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FOR THE STUDY PROGRAMME

6B07109 MECHANICAL ENGINEERING
- BACHELOR OF ENGINEERING AND TECHNOLOGY -

*AT THE NP JSC "CASPIAN UNIVERSITY OF TECHNOLOGY AND ENGINEERING NAMED AFTER
SH. YESSENOV"*

THE ACCREDITATION IS VALID UNTIL 30TH OF SEPTEMBER 2032.

BAYREUTH, 12 SEPTEMBER 2024



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FOR THE STUDY PROGRAMME

6B07210 OIL AND GAS ENGINEERING
- BACHELOR OF ENGINEERING AND TECHNOLOGY -

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FOR THE STUDY PROGRAMME

8D07208 GEOLOGY AND MINERAL DEPOSIT EXPLORATION

- DOCTOR OF PHILOSOPHY (PHD) -

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FOR THE STUDY PROGRAMME

6B06103 COMPUTER ENGINEERING AND SOFTWARE
- BACHELOR IN THE FIELD OF INFORMATION AND COMMUNICATION
TECHNOLOGIES -

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6B07111 TRANSPORT, TRANSPORT ENGINEERING AND TECHNOLOGIES
- BACHELOR OF ENGINEERING AND TECHNOLOGY -

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6B07106 ELECTRIC POWER ENGINEERING
- BACHELOR OF ENGINEERING AND TECHNOLOGY -

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6B07307 CADASTRE

- BACHELOR OF ENGINEERING AND TECHNOLOGY -

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FOR THE STUDY PROGRAMME

6B11201 LIFE SAFETY AND ENVIRONMENTAL PROTECTION

- BACHELOR IN THE FIELD OF SERVICES -

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И ОБЕСПЕЧЕНИЯ КАЧЕСТВА

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ПРИСУЖДАЕТ СЕРТИФИКАТ КАЧЕСТВА



ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

6B07109 МАШИНОСТРОЕНИЕ

- БАКАЛАВР ТЕХНИКИ И ТЕХНОЛОГИЙ -

НАО «КАСПИЙСКИЙ УНИВЕРСИТЕТ ТЕХНОЛОГИЙ И ИНЖИНИРИНГА ИМЕНИ Ш.ЕСЕНОВА

АККРЕДИТАЦИЯ ДЕЙСТВИТЕЛЬНА ДО 30 СЕНТЯБРЯ 2032.

БАЙРОЙТ, 12 СЕНТЯБРЯ 2024

S. Kempgen

ПРОФЕССОР, ДР. СЕБАСТЬЯН КЕМПГЕН
ПРЕДСЕДАТЕЛЬ АККРЕДИТАЦИОННОЙ КОМИССИИ

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ИНСТИТУТ АККРЕДИТАЦИИ, СЕРТИФИКАЦИИ
И ОБЕСПЕЧЕНИЯ КАЧЕСТВА

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ПРИСУЖДАЕТ СЕРТИФИКАТ КАЧЕСТВА



ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

7M07109 МАШИНОСТРОЕНИЕ

- МАГИСТР ТЕХНИЧЕСКИХ НАУК -

НАО «КАСПИЙСКИЙ УНИВЕРСИТЕТ ТЕХНОЛОГИЙ И ИНЖИНИРИНГА ИМЕНИ Ш.ЕСЕНОВА

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ПРИСУЖДАЕТ СЕРТИФИКАТ КАЧЕСТВА



ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

6B07210 НЕФТЕГАЗОВЫЙ ИНЖИНИРИНГ
- БАКАЛАВР ТЕХНИКИ И ТЕХНОЛОГИЙ -

НАО «КАСПИЙСКИЙ УНИВЕРСИТЕТ ТЕХНОЛОГИЙ И ИНЖИНИРИНГА ИМЕНИ Ш.ЕСЕНОВА»

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ПРИСУЖДАЕТ СЕРТИФИКАТ КАЧЕСТВА



ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

7M07210 НЕФТЕГАЗОВОЕ ДЕЛО
- МАГИСТР ТЕХНИЧЕСКИХ НАУК -

НАО «КАСПИЙСКИЙ УНИВЕРСИТЕТ ТЕХНОЛОГИЙ И ИНЖИНИРИНГА ИМЕНИ Ш.ЕСЕНОВА»

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ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

**8D07208 ГЕОЛОГИЯ И
РАЗВЕДКА МЕСТОРОЖДЕНИЙ ПОЛЕЗНЫХ ИСКОПАЕМЫХ
- ДОКТОР ФИЛОСОФИИ (PHD) -**

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ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

**6V06103 Вычислительная техника и программное обеспечение
- БАКАЛАВР В ОБЛАСТИ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ
ТЕХНОЛОГИЙ -**

НАО «КАСПИЙСКИЙ УНИВЕРСИТЕТ ТЕХНОЛОГИЙ И ИНЖИНИРИНГА ИМЕНИ Ш.ЕСЕНОВА»

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ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

6B07111 ТРАНСПОРТ, ТРАНСПОРТНАЯ ТЕХНИКА И ТЕХНОЛОГИИ

- БАКАЛАВР ТЕХНИКИ И ТЕХНОЛОГИЙ -

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ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

6B07106 ЭЛЕКТРОЭНЕРГЕТИКА

- БАКАЛАВР ТЕХНИКИ И ТЕХНОЛОГИЙ -

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ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

6B07307 Кадастр

- БАКАЛАВР ТЕХНИКИ И ТЕХНОЛОГИЙ -

НАО «КАСПИЙСКИЙ УНИВЕРСИТЕТ ТЕХНОЛОГИЙ И ИНЖИНИРИНГА ИМЕНИ Ш.ЕСЕНОВА»

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Председатель Аккредитационной Комиссии

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ПО ОБРАЗОВАТЕЛЬНОЙ ПРОГРАММЕ

**6В11201 БЕЗОПАСНОСТЬ ЖИЗНЕДЕЯТЕЛЬНОСТИ
И ЗАЩИТА ОКРУЖАЮЩЕЙ СРЕДЫ
- БАКАЛАВР В ОБЛАСТИ УСЛУГ -**

НАО «КАСПИЙСКИЙ УНИВЕРСИТЕТ ТЕХНОЛОГИЙ И ИНЖИНИРИНГА ИМЕНИ Ш.ЕСЕНОВА»

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Accreditation Report

Programme Accreditation at the

CASPIAN STATE UNIVERSITY OF TECHNOLOGY AND ENGINEERING

NAMED AFTER SH. YESSENOV

Aktau, Republic of Kazakhstan

Transport, Transport Engineering and Technologies (Bachelor), Electric Power Engineering (Bachelor), Life Safety and Environmental Protection (Bachelor), Computer Engineering and Software (Bachelor), Cadastre (Bachelor), Mechanical Engineering (Bachelor/Master), Oil and Gas Engineering (Bachelor/Master), Geology and Mineral Deposit Exploration (PhD)

I Procedure

Date of contract: 24 March 2023

Date of the submission of self-assessment report: 30 June 2023

Date of site visit: 7-9 April 2024

Attendance by ACQUIN office: Dr. Jasmine Rudolph, Svitlana Kondratova, Maria Zinsmeister

Accreditation decision: 12. September 2024

Peer review experts:

- **Gulsim Aitkhozhayeva**, PhD, Kazakh National Agrarian Research University, Department of Land Resources and Cadastre, Lecturer
- **Professor Dr. rer. nat. Torsten Braun**, University of Bern, Switzerland, Institute of Computer Science, Communication and Distributed Systems, Professor of Computer Science
- **Professor Dr. rer. nat. Claudia Frohn-Schauf**, Bochum University of Applied Sciences, Department of Mechatronics and Mechanical Engineering, Professor of Engineering Mathematics and Numerics
- **Sezim Mustapayeva**, PhD Satbayev University, Department of Geological survey, search and exploration of mineral deposits, Associate Professor
- **Professor Dr.-Ing. habil. Philip Jaeger**, Clausthal University of Technology, Institute of Subsurface Energy Systems, Chair of Drilling and Production
- **Professor Dr.-Ing. habil. Martin Wolter**, Otto-von-Guericke-University Magdeburg, Chair of Electric Power Networks and Renewable Energy
- **Aliya Zabiyeva**, candidate of technical sciences (PhD), Eurasian National University L. Gumilev

- **Zhanar Zhumadilova**, PhD, Satbayev University, Deputy Director of the Bassenov Institute of Architecture and Civil Engineering
- **Fred Haertelt**, Central QM-Coordination (BEG/QMM), Bosch Engineering GmbH
- **Ualikhan Sadyk**, Computer Science SDU University, PhD student

The **Assessment Report** of the peer-review experts is **based on** the self-assessment report of the Higher Education Institution (HEI) and extensive discussions with the HEI management, deans and/or heads of the departments, heads of study programme(s), lecturers, staff representatives, students, and alumni.

