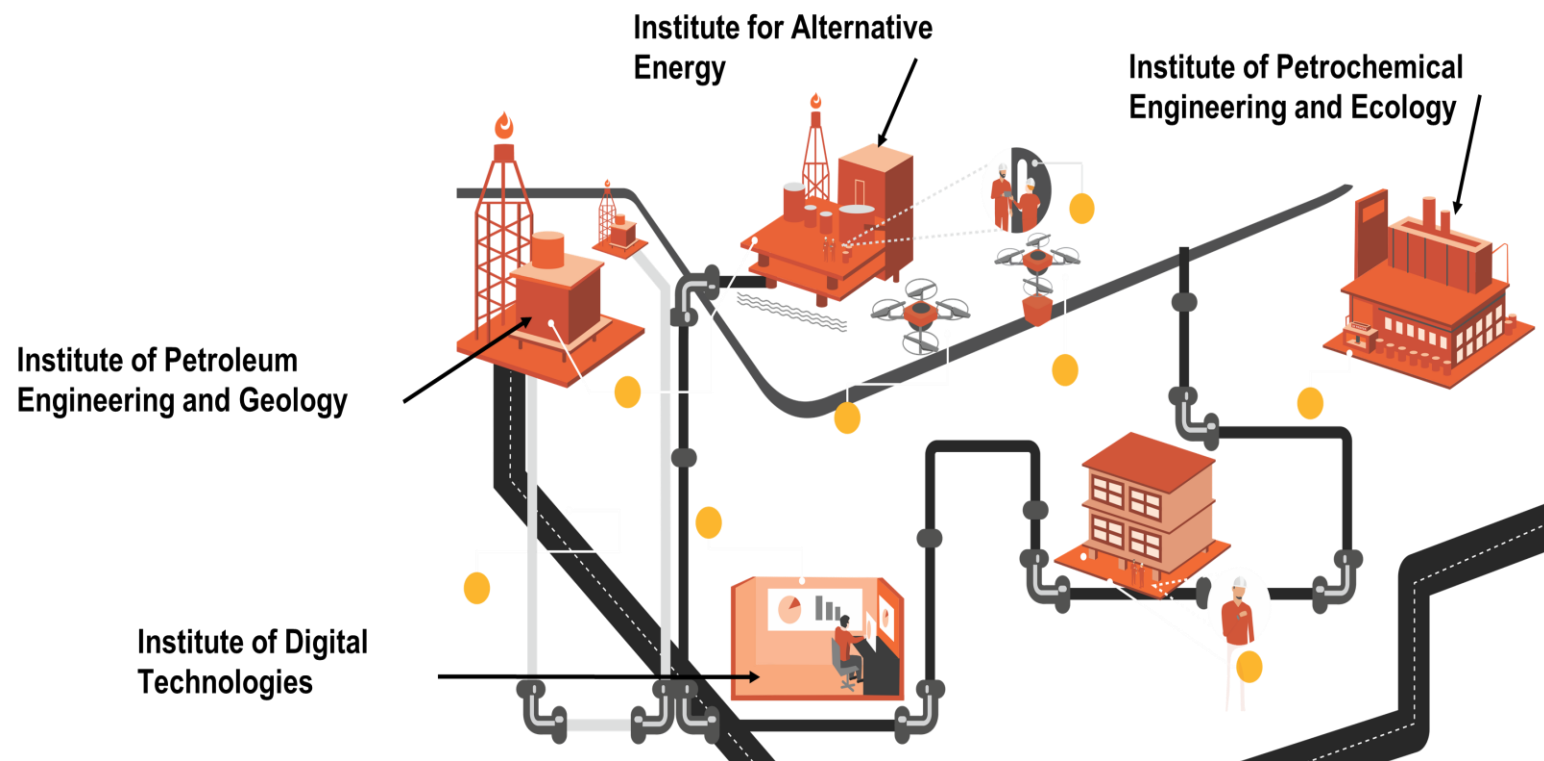
1. Analytics of technology trends, industry priorities
2. Science-Based Reforms Through Foresight Research
3. Improving the quality of the development of the obligations of subsoil users (1%)

Effect for Business

1. Increasing involvement in decision-making at the state level
2. Communication with science / international institutions / companies and business
3. Platform for exchange of experience / best practices / analytics

Effect for Research Institutes, Universities

1. Direct communication with the consumer of innovations
2. Raising awareness of the real requirements of the industry
3. Qualitative growth of business processes / development indicators