The basis of the **Assessment Criteria** is part 1 of the “Standards and Guidelines for Quality Assurance in the European Higher Education Area” (ESG) in the current official version. For PhD study programmes the Salzburg Recommendations are considered additionally. At the same time the national context, particularly the national regulations regarding the establishment of study programmes, are taken into account.

Content

I	Procedure	1
II	Introduction	6
	1 Short profile of HEI	6
	2 General information on the study programmes	8
III	Implementation and assessment of the criteria.....	15
	1 ESG Standard 1.1: Policy for quality assurance.....	15
	1.1 Implementation	15
	1.2 Assessment.....	17
	1.3 Conclusion.....	18
	2 ESG Standard 1.2: Design and approval of programmes	18
	2.1 Implementation	19
	2.2 Study programmes	20
	2.3 Assessment.....	27
	2.4 Conclusion.....	40
	3 ESG Standard 1.3: Student-centred learning, teaching, and assessment	40
	3.1 Implementation	40
	3.2 Assessment.....	42
	3.3 Conclusion.....	43
	4 ESG Standard 1.4: Student admission, progression, recognition, and certification	43
	4.1 Implementation	43
	4.2 Assessment.....	46
	4.3 Conclusion.....	47
	5 ESG Standard 1.5: Teaching staff.....	47
	5.1 Implementation	47
	5.2 Assessment.....	51
	5.3 Conclusion.....	53
	6 ESG Standard 1.6: Learning resources and student support	53
	6.1 Implementation	54
	6.2 Assessment.....	57
	6.3 Conclusion.....	58
	7 ESG Standard 1.7: Information management.....	58
	7.1 Implementation	58
	7.2 Assessment.....	59
	7.3 Conclusion.....	60
	8 ESG Standard 1.8: Public information	60
	8.1 Implementation	60
	8.2 Assessment.....	61
	8.3 Conclusion.....	61
	9 ESG Standard 1.9: On-going monitoring and periodic review of programmes.....	62

9.1	Implementation	62
9.2	Assessment	63
9.3	Conclusion	63
10	ESG Standard 1.10: Cyclical external quality assurance	63
10.1	Implementation	64
10.2	Assessment	64
10.3	Conclusion	65
IV	Recommendation to the Accreditation Commission of ACQUIN	66
1	Assessment of compliance the Standards and Guidelines in the Higher European Area (ESG) in the actual official version and the German Council of Science and Humanities (WR)	66
2	Accreditation Recommendation	67
V	Decisions of the Accreditation Commission of ACQUIN	72

II Introduction

The experts would like to thank the representatives of the HEI as well as students that they have taken part in the discussions and willingly shared information and their views during the site visit. The discussions are valuable not only for the assessment of the institution, but also for a better understanding of the legal and sociocultural context of the local higher education system.

Evaluation basis for the peer-review experts is the self-assessment report of the HEI as well as intensive discussions during the site visit with the HEI management, deans and/or heads of the departments, head(s) of the study programme(s), study programme(s) coordinators, teachers, lecturers, administrative staff, students, and graduates.

Main objective of the accreditation procedure is to assess the quality of the study programmes and compliance with the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG). The ESG standards are applied as main assessment criteria in the international accreditation procedure. They are complemented with criteria for structured doctoral programmes (Salzburg Recommendations). In addition, the respective country-specific criteria and standards are taken into account.

A group of experts was set up, which ensured that all areas relevant to the accreditation procedure (e.g. legal, structural, social etc. aspects) as well as the ESG, the Salzburg Recommendations, and national criteria were considered. The peer-review experts include professors, representatives of the professional practice and the student representative. A certificate with the ACQUIN seal is awarded upon accreditation of the study programmes.

1 Short profile of HEI

The Caspian University of Technology and Engineering, named after Sh. Yessenov, was founded in 1976. Its operations are governed by a Charter approved on May 25, 2020, by the Committee of State Property and Privatization of the Ministry of Finance of the Republic of Kazakhstan. The university is officially registered with the Department of Justice of the Mangystau Region in Aktau city and holds a state license, issued on December 14, 2012, under number 12019076, allowing it to conduct educational activities in higher and postgraduate education. The university was renamed in honour of the distinguished geologist Shakhmardan Yessenuly Yessenov, who discovered oil and gas fields in Mangystau and Western Kazakhstan and received prestigious awards such as the Lenin Prize and State Prize of the Republic of Kazakhstan. The renaming took place on July 1, 1995, following Resolution No. 767 by the Cabinet of Ministers of the Republic of Kazakhstan, based on a proposal from the leadership of the Mangystau region. Legally, the university is a non-profit Joint Stock Company since

2020. The Ministry of Science and Higher Education of the Republic of Kazakhstan is the governing body in the respective field, empowered to own and utilize a 100% state-owned block of shares of the Non-Profit Joint Stock Company "Caspian University of Technology and Engineering named after Sh. Yessenov".

The faculties of the university are located in 2 academic buildings. The university's infrastructure includes educational and laboratory buildings, student dormitories, educational production facilities, dining facilities, medical services, assembly halls and conference rooms, libraries, and reading rooms. The university operates specialized laboratories aimed at fully supporting the educational process.

The organizational structure of the university includes 5 faculties: Faculty of Education, Faculty of Business and Law, Faculty of Science and Technology, Faculty of Tourism and Languages, Faculty of Engineering

Further bodies of the university are the Maritime Academy, the School of Higher Education, 19 departments, a maritime training centre, a military department, a college, and 27 structural divisions.

The total number of students is 7,258, including 6,722 Bachelor students, 515 Master students and 22 doctoral students. As for the sources of funding, 1,901 students receive the state educational scholarship, which is publicly funded. 5,357 students are studying at the expense of their own funds and 209 at the expense of local executive companies and funds.

The university's teaching staff consists of 370 people, including 284 full-time employees, 54 part-time employees, 13 invited foreign professors and 19 invited domestic teachers and professors. The full-time administrative staff consists of 291 people, including administrative and management staff, service staff, educational support staff and military department staff.

2 General information on the study programmes

6B07111 Transport, Transport Engineering and Technologies (Bachelor)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2004
Faculty/ department	Engineering
Standard period of study (semesters)	8
Number of ECTS credits	240
Number of study places	25
Number of students currently enrolled	85 (1st year-19, 2nd year-17, 3rd year-18, 4th year-31)
Average number of graduates per year	15 (from 2018-2022 academic year)
Target group(s)	Kazakh and international high school graduates
Admission requirements	secondary, technical and vocational, post-secondary education, or higher education
Form of study	Full time
Tuition fee per study year	495,000 tenge

6B07106 Electric Power Engineering (Bachelor)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2004
Faculty/ department	Engineering
Standard period of study (semesters)	8
Number of ECTS credits	240
Number of study places	30
Number of students currently enrolled	195 (1st year-37, 2nd year-58, 3rd year-50, 4th year-50)

Average number of graduates per year	20
Target group(s)	Kazakh and international high school graduates
Admission requirements	secondary, technical and vocational, post-secondary education, or higher education
Form of study	Full-time
Tuition fee per study year	495,000 tenge

6B11201 Life Safety and Environmental Protection (Bachelor)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2002
Faculty/ department	Engineering
Standard period of study (semesters)	8
Number of ECTS credits	240
Number of study places	25
Number of students currently enrolled	56 (1st year-17, 2nd year-14, 3rd year-14, 4th year-9)
Average number of graduates per year	9
Target group(s)	Kazakh and international high school graduates
Admission requirements	secondary, technical and vocational, post-secondary education, or higher education
Form of study	Full-time
Tuition fee per study year	495,000 tenge

6B06103 Computer Technology and Software (Bachelor)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2004

Faculty/ department	Engineering
Standard period of study (semesters)	8
Number of ECTS credits	240
Number of study places	30
Number of students currently enrolled	168 (1st year-80, 2nd year-49, 3rd year-34, 4th year-5)
Average number of graduates per year	11 (from 2016-2023)
Target group(s)	Kazakh and international high school graduates
Admission requirements	secondary, technical and vocational, post-secondary education, or higher education
Form of study	Full-time
Tuition fee per study year	495,000 tenge

6B07307 Cadastre (Bachelor)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2009
Faculty/ department	Engineering
Standard period of study (semesters)	8
Number of ECTS credits	240
Number of study places	25
Number of students currently enrolled	133 (1st year-43, 2nd year-32, 3rd year-25, 4th year-33)
Average number of graduates per year	12
Target group(s)	Kazakh and international high school graduates
Admission requirements	secondary, technical and vocational, post-secondary education, or higher education
Form of study	Full-time
Tuition fee per study year	495,000 tenge

6B07109 Mechanical Engineering (Bachelor)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2004
Faculty/ department	Engineering
Standard period of study (semesters)	8
Number of ECTS credits	240
Number of study places	25
Number of students currently enrolled	54 (1st year-18, 2nd year-10, 3rd year-6, 4th year-20)
Average number of graduates per year	9
Target group(s)	Kazakh and international high school graduates
Admission requirements	secondary, technical and vocational, post-secondary education, or higher education
Form of study	Full-time
Tuition fee per study year	495,000 tenge

7M07109 Mechanical Engineering (Master)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2004
Faculty/ department	Engineering
Standard period of study (semesters)	4
Number of ECTS credits	120
Number of study places	10
Number of students currently enrolled	4 (1st year-3, 2nd year-1)
Average number of graduates per year	2
Target group(s)	Kazakh and international Bachelor graduates

Admission requirements	based on a competitive process involving comprehensive testing (CT) or entrance exams
Form of study	Full-time
Tuition fee per study year	595,000 tenge

6B07210 Oil and Gas Engineering (Bachelor)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2004
Faculty/ department	Engineering
Standard period of study (semesters)	8
Number of ECTS credits	240
Number of study places	40
Number of students currently enrolled	186 (1st year-59, 2nd year-46, 3rd year-46, 4th year-35)
Average number of graduates per year	40
Target group(s)	Kazakh and international high school graduates
Admission requirements	secondary, technical and vocational, post-secondary education, or higher education
Form of study	Full-time
Tuition fee per study year	495,000 tenge

7M07210 Oil and Gas Engineering (Master)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2003
Faculty/ department	Engineering

Standard period of study (semesters)	4
Number of ECTS credits	120
Number of study places	15
Number of students currently enrolled	22 (1st year-15, 2nd year-7)
Average number of graduates per year	15
Target group(s)	Kazakh and international Bachelor graduates
Admission requirements	based on a competitive process involving comprehensive testing (CT) or entrance exams
Form of study	Full-time
Tuition fee per study year	595,000 tenge

8D07208 Geology and Mineral Deposit Exploration (Doctorate)

Location	Caspian University of Technology and Engineering named after Sh. Yessenov, Republic of Kazakhstan, 130003, Aktau, 32 & 24 micro-district
Date of introduction	2017
Faculty/ department	Engineering
Standard period of study (semesters)	6
Number of ECTS credits	180
Number of study places	5
Number of students currently enrolled	7 (1st year-2, 2nd year-1, 3rd year-4)
Average number of graduates per year	3
Target group(s)	Kazakh and international Master graduates
Admission requirements	based on a competitive process involving comprehensive testing (CT) or entrance exams
Form of study	Full-time
Tuition fee per study year	995,000 tenge

III Implementation and assessment of the criteria

1 ESG Standard 1.1: Policy for quality assurance

Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders.

1.1 Implementation

Overall Strategy: Mission, Vision and University goals

The university has presented its internal quality assurance policy as an integral part of the University Strategy elaborated in the Strategic University Development Plan for 2021-2025. The development strategy of the university is formulated in accordance with the State Programme for the Development of Education and Science of the Republic of Kazakhstan for 2020-2025, which considers the integration of education and science, creating conditions for the commercialization of intellectual property products, where education is considered one of the most important factors in the social development of the country.

The involvement of teaching staff, students and staff in the development and implementation of documents, including missions and strategies, is ensured by discussion of the goals of faculties and structural divisions, and the involvement of competent experts from among teaching staff and employees in the development of programme documents. When developing the mission of the university, a mechanism was laid for its formation, revision and monitoring in the context of the implementation of the vision and strategy. This mechanism was based on the principles of team development, collegial approval, analysis of the implementation of strategic plans, revision of the mission and strategy taking into account external and internal changes. The work plans of all collegial bodies of the university are formed taking into account the objectives of the development strategy. In this regard, the results of consideration of planned issues by collegial bodies are part of monitoring the effectiveness of strategy implementation.

Mission: educate, inspire and promote research for sustainable development of the Mangystau region.

Vision: a leading centre of education, science and culture in the Caspian region, with a high reputation and recognition.

University goals:

1. Transformation of the university into a regional scientific and educational hub aimed at solving regional problems.

2. Development of human capital - the formation of an individual with high social and civic responsibility, cultural values.
3. Formation of a centre of academic excellence.
4. Formation of a strong corporate culture within the team.
5. Development of social and campus infrastructure.
6. Improving the university management system through digitalization of business processes.
7. Further increase in the value of the Yessenov University brand.

In order to improve the quality of education, the university has an internal quality assurance system based on international standards and guidelines.

Academic Policy

The educational activities of the university are carried out on the basis of its academic policy, which is a system of measures, rules and procedures for planning and managing educational activities and the effective organization of the educational process, aimed at implementing student learning and improving the quality of education. The academic policy determines the procedure for organizing education at the university using the credit system of education for higher and postgraduate education programmes.

The policy includes the procedure for registering students to attend training sessions; carrying out current, intermediate and final controls; organizing all types of internships for students; assessment of students' educational achievements; the procedure for awarding state scholarships to students; rules for transfer, reinstatement, expulsion of students; final certification, etc.

The academic policy of the university was developed in accordance with the Law of the Republic of Kazakhstan "On Education" regulatory legal acts in the field of education regulating the activities of universities. In order to ensure and maintain internal quality assurance, regulations on structural divisions have been developed, which define its tasks, functions, rights and responsibilities of each division. The highest collegial body of the university - the Academic Council. One of the management methods at the university is the method of involving students in collegial governing bodies that are authorized to make decisions (have the right to vote) in certain areas of the educational institution. For example, faculty and students take part in:

- the Academic Council;
- the Research Council;
- the Public Council;
- the Works Council.

In addition, external stakeholders are involved in the governing bodies of faculties, for example in the Academic Committee at the faculties or the Expert Council at the faculties. The faculties also operate faculty councils, Academic Bureaus and Quality commissions. The quality commissions analyse the implementation of educational programmes and report on this issue to faculty councils. The quality commissions monitor the quality of syllabuses and examination tasks.

The university conducts an annual internal audit to assess compliance with the ISO 9001:2015 Quality Management System according to the approved audit schedule of the university's structural units for the academic year. During the internal audit, the degree of compliance with the requirements applicable to the respective activities is determined. During the academic year 2022-2023, the audit was conducted by trained internal auditors from among the administrative staff and employees. Upon identifying discrepancies, corrective action plans were developed by the structural departments and discrepancies were rectified according to the planned timeline. At the end of the academic year, a "Analysis of the Quality Management System by the Management" is developed, which is presented at the University Senate and approved.

1.2 Assessment

The Caspian University of Technology and Engineering, named after Sh. Yessenov has defined an overall policy for quality assurance, which is also part of the strategy of the university. This document is made public and is available in Kazakh language. An English version of this document is not available up to now. The Strategic University Development Plan for 2021 – 2025 reflects the policy for quality assurance. This is also aligned with the state programme for the Development of Education and Science of the Republic of Kazakhstan. Internal stakeholders like teaching staff, students and staff in the development and implementation are involved in the development of the programmes and the affected documents. This includes the formulation and implementation of the mission, vision, and goals of the Yessenov University. Additionally, the policy is ensured via the organizational structure of the university, systematic monitoring, and evaluation measures of the different programmes as well as the development of the information systems, corporate culture, internal cooperation, and other factors. Therefore, the policy is implemented via appropriate structures and processes. External stakeholders are also included like e.g., the government of Kazakhstan, practical partners from industry as well as the national and international reviewers from accreditation side.

The mission of the university is focused on the sustainable development of the Mangystau region and one of the main goals of the university is to solve regional problems. For the further development of the university a sustainability concept should be developed and implemented in all study programmes.

Given the internationalisation is part of the university's academic policy, the team of experts recommends that internationalisation should be given a greater place in the university's strategic orientation. Strengthening international cooperation will contribute to improving the quality of study programmes. For example, a broader and more valuable range of modules (content, methods) can be achieved through increased student mobility (outgoings) and access to the offerings of partner universities. In addition, the programmes can be further enhanced through the experience of own teaching staff abroad and the involvement of foreign lecturers in teaching. Considering the international discourse, the transfer of internationally proven solutions and the stimulation of new research topics are further advantages that internationalisation can bring.

The university should develop a research strategy and find specific topics or niches whose research results are specifically reflected in the degree programmes. Research should be further promoted, e.g. through more research centres. In addition to the university's transformational goal of becoming a regional science and education hub to solve regional problems, the university should also develop a spirit of innovation independent of the needs of local industry.

1.3 Conclusion

The criterion is **fulfilled**.