International research labs

- Laboratory "Smart Field"
- Laboratory Flow Assurance
- Visualization and Augmented Reality Laboratory
- Laboratory of Industrial Design

New directions of study

- Smart Field, Big Data and Artificial Intelligence (for Geophysics and Geology)
- Technology of new materials in the oil and gas industry
- Remote control of equipment in the oil and gas industry
- Technologies of the future in "Maintenance and repair"
- Reliability and Predictive Analytics Engineer

The members of Industrial Committee participate in Dual Education program

Analogue of the TCO rotational camp



Dual education

Trainings, training of specialists

Professional certification



ТЕНГИЗШЕВРОЙЛ



WorleyParsons
resources & energy



КАЗАКТЕЛЕКОМ



КазМұнайГаз
NATIONAL COMPANY ҰЛТТЫҚ КОМПАНИЯСЫ



INDUSTRIAL POLYGON

Start of construction: April 2021

Completion of construction: January 2022

Financed by: Embamunaigas JSC

Industrial partner «Embamunaigas» JSC

Professional development of employees

Holding contests «The Best in Profession»



Personnel

- Consolidation of the acquired skills and knowledge
- Process technology study
- Mastering production processes in real conditions



Industry

CERTIFICATION



A permanent dialogue platform between scientific, academic, service and production companies to increase the potential of human resources, jointly solve problems and achieve high results.



ATYRAU OIL AND
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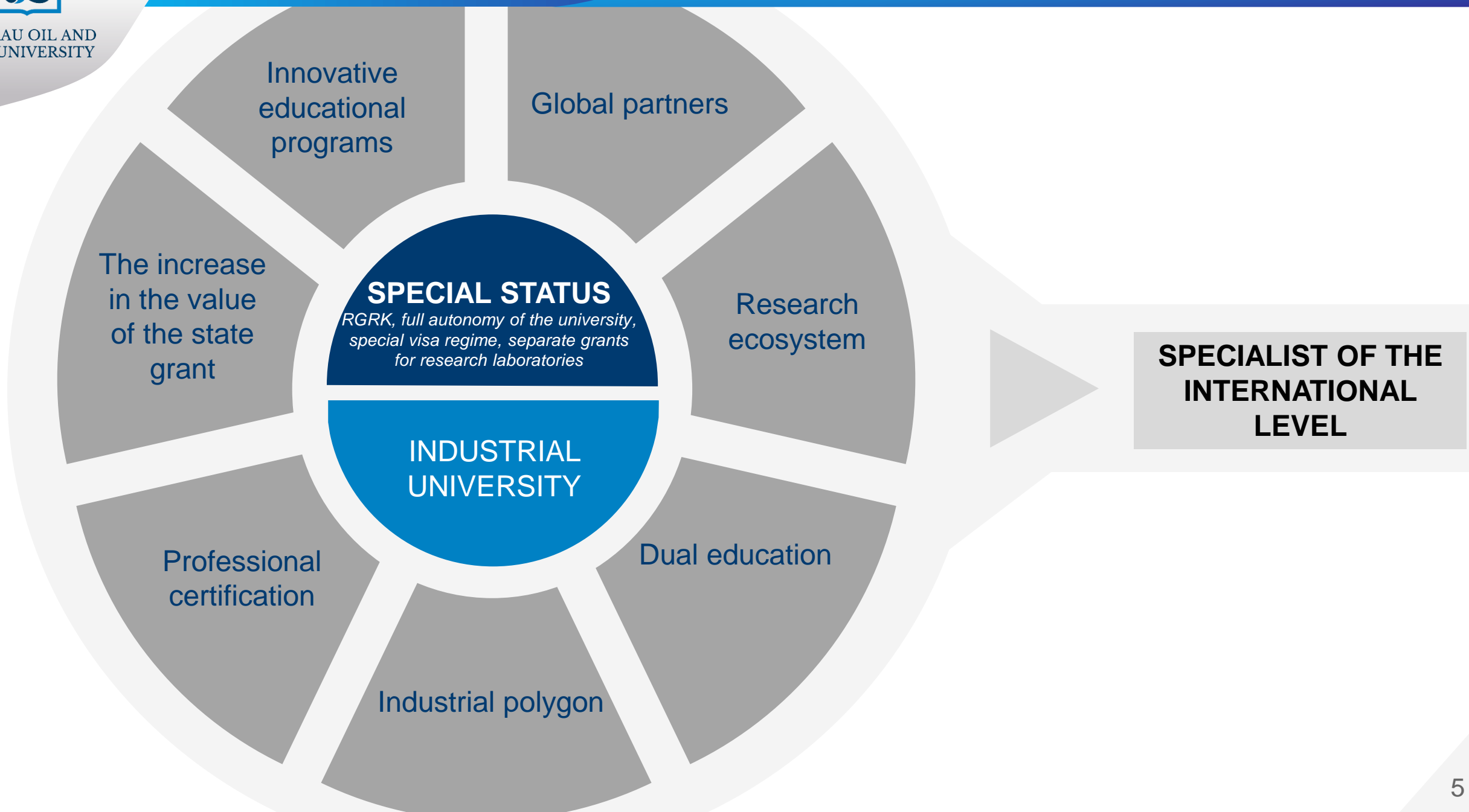
International Certification of our Graduates