Recommendations:

- Central regulatory documents such as quality policy regulations should be available in English on the homepage to support the enhancement of internationalization.
- A sustainability concept should be developed for the further development of the university. This concept should be implemented in all study programmes.
- The university should develop an international profile and a future-proof internationalization strategy and intensify international cooperation in terms of academic student and staff mobility.
- The university should develop a research strategy and find specific topics or niches whose research results are specifically reflected in the degree programmes. Research should be further promoted, e.g. through more research centres. The university should develop a spirit of innovation independent from the needs of the local industry.

2 ESG Standard 1.2: Design and approval of programmes

Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them,

including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

2.1 Implementation

The implementation of scientific research results in production and in the educational process is a priority according to the university. At the university, research work is carried out by all full-time teaching staff, doctoral students, master's students and students in priority areas of the university. There are also certificates for industrial design patents and copyright patents, which are introduced into the educational process, thereby ensuring a connection between science and education.

The learning outcomes of the programmes are focused on labour functions and are characterized by synergies. They take into account participation and interdisciplinarity and are focused on the future needs of the labour market, including soft skills. The learning outcomes are described by the Bloom's taxonomy and developed in accordance with the Dublin descriptors of the European Qualifications Framework for Higher Education and the ECTS guidelines.

According to the university, the successful and competitive development as well as the quality of its degree programmes is underpinned by its highly qualified teaching staff. It is the staff's mission to reconcile the continuity of traditions with introducing new ways of solving educational and research problems at the university.

The revised objectives of undergraduate education aim to cultivate proficient individuals equipped with not only comprehensive knowledge and skills in their respective fields but also: entrepreneurial, research, and digital competencies; innovative and global perspectives, alongside personal, spiritual, and moral attributes; a capacity for ongoing self-improvement and the enhancement of professional expertise.

The updated objectives of master's studies strive to develop highly competitive professionals with advanced expertise, including managerial proficiency, digital literacy, and advanced language skills; proficiency in organizing research endeavours; the capability to integrate research findings into practical applications within the region and the Republic of Kazakhstan.

The content of the bachelor's degree programme consists of disciplines of three cycles - general education, basic and major disciplines and final certification. The cycle of general education disciplines includes disciplines of a compulsory component and an elective component. The cycle of basic disciplines contains the disciplines of the university component, the cycle of major disciplines includes the disciplines of university components and elective components. In the bachelor's degree programme, the cycle of basic disciplines is 56 ECTS-points (51

ECTS-points of compulsory component, 5 ECTS-points of elective component). The cycle of basic disciplines (112 ECTS-points) includes the study of academic disciplines and professional practice, the cycle of major disciplines (60 ECTS-points) includes academic disciplines and types of professional practices, the final certification is no less than 12 ECTS-points. Educational programmes use an interdisciplinary approach: major-minor. When determining an individual educational trajectory within the elective component, the student selects disciplines from the main educational programme or additional EP from the Minor catalogue. The regular study period of the bachelor's degree programme is 4 years and consists of 240 ECTS-points.

The content of the master's degree programme consists of two cycles of disciplines - basic and major disciplines, research work of a graduate student and final certification. Both cycles contain the university component and the elective course. The cycle of basic disciplines (35 ECTS-points) includes the study of academic disciplines and the passage of pedagogical practice, the cycle of core disciplines (49 ECTS-points) includes academic disciplines and research practice. The research work, which includes an internship and the completion of a master's thesis, amounts to 24 ECTS-points. The final certification, including the preparation and defence of a master's thesis, is at least 12 credits. The regular duration of the full-time master's degree programme is 2 years and consists of 240 ECTS points.

The doctoral educational programme comprises theoretical training, doctoral student research work, and final certification. The theoretical training (45 ECTS-points) includes two cycles of disciplines: basic and major. The basic cycle includes courses from the university or elective components and pedagogical practice, while the major cycle includes courses from the university or elective components and research practice. Doctoral student research work (123 ECTS-points) includes an internship and the doctoral dissertation. Final certification, involving the preparation and defence of the doctoral dissertation, is a minimum of 12 credits. The structure of the doctoral programme consists of 180 ECTS-points and has a regular duration of 3 years. Each PhD student has two supervisors, one national and one foreign.

2.2 Study programmes

6B07111 – Transport, Transport Engineering and Technologies (Bachelor)

The bachelor's training in 6B07111 - Transport, transport equipment and technology has been carried out since 2018 at the Department of Mechanical Engineering and Transport. The history of the specialty began in 1991 with the specialty "Automobiles and Automotive Industry", created at the Department of "Automobiles and Engines". In 2004, it was transformed into the specialty "Transport, transport equipment and technology". The research work of the department is carried out in accordance with modern tasks of transport science and in close cooperation with leading transport companies of the Mangistau region.

The objectives of the programme are to train competitive specialists in the transport industry with professional competencies to provide transport services for the global market. Graduates are proficient in the modern organizational and technological methods and logistics techniques.

In addition to the compulsory profiling modules “Transport-technological and diagnostic equipment”, “Enterprise design and vehicle maintenance”, there are two tracks with elective profiling modules for professional specialization in the areas of “Construction of transport equipment and transport logistics” and “Transport installations, transportation process and traffic safety”.

The uniqueness of the study programme lies in the availability of dual training at the transport enterprise on the basis of which classes are conducted by leading employees of the transport enterprise.

6B07106 – Electric Power Engineering (Bachelor)

The department, which trains specialists in the field of power engineering, was founded in the 90s of the twentieth century on the recommendation of MAEC (Mangyshlak Atomic Energy Combine, currently LLP "MAEC-Kazatomprom"). Thus, the department has been training specialists in the field of electrical power engineering for more than 30 years. In the beginning the department graduated students in the specialty "Electrical Systems and Networks". Since the academic year 2004-2005 in connection with the transition of Kazakhstan to credit technology the first cohort of students started in the specialty 5B071800 – Electrical Power Engineering at the bachelor's degree. And from 2019-2020 on, the department called the programme “6B07106 - Electric Power Engineering”.

The purpose of the study programme is to educate competitive electrical engineers capable of being leaders in the electric power industry. Graduates are characterized by professional knowledge, skills, and abilities in the electric power industry. They possess entrepreneurial, managerial, research, digital knowledge, skills, and abilities to think globally.

In addition to the disciplines of the compulsory profiling module “Electricity Supply”, students can select disciplines and specialise in one of two areas “Green/Alternative/Renewable Energy” and “Smart Grid” by choosing profiling electives.

The educational programme is conducted in a dual form of education at the joint-stock company “Karazhanbasmunai”. 30% of the educational material is covered through shift work on the production site. Exams (final grades for the semester) are taken at the production site under the supervision of a commission.

From the university's point of view, the advantages of the programme lie in the availability of dual training in production companies and the existence of a branch of the department in a regional company, where teaching is carried out by leading employees of the company.

6B11201 – Life Safety and Environmental Protection (Bachelor)

The bachelor's training in EP 6B11201 - Life safety and environmental protection has been carried out since 2002 at the Department of Ecology and Geology. The history of the specialty begins with a specialty called labour and life safety, which in 2004 was transformed into the specialty 5B073100 - Life safety and environmental protection. (Since 2019 the code of the programmes has changed to 6B11201).

The undergraduate educational programme aims to provide high-quality training for personnel with practical skills in the field of industrial safety in institutions of the Mangistau region and throughout the country, who are able to make decisions to eliminate and prevent dangerous situations. The purpose of the educational programme is to prepare graduates who are able to realize themselves professionally in the context of increasing requirements for enterprises, to ensure industrial and environmental safety, as well as to navigate the full range of scientific problems in the professional field.

The educational programme is conducted in a dual form of education at the joint-stock company "Karazhanbasmunai", involving the planning and organization of educational activities based on a combination of theoretical learning with practical training in the workplace. 30% of the educational material of the discipline is acquired directly in the workplace.

The disciplines are designed taking into account the learning trajectory of occupational health and safety, protection in emergency situations.

6B06103 – Computer Technology and Software (Bachelor)

For the first time, admission to this direction was started in 2011 in the specialisation 5B0704 - Computer Technology and Software. The current educational programme 6B06103 - "Computer Technology and Software" exists since 2019 and, according to the university, is becoming increasingly popular. The purpose of the educational is to prepare software developers and designers with high-quality knowledge, skills and abilities in software development.

In addition to the disciplines of the compulsory profiling modules "Advanced Programming" and "Computer Network Security", the following elective modules are offered: "IoT and Real Time", "Organisation of Computer Networks", "Frameworks and Security" and "Web Programming".

Graduates are being prepared to work in any field of activity and acquire digital skills, abilities and skills in advanced software development, network technologies, processing and ensuring data security. The uniqueness of the educational programme is justified by the symbiosis of modern teaching methods used (BootCamp, dual training, training on the basis of a branch of the department) with the involvement of practitioners from innovative local enterprises. Disciplines that are trending in the global educational community are studied by students on the Coursera platform.

6B07307 – Cadastre (Bachelor)

The training of Bachelors in the educational programme 6B07307 – Cadastre has been carried out since 2009 on the basis of the Department of Construction Engineering, which has more than 40 years of history. The scientific activities of the department are associated with a comprehensive study of the innovative potential for the development of the construction industry, land relations and cadastre of the Mangystau region. The scientific and intellectual potential of the department allows close cooperations with government agencies and construction organizations.

The purpose of the programme lies in the training of highly educated professional personnel in the field of cadastre and regulation of land relations. The graduates are trained to apply the provisions of legal, economic and administrative regulation of land and property relations for the purpose of rational use and protection of lands and other real estate, conducting quantitative and qualitative accounting based on geographic information system technologies.

In addition to the disciplines of the compulsory profile modules "Land Market and Design" and "Land Planning and Reclamation", students can choose courses from the following elective modules "Automation of Cadastral Works", "Terrain Modelling and Resource Monitoring" and "Land Protection and Spatial Use of Land Resources".

6B07109 – Mechanical Engineering (Bachelor)

The preparation of Bachelor graduates in the educational programme 6B07109 - Mechanical Engineering is carried out at the Department of Mechanical Engineering and Transport. The scientific and intellectual potential of the department allows the close cooperation with organizations and local enterprises in order to implement the state programme of industrial and innovative development. The programme envisages the training of competitive process engineers in the mechanical engineering industry holding high-quality knowledge and skills in their field, mastering modern technologies for design, manufacturing, diagnostics and repair of equipment for construction machines.

The educational programme is conducted in a dual form of education. Theoretical training is provided at the university, while the practical part for students in the 3rd and 4th years is conducted at the premises of the joint-stock company "Karazhanbasmunai" using a shift method. The final semester assessment for the disciplines is conducted at the production site.

The availability of dual education and the presence of a branch of the department in the "Aktau Ma-chine-Building Plant" LLP, on the basis of which classes are conducted by leading employees of the company, are considered to be motivators for studying the programme.

In addition to the disciplines of the compulsory profiling modules "Technological Processes and Service Maintenance" and "Quality Assurance and Documentation", there are two tracks with profiling elective modules for professional specialization "Production Technologies" and "Linear Systems, Design, and CAD Design".

The profiling part of the curriculum includes the university component modules "Technological Processes and Service Maintenance" and "Quality Assurance and Documentation" as well as the elective component modules "Production Technologies" and "Linear Systems, Design, and CAD Engineering".

7M07109 – Mechanical Engineering (Master)

The department has been training master's students since 2004. During their studies, students undergo teaching, research, and production internships, and go on scientific internships to universities in Kazakhstan and abroad. The educational programme is periodically updated, and much attention is paid to the relevance of the disciplines. Programme evaluation and review is carried out with the participation of students, employees, employers and other stakeholders based on the systematic collection, analysis and management of information. As a result, the programme is adapted to ensure its relevance. During the development of the educational programme at the department, much attention is paid to continuously improve the research work of students, their active involvement in research projects implemented by the department staff. According to the university, this allows a productive working environment for scientific exchange around innovative topics and for master's theses.

The study programme introduces digital technologies into the practical activities of mechanical engineering production. It is aimed to train competitive digital production engineers capable of professional problem solving. Graduates are educated in research, management, language knowledge, digital skills and abilities to conduct scientific research in the field of mechanical engineering. Students can benefit from the availability of industry-specific industrial partners equipped with scientific laboratories.

In addition to the disciplines of the compulsory profiling module “Digital Transformation of Machine-Building Enterprises”, the students can choose three elective courses from the module "Modelling of mechanical engineering objects in CAD-systems and innovative methods for complex analysis of mechanical engineering products in SAE systems" and two elective courses from the module "Development of control programs for CNC machines in the CAD-CAM system and digital twin technology in the machine-building enterprise system".

In the master's degree programme education is conducted in three languages. Classes in English cover the disciplines: "Foreign Language," "Project Management," "Innovative Methods of Comprehensive Analysis of Mechanical Engineering Products". Other classes are conducted in Kazakh and Russian languages.

6B07210 – Oil and Gas Engineering (Bachelor)

The bachelor's training has been carried out since 2004 on the basis of the current department of Petrochemical Engineering which has more than 33 years of history. The development of the specialty at the university begins in 1989 with a specialty called “development and operation of oil and gas fields”, which in 2004 was transformed into the specialty “5B070800-Oil and Gas Engineering”. Since 2019 the programme is offered under the current title and code 6B07210.

It is a practice-oriented training of petroleum engineers with professional competencies that meet the requirements of the modern labour market in the field of oil and gas engineering. Defining basic values and forming basic knowledge in the field of natural sciences disciplines that contribute to the formation of a highly educated personality. Graduates should be equipped with a forward thinking, skills in handling modern technology, the ability to use information technology in the field of professional activity and skills of knowledge acquisition.

The university locates the strengths of the programme in the availability of dual training in which classes are conducted by leading employees of the industry-specific enterprises. Furthermore, students can practice on a mini-field of the oil production department, where students undergo introductory and production internships, as well as practical classes.

In addition to the disciplines of the compulsory profiling modules “Enhanced Oil Recovery and Preparation of Well Products” and “Computer Modelling and Digitalization in the Oil and Gas Industry”, the following elective modules are offered: “Fundamentals of Oil and Gas Resources Development”, “Methods of Dealing with Complications and Well Repair” and “Production Management and Process Safety”.

In the educational programme 6B07210 "Oil and Gas Engineering," there are bilingual groups. Classes are conducted with 20% in English, 30% in Kazakh, and 50% in Russian languages.

Disciplines "Information and Communication Technologies", "English for Academic Purposes", "Chemistry", "General Hydraulics", "Physics of Petroleum Reservoirs and Fluids," and "Fundamentals of Production Automation" are taught in English.

7M07210 – Oil and Gas Engineering (Master)

Taking into account the current pace of scientific and technological progress also the local context of the Mangystau region, a master's programme in the specialty "Oil and Gas Engineering" was introduced in 2004. The educational programme provides in-depth specialized professional training. Graduates of the programme are trained to engage in scientific, pedagogical, and managerial activities. The educational programme is aimed at conducting applied scientific research on the problems of the oil and gas industry in the region, assessing the possible use of achievements of scientific and technological progress in oil and gas production. The development and realisation of field and experimental research on innovative technologies can contribute to achieving high technical and economic production indicators.

The objectives of the educational programme are the development of graduates' general cultural competences for action in society as well as the development of professional competences. Graduates are enabled to using the results of training in accordance with the production needs of oil and gas producing enterprises, educational institutions and research institutes of the Caspian region and other regions of the Republic of Kazakhstan. In order to consolidate the knowledge acquired while studying the disciplines of the curriculum, students undergo teaching practice and scientific internships at sector-specific high-tech enterprises.

In the educational programme 7M07210 - Oil and Gas Business, classes are conducted in English for the following disciplines: "Foreign Language" (professional), "Data Analysis and Processing", and "Restriction of Water Inflows to Wells".

8D07208 – Geology and Mineral Deposit Exploration (Doctorate)

The preparation of doctoral students in the educational programme "8D07208 – Geology and exploration of mineral deposits" is carried out on a full-time basis in scientific, pedagogical and specialized areas. The Department of Ecology and Geology was founded in 1996 and has been training doctoral students since 2017. 3 doctoral students have completed the full course of study by now. The scientific and intellectual potential of the department allows the work in close cooperation with government agencies and organizations in order to implement the state social order for organizing and conducting research. The university has opened a dissertation council in the specialty 6D070600-Geology and exploration of mineral deposits, which includes leading scientists from Kazakhstan and neighbouring countries in the field of geology. This

allows doctoral students of this educational programme to defend their dissertation within the walls of their home university.

The goal of the PhD programme is to train highly qualified scientific and teaching personnel with professional and research competencies in the field of geology and mineral exploration. Thereby, the PhD programme takes into account the development prospects of the country and the region. Graduates are enabled to contribute to the progressive scientific, technical, socio-economic and cultural development of the Kazakh society. The area of research for doctoral students is interesting for investment purposes, and therefore provides an opportunity for a research project on a commercial basis. Furthermore, Doctoral students undergo scientific internships at local high-tech enterprises.

There are two tracks for professional specialisation - students can choose electives in two areas: hydrodynamic and geodynamic processes in the lithosphere.

2.3 Assessment

Assessment for all study programmes

In designing its programmes, the university must comply with the requirements of the Kazakh Ministry of Education. For example, all bachelor's and master's degree programmes include state compulsory modules. In the expert's point of view, it would be desirable if there was more academic freedom in the design of study programmes, independent of the Kazakh Ministry of Education, in order to achieve more individualised study programme curricula.