EO.kz
EDIL - ORAL.KZ



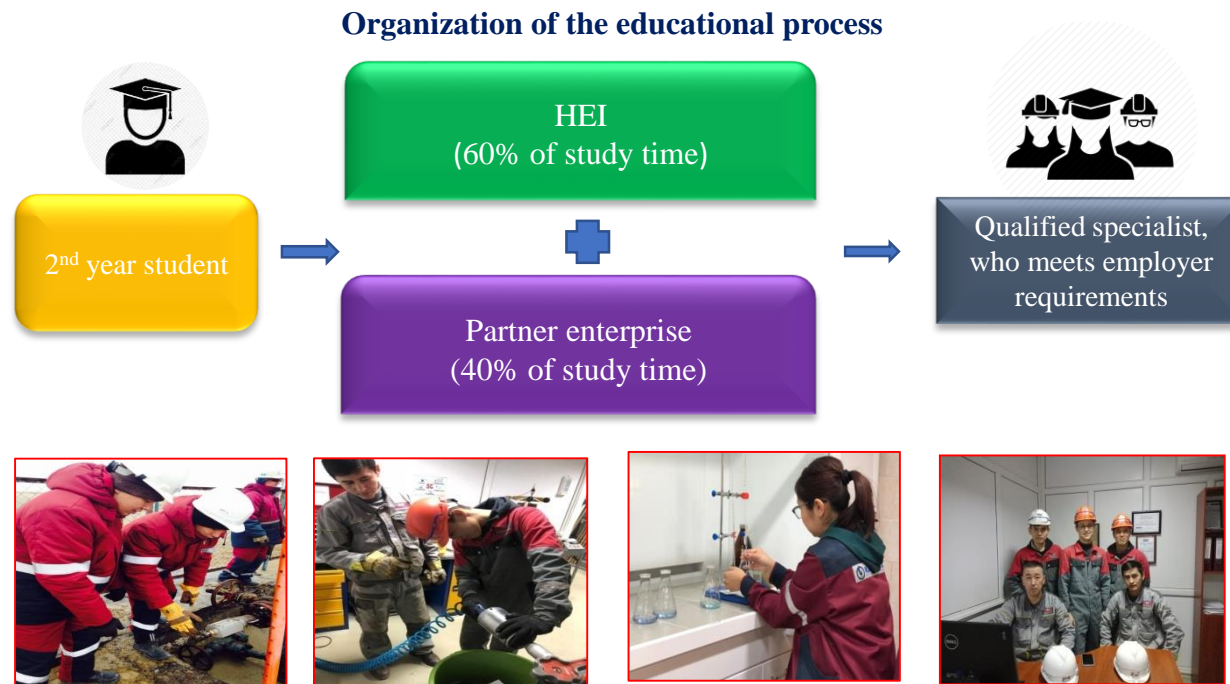
Edil – Oral is our industrial partner that certificates employees for Big Oil Producing companies and it does so with our students





DUAL TRAINING SYSTEM

In 2015 Atyrau University of Oil and Gas launched dual education program in «Development and operation of oil and gas fields» in partnership with the "Embamunaigas" JSC.



Key performance indicators of a dual learning system for a student

- *students gaining labor skills*
- *thorough knowledge of the main production processes*
- *accumulation of seniority*
- *obtaining a certificate (certificate) for working specialties*
- *the acquisition of knowledge and experience conducive to professional development*
- *87% of respondents-students are interested in a dual learning system*

Strategic partners





UNIVERSITY CENTERS AND LABORATORIES

Centers and laboratories are aimed at applying the theory obtained during lectures in practical work.