Recommendation:

- There should be more academic freedom in the design of study programmes, independent of the Kazakh Ministry of Education, in order to achieve more individualised study programme curricula.

Assessment for study-specific programmes:

6B07111 – Transport, Transport Engineering and Technologies (Bachelor)

The educational programme “Transport, Transport Engineering and Technologies” (Bachelor) plays a key role in fulfilling the mission and strategy set by the management of the Yessenov University, providing quality education, developing scientific research and training sought-after specialists. The main objectives and learning outcomes of the educational programme are acquisition of fundamental knowledge, readiness for professional activity, ethical and social competences, compliance with the requirements of the professional sphere and levels of education.

The University integrates modern technology and innovative teaching methods into its programmes to give students access to advanced knowledge and tools. The educational programme "Transport, transport engineering and technology" is designed taking into account the requirements of the professional sphere, provides comprehensive development of students and their readiness for professional activity.

The Caspian University of Technology and Engineering, named after Sh. Yessenov, has agreements for industrial practice and cooperates with transport companies in the region and in the near abroad (Georgia), providing students with internships and practice, which facilitates employment after graduation. Graduates of the educational programme expect a wide range of career opportunities in various industries related to transport and logistics. Students have internships at local oil refineries, at the national company "Kazakhstan Temir Zholy" as well as at companies involved in maritime transport services due to the region's location on the shores of the Caspian Sea.

The workload, content and organisational structure of the modules of the bachelor's programme in Transport, Transport Engineering and Technologies are transparent and comprehensible. The curriculum includes courses covering all the main aspects of professional education and provides the basis for the systematic and coherent achievement of educational objectives, ensuring the comprehensive development of students and their preparation for professional activity.

As far as the actuality regarding modern technologies is concerned, the experts saw room for improvement, especially concerning the latest trends in the transport sector. For instance, there is no modern visual manuals under the authorship of scientists of this university. The car parts used in the laboratories to study the general structure of a car and to develop skills in vehicle diagnosis and repair are relatively old and should be replaced with more modern ones. Renewing the equipment would make graduates more competitive on the large labour market.

The expert group recommends the introduction of new disciplines related to artificial intelligence in transport and a course dedicated to the electric transport maintenance and service. In the future, the 'Transport, Transport Engineering and Technology' education programme may include courses in the humanities and social sciences, which would contribute to the overall development of the personality and the development of soft skills.

Recommendations:

- The university should modernise the equipment used for laboratory studies.
- The university should introduce more modern subjects related to artificial intelligence in transport and maintenance and service of electric transport.

6B07106 – Electric Power Engineering (Bachelor)

The bachelor's degree programme 6B07106 on Electric Power Industry is a full-time 4-year programme with 240 ECTS-points credited. The course is designed for 30 students per take-in with an average of 20 graduates per year. The study programme content is oriented towards the needs of the local and regional industry. Thus, it contains only few fundamentals and basic modules and a lot of specialized content. In general, the experts found the training asset-based, which means that students learn how specific devices work and how they are modelled. Modules, offering a more systemic point of view are underrepresented in the experts' point of view.

Most modules are weighted with 5 ECTS-points. For students planning to do a consecutive Master, a single math module weighted with 5 ECTS-points might not be sufficient. The experts consider it sensible to offer at least one additional math course either as an elective module or as a minor.

The theoretical education is supplemented with labs on machines, electric measurement and a specialized lab on renewable energy. Industry integration is granted e.g. by internships, whereof 30% of the time has to be done in shift work.

Besides technical modules, the course also offers modules e.g. in economy and law, which both is extremely important for power system engineers, and other non-technical modules which are required by Kazakh educational law.

Some module names are very similar e.g. "3.2.1 – Renewable energy sources" and "3.2.4 – Renewable energy Power Plants" and offer content which seems to overlap. Redundancies should be avoided, and modules should be named distinctively.

Some of the non-technical courses required by law – especially "Sacral Mangystau" – are very unpopular by students because their content is considered as a repetition from school. The experts therefore suggest to offer more attractive alternatives to the students for some of the non-technical courses if possible.

The teaching load is covered by assistant and associate professors who are very skilled and motivated. They offer a good mixture of young and experienced teachers. Also, experts from industry are integrated into teaching and cover some specialized modules.

Recommendations:

- An additional math course should be offered either as an elective module or as a minor.

- The modules should be revised to ensure that there is no redundancy in content and that they are distinctively named according to the content being taught.

6B11201 – Life Safety and Environmental Protection (Bachelor)

The content of the bachelor's degree programme 6B11201-Life safety and environmental protection fully complies with the normative rules of the state obligatory standard of higher and postgraduate education of Ministry of Science and Higher Education of the Republic of Kazakhstan (MS&HE RK), approved by the order of MS&HE RK from July 20, 2022 No. 2, registered in the Ministry of Justice of the Republic of Kazakhstan on July 27, 2022, No. 28916, as well as with the development strategy of the university.

The disciplines are designed taking into account the learning trajectory of occupational health and safety, emergency protection and environmental protection. Major courses in all trajectories provide students with a practical orientation to the employment process.

In the further development of the study programme, the university should consider the introduction of an additional trajectory in the field of occupational health and safety in accordance with the group of the educational programme GOP B094 - "Sanitary and preventive measures" and the direction "Hygiene and occupational safety at work" of the classifier of the direction of MS&HE RK.

The experts encourage that students of the educational programme "Life safety and environmental protection" could pass practical units in the Department on Emergency Situations of Aktau city and also in industrial companies of the given region.

Overall, the experts found that the main directions of the questions of the Atlas of new professions are taken into account. Further, it can be noted that this programme has dual training together with JSC "Karazhambasmunai" and therefore provides good opportunities for students to get practical skills in their field.

Recommendation:

- The introduction of an additional course in the field of occupational health and safety in accordance with the group of the educational programme GOP B094 - "Sanitary and preventive measures" and the direction "Hygiene and occupational safety at work" of the classifier of the direction MS&HE RK should be considered.

6B06103 – Computer Technology and Software (Bachelor)

The bachelor's degree programme 6B06103 - Computer Technology and Software mainly covers topics that are classically found in a bachelor's degree programme in Computer Science

or Computer Engineering. Taking into account the ACM Computer Science 2023 curriculum, the following topics should be added to the curriculum for the further development of the degree programme: Theoretical foundations of computer science such as algorithms, complexity theory, artificial intelligence, human-computer interfaces, graphics and computer vision. A new course is currently being planned for artificial intelligence, which is due to be introduced shortly. This is very welcome. International standards should therefore always be considered when revising and developing the curriculum.

The curriculum is strongly focused on the practical needs and training of students for the job market. It therefore includes several courses and materials provided by major industry players such as Cisco, Huawei and Samsung. There are also several labs that train students on new topics, such as IoT, and encourage them to develop skills in new technologies. Some courses are very specific to certain technologies such as .NET, Django, etc.

The literature for students is mainly in Kazakh or Russian. In some cases, this leads to the literature being outdated as it is not updated frequently. Therefore, more standard textbooks, which are often only available in English or Russian, should be used as literature and learning material in the future. In this case, certain courses could be held in English so that the terminology does not have to be translated.

Most of the courses are up to date and several emerging concepts and technologies are covered in the curriculum. Good examples are IoT and certain security related courses. However, there are some courses that cover outdated topics, e.g. Token Ring, FDDI, outdated Windows versions etc. In order to avoid significant efforts to keep courses up to date, it is recommended to focus more on concepts with a longer lifetime than on frequently changing specific technologies.

It seems that there is a significant difference in the number of beginners and graduates of the programme. The situation of high dropout rates should be continuously monitored. Appropriate measures should be taken into account.

Recommendations:

- The curriculum should regularly be revisited and compared against international standards such as the ACM CS curriculum.
- Literature and learning material should be more based on standard textbooks in English or Russian.
- The content of courses should have a focus on concepts that have a longer life span than frequently changing specific technologies.

- The situation of high dropout rates should be the subject of continuous monitoring and appropriate measures should be taken.

6B07307 – Cadastre (Bachelor)

The educational programme 6B07307 – Cadastre (Bachelor) has clearly formulated goals and objectives that correspond to the mission, goals and objectives of the university and is aimed at the development of the Mangistau region, corresponds to the available resources, reflects the specifics of training specialists in this profile, takes into account the possibilities of international student exchange developed according to the scheme and corresponds to the current state of science. The results of mastering the educational programme correspond to the programme goals stated by the university. Regular benchmarking of the educational programmes of leading national and international universities could help to review the relevance of the learning outcomes of the educational programme and revise the curriculum to include or exclude disciplines as appropriate.

The structure of the educational programme is based on a modular principle and contains learning outcomes based on competencies (general cultural and professional meta-competencies) based on the Dublin descriptors, the National and European Qualifications Frameworks.

The advantages of the educational programme Cadastre include the presence of disciplines such as Economic and mathematical methods in land management and cadastre, AutoCAD, Land and real estate market, GIS and digital mapping, as well as the study and mastery of various computer programmes. Despite the strengths, there are areas that could be improved for the future development for the future: The expert group recommends revising the courses in the educational programme modules in order to combine some disciplines, and also include the disciplines necessary for a cadastral specialist, such as Engineering Territory Development, Landscape Design, Interfarm Land Management. Some major subjects, such as “GIS technologies in cadastre,” are recommended to be assigned to the graduating department of the educational programme. The entire educational programme could benefit, if it is possible to find more attractive alternatives to the non-technical courses required by law – especially “Sacral Mangystau”.

It should also be noted that the department has a close relationship with employers. For more fruitful work and increased efficiency of the educational programme, it is recommended to implement a dual training and to open a branch of the department in production to conduct practical training for employers.

Recommendations:

- The curriculum and learning outcomes should be regularly reviewed and benchmarked against those of leading national and international universities.
- Disciplines such as Engineering Territory Development, Landscape Design and Inter-farm Land Management should be included in the curriculum.
- Major subjects, such as “GIS technologies in cadastre”, are recommended to be assigned to the graduating department of the educational programme.
- To deepen the practical orientation of the educational programme, the university should introduce dual training and open branches of departments in production.

6B07109 – Mechanical Engineering (Bachelor)

The 6B07109 – bachelor's programme in Mechanical Engineering is a study programme with 240 ECTS-points. In the first 3 semesters there is a larger proportion of non-subject-specific modules such as Kazakh or Russian language and Physical Training as well as a state-prescribed range of courses from which students can choose. The total scope of these disciplines is 20 ECTS-points in the first semester, 17 ECTS-points in the second semester and 12 ECTS-points in the third semester. (An additional 2 ECTS-points are added in the fourth semester.) The remaining semesters are characterized by disciplines that are usual for mechanical engineering courses. There is a strong emphasis on practice in the implementation of the individual disciplines and, according to the module descriptions, an inverted classroom concept with a lot of project-based learning, much of which takes place in cooperating companies and laboratories. The workload of 150 hours for a 5 ECTS-points discipline is divided into 50% self-study and 50% contact time. The contact time is divided into 15 hours of lectures or seminar lessons, 30 hours of practical work (partly divided into 15 hours of practical lessons/exercises and 15 hours of laboratory lessons) and 30 hours of independent work under the guidance of a teacher. According to the teachers, achieving the guided independent preparation of the students is a challenge, especially in the first semesters. In principle, this concept is very positive, as it breaks up traditional teaching methods and accommodates students with alternative learning opportunities. The future topic of sustainability is dealt with very generally in the Global Ecology discipline. A stronger integration of the future topic of sustainability into the individual modules is recommended. because this topic must be included holistically in the studies in order to ensure the necessary transformation of the processes. Close cooperation with the newly established German-Kazakh Institute for Sustainable Engineering is recommended here.

The future topic of digitalisation is also addressed in the course of study. In the seventh semester, there is a 10 ECTS-points digitalisation module divided into “3D modelling” and “Computer-aided design systems”, which deals with CAD and various CAD software tools. On the other hand, there is a 15 ECTS-points module Linear Systems, Design, and CAD Engineering, divided into “Computer aided CAD design” (semester 5), digital design (semester 6) and “Linear Automatic Control Systems” (semester 7), so that CAD is covered in earlier semesters.

However, digitalisation should be viewed holistically today, as digitalisation is finding its way into all areas. It is therefore advisable to take a broader view of digitalisation and to include modules such as machine vision, simulation and robotics instead of focusing on CAD in quite a few disciplines. The establishment of a Smart Factory is also a suitable option here, particularly due to the strong focus of the study programmes on practical relevance. Furthermore, the experts suggest reflecting on the large number of different CAD software tools used in the programme instead of just using and mastering one or two tools more intensively. In the expert’s point of view, it is easier to transfer from one system to another later on than gaining a basic understanding of many of such systems. The goal of being able to select the right CAD system does not appear to be achievable with the present approach. Another point to think about is the fact that Entrepreneurship is already taught in the fourth semester. It is advisable to consider whether students in their fourth semester are already sufficiently prepared for thinking about setting up a start-up.

Many different teaching methods are listed for the individual subjects. This variety of modern teaching methods is desirable because it contributes to a varied design of the different teaching units. However, these different methods should also be used more continuously in the various subjects. Therefore, and also against the background of a constructive orientation, it is advisable to adapt the teaching methods to the requirements of the examinations. Against this backdrop, it seems sensible to focus on specific teaching methods that are actually practiced and to make these even more transparent in the module handbooks, as well as the specific examination methods.

In addition, it is advised that measures be taken to motivate students to prepare for the courses and to work through the course materials in order to be even better prepared for the examinations and to counteract a decline in subject-specific skills and the drop-out rate. Bonus systems, for example, could offer an incentive for this.

Recommendations:

- Modules such as Machine Vision, Simulation and Robotics should be included in the curriculum.

- A stronger integration of the future topic of sustainability into the individual modules is recommended, as is close cooperation with the newly established German-Kazakh Institute for Sustainable Engineering.
- Teaching methods should be adapted to the requirements of the examinations and should be made transparent in the module handbooks, as should the specific assessment methods.

7M07109 – Mechanical Engineering (Master)

The degree programme 7M07109 - master's degree programme in Mechanical Engineering is a degree programme with 120 ECTS credits. In the first and second semesters, 8 ECTS points each are allocated to subjects from the state compulsory module, divided into the subjects "History and Philosophy of Science", "Foreign Language (vocational)", "University Pedagogy", "Psychology of Administration". (However, the module handbook lists 20 ECTS points for this module.) The proportion of other modules dealing with CAD is relatively high. Students have many options to choose from. Parallel disciplines often have the same content but different focuses. This makes sense, as it gives students a basic knowledge on the one hand, but also allows them to set their own priorities on the other. However, there are also modules/disciplines that are not parallel and have very similar or the same learning outcomes. The focus of the training programme is on practical work. The modules have a maximum of 15 hours of lecture time, with the exception of the 6 ECTS credit point disciplines in the third semester, which have 30 hours of lecture time. The remaining contact time is divided between practical hours and independent work under the guidance of a lecturer. (The module handbook specifies 10 instead of 12 ECTS credits for the corresponding module).

The expert group recommends that the names and content of the modules and disciplines be reviewed. The reason for this is that some of the disciplines have the same learning outcomes, although they cannot be chosen in parallel. In addition, ECTS credits and module names do not consistently match the information in the curriculum or in the module handbook itself. The specification of pre- and post-requisites should be clearer and be more consistent. The distinction to the corresponding (also relatively many) subjects from the bachelor's degree programme and the further acquisition of skills should also be worked out in order to be able to offer a convincing consecutive master's degree programme. Instead of the many CAD-related subjects, for example, modules in the areas of simulation (applied flow simulation, multi-body simulation), robotics and industrial laser applications could be introduced.

In terms of content, a stronger integration of the future topic of sustainability into the individual modules is recommended, as this topic should be incorporated even more strongly into the

course in order to ensure the necessary transformation of processes in the future. A close cooperation with the newly founded German-Kazakh Institute for Sustainable Engineering is recommended here.

As with the bachelor's degree programme, the expert group recommends aligning the teaching methods with the examination requirements and making these and the assessment methods transparent in the module handbook.

In purely formal terms, the different module categories in the overview of the curricula of the bachelor's and master's degree programmes are not uniformly coloured. Aligning them would facilitate and improve readability.

A very high proportion of teachers are women. It is advisable to work towards gender parity here. In addition, efforts should be made to recruit more highly qualified staff with a doctorate in particular (see chapter 5.2), as this group of people is involved in current developments through their own research and can incorporate these into teaching. Appointments according to certain subject combinations would also promote a more diverse range of subjects and modules (beyond CAD) and thus the attractiveness of the degree programme.

Recommendations:

- The module catalogue should be revised to ensure that there is no redundancy in content and the information on ECTS-points and module names should be aligned with those in the curriculum.
- The differentiation from the corresponding disciplines from the bachelor's programme and the further acquisition of competences should be made clearer in the module catalogue.
- A stronger integration of the future topic of sustainability into the individual modules is recommended, as is close cooperation with the newly established German-Kazakh Institute for Sustainable Engineering.
- Teaching methods should be adapted to the requirements of the examinations and should be made transparent in the module handbooks, as should the specific assessment methods.