SCIENTIFIC CENTERS

→ SCIENTIFIC CENTER FOR GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

→ RESEARCH CENTER FOR REGIONAL ENVIRONMENTAL PROBLEMS

→ CENTER FOR ECONOMICS AND SOCIAL AND HUMANITARIAN RESEARCH

Scientists of AOGU named after S.Utebayev are the authors of more than 20 Patents, of which the following go through the stage of commercialization:

"Octane-increasing additive to gasoline"

"Low-viscosity marine fuel"

"Composition for strengthening dirt roads"

"Technology for producing bitumen"

"Method of combating hydrate formation of natural gas"



- Computer class for modeling oilfield development processes
- Drilling simulator



LABORATORIES

Laboratory of Engineering Profile
"PETROCHEMISTRY"

Research Laboratory "RESEARCH OF OIL AND OIL PRODUCTS"

Research Laboratory "GEOECOLOGY"



Innovative laboratories:

- Laboratory of production of petrochemical products
- Well Production Gathering and Processing Laboratory
- Virtual field
- Research of oil and oil products



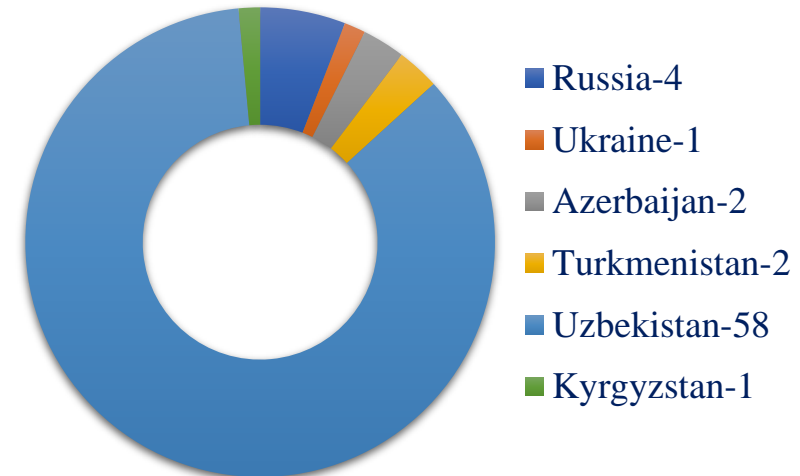
International students

- Politecnico di Torino (Italy)
- University of chemistry and technology in Prague (Czech Republic)
- Jan Amos Komensky University of Applied Sciences in Leszno (Poland)
- Azerbaijan state oil and industry university (Azerbaijan Republic)
- Astrakhan state technical university (Russian Federation)



Incoming mobility

- Azerbaijan technical university (Azerbaijan Republic)
- Ufa state petroleum technological university (Bashkortostan, Russian Federation)
- Karaganda state technical university (Kazakhstan)





INTERNATIONAL INTERNSHIPS AND PRACTICES



9 students and 1 member of staff underwent practical training at the Petromidia factory at KMG International-Rompetrol Rafinare in the city of Constanta (Romania), 2019.



Professor AOGU Daryn Shabdirov underwent a scientific internship for teachers on the framework of the program “One Belt One Way” in Beijing (China), 2019.



Professor of the Department of Oil and Gas Engineering, Nurken Akhmetov participated in the IV International Teachers' Week under the program "ERASMUS + KA107", Leszno, Poland



ASSOCIATION OF THE STATE UNIVERSITIES OF THE CASPIAN REGION COUNTRIES

Association of the state universities of the Caspian region countries was established in 1996

The main activities of the Association are the development of a unified system of university education in the specialties and areas of higher professional education, undergraduate / postgraduate programs and doctoral studies;

- study of the ecology of the Caspian Sea;
- improving the technology of artificial reproduction of the Caspian sturgeon;
- development of reclamation methods for water areas and territories contaminated with oil products;
- legal problems of environmental protection of the Caspian region countries;
- the history of the peoples inhabiting the Caspian region.

AOGU Chairmanship at ASUCRC

On October 1, 2019, the XXII General Assembly of the Association of the state universities of the Caspian region countries was held at Guilan University (Iran). In the framework of this Assembly Atyrau Oil and Gas University named after Safi Utebayev transferred the chairmanship to Guilan University. During the chairmanship in the Association, S.Utebayev AOGU have done a lot of work on mutual cooperation, with the Universities of Caspian region countries and presented the collective monograph "Caspian: aspiration for the future."