6B07210 – Oil and Gas Engineering (Bachelor)

The four-year bachelor's degree programme in 6B07210 – Oil and Gas Engineering includes all the courses necessary for students to achieve a high and broad professional level in petroleum engineering. Further on, courses on soft skills like emotional intelligence and service

learning belong to the compulsory topics. The contents of the oil and gas related courses are comprehensive and include all up-to-date topics on a global level. While some business topics are included in the Bachelor's programme, the aim is clearly to educate a skilled workforce on the operational side.

The study programme is carried out in collaboration with the local branch of the governmental oil and gas research institute, KMG. Practical work like theses and internships is performed in their laboratories (experimental) or offices (simulations, process control). The laboratory is fully equipped with all necessary devices for petrophysical analysis, cement testing, physico-chemical properties, etc. Especially the equipment for special core analysis shall be pointed out as exemplary.

The theoretical classes are given by a team of highly dedicated teachers, who are also motivated to explore new topics, particularly in relation to the energy transition. The lectures visited by the expert during the onsite visit were hands-on with practical demonstrations on models of artificial lift systems, ESPs, sucker rod pumps, etc. 5 of a total of 20 oil related lectures are taught in English, although the professors are not obliged to do so. On her own initiative, one of the professors undertook a research stay at a renewable energy research centre in Germany. Another professor recently carried out a project with students on sector coupling. Well-written reports on both works were submitted to the expert group.

For the future development of the study programme the expert group emphasizes to continue with activities focused on topics of the energy transition. Collaborations with foreign partners that may contribute to opening up new ideas and topics could be expanded. Hydrogen as an energy carrier, especially its handling and storage, sector coupling and the application of AI in the oil field should find their way into curricula.

Recommendations

- The university should continue with activities focused on energy transition.
- Collaborations with foreign partners/ universities should be expanded.
- The application of AI in the oil field, e.g. for preventive maintenance, should be included in the curriculum.

7M07210 – Oil and Gas Engineering (Master)

The 7M07210 – two-year master's degree programme in Oil and Gas Engineering includes all the courses necessary for students to achieve a high and broad professional level in petroleum engineering. The contents of the oil and gas related courses are comprehensive and include

all up-to-date topics on a global level. The master's programme has a strong focus on the business aspects of oil and gas industry. It is designed to prepare students for management positions.

The study programme is run in collaboration with the local branch of the state oil and gas research institute, KMG. Practical work such as theses and internships are carried out in their laboratories (experimental) or offices (simulations, process control). The laboratory is fully equipped with all the necessary equipment for petrophysical analysis, cement testing, physico-chemical properties, etc. Special mention should be made of the excellent equipment for special core analysis.

The theoretical classes are given by a mixed team of highly dedicated teachers, who are also motivated to explore new topics, particularly in relation to the energy transition. The expert group recommends continuing activities focused on energy transition issues for the master's programme. Collaboration with foreign partners can help open up new ideas and themes. The handling and storage of hydrogen as an energy carrier, sector coupling and smart energy management systems should eventually find their way into the curriculum.

Recommendations

- Collaborations with foreign partners/ universities should be expanded.
- Topics such as hydrogen as an energy carrier, especially its handling and storage, sector coupling and smart energy management systems should be included in the curriculum.

8D07208 – Geology and Mineral Deposit Exploration (Doctorate)

The Educational programme 8D07208 – Geology and exploration of mineral deposits is focused on training doctoral students in the field of geological industrial exploration. Graduates are prepared to work in various areas of geological industrial exploration of the Republic of Kazakhstan. Doctoral educational programme is a full-time 3-year course on Geology and exploration of mineral deposits. The content of the modules and courses of the educational programme is structured according to the ECTS. The PhD degree requires at least 180 academic credits obtained by a student. Language of instruction are Kazakh and Russian

The PhD educational programme contains theoretical courses, including the study of a set of basic and specialized disciplines; professional work experience; research (experimental research) work, including a doctoral dissertation; intermediate and final certification.

In terms of content, the expert group recommends that some of the following subjects be added to the PhD programme, such as petrochemistry, geology and mineralogy of rare metal deposits.

Educational and methodological support is 95%. The quality of preparation of working curricula, methodological developments and recommendations on the types of educational activities of doctoral students meet the requirements of the current State Educational Standards. Methodological guidelines for laboratory and practical classes have been developed.

In the training of doctoral students, the department uses both traditional teaching methods and interactive ones, which stimulate students to play an active role in the educational process. Lectures and practical classes are held in the form of press conferences, lecture-discussion, lecture-conversation, the form of solving practical and scientific-production problems.

Practical research work is carried out at the Joint Stock Company “Karazhambasmunai”, KMG engineering, a branch of the Oil and Gas Research Institute. All types of geological studies have been developed in the laboratory of the Institute: petrophysical, lithological, etc. Here, doctoral students conduct macroscopic and microscopic studies of lithological rock samples, examining them under the electron microscope. The core storage is in the laboratory of the Institute, which has all the necessary laboratory equipment. This provides great opportunities for scientific work. However, the mineral and rock samples are not classified by origin and are not labelled. The expert group therefore recommends that minerals and rocks be classified and organised accordingly. For example, a separate list of minerals and rocks could be prepared for each teaching class, cabinets and drawers could be arranged for them and, where possible, mineral and rock collections could be replenished. When compiling the lists, the university could work together with mineralogists from other universities or organisations.

Most of the Doctoral training programme is based on independent research work related to the topic of the future dissertation under the guidance of two consultants, domestic and foreign. Secondary supervisors of PhD students are currently from Ukraine and Azerbaijan. The expert group recommends that cooperation with universities in Europe, East Asia and the USA should be expanded.

The expert group took the Salzburg recommendations and the research impetus into consideration when evaluating the degree programme and came to the conclusion that the Salzburg recommendations are fulfilled.

Recommendations:

- Subjects such as petrochemistry, geology and mineralogy of rare metal deposits should be included in the curriculum.

- Mineral and rock samples used for micro- and macroscopic studies should be classified and organised accordingly.
- Cooperations with universities in Europe, East Asia and the USA should be expanded.

2.4 Conclusion

The criterion is **fulfilled**.

3 ESG Standard 1.3: Student-centred learning, teaching, and assessment

Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach

3.1 Implementation

The bachelor's programmes aim to equip graduates with foundational research skills, while master's programmes focus on developing the ability to effectively conduct and organize research, particularly for the advancement of the Mangystau region. Training and examination requirements vary based on the level of education. For instance, assessment methods for bachelor's students include testing for current and midterm evaluations, while master's students undergo written control questions. Master's students are often assessed through tasks such as writing a scientific article, preparing reports, and completing projects for current evaluations. Intermediate certification for bachelor's students typically involves tests, written exams, and essays, while for master's students, it includes written exams in ticket form, essays, or projects.

During their programme, students undergo continuous personal development. Initially, they acquire personal skills and qualities such as self-learning, systems thinking, transdisciplinarity, and cross-functionality, as well as proficiency in information and communication technologies and languages. They also develop technological literacy, creativity, entrepreneurship, social intelligence, teamwork, customer focus, and the ability to work effectively in environments of high uncertainty and rapid change, including quick decision-making, adapting to changing conditions, and managing resources and time effectively (soft skills). As they progress, they acquire professional skills through core disciplines, enabling them to act and make decisions confidently in uncertain conditions (hard skills).

In response to these needs, the educational programmes have been updated to include the courses "Global Ecology" in all undergraduate programmes to cultivate students' global environmental awareness and "Entrepreneurship" aimed at developing practical skills in carrying out entrepreneurial activities.

The “Service Learning” discipline is based on the educational concept “Serving the Society” and is included in the cycle of basic disciplines of the university educational programmes as a mandatory discipline for all specialties of the university. The training includes the three main stages theoretical training (7 weeks); project activity (8 weeks) and reflection. Partnership agreements have been signed with key social protection institutions and non-governmental organizations.

In addition, the new elective subject “Sacral Mangystau” has been introduced to all undergraduate programmes in the cycle, providing an understanding of historical and cultural processes of the Kazakh society. The course "Media Literacy" is included as an elective in the general education disciplines cycle.

The university has established the following main types of educational work: lectures, practical seminars, laboratory, independent work of the student, independent work of the student under the guidance of a teacher, coursework, different types of professional practice, preparation and passing of the final certification. Training sessions are divided into classroom and extracurricular ones.

Teaching formats:

- 1) Lecture classes involve a systematic study of educational material (such as an issue or scientific problem) according to a calendar and thematic plan, primarily conducted in groups. Interactive lectures are conducted using digital platforms like Jamboard, Flipgrid, Padlet, Prezi, and Miro.
- 2) Practical seminar classes serve as a theoretical form of learning where students deepen and reinforce knowledge acquired from lectures and independent study. Seminar formats include detailed discussions according to a plan, question-and-answer sessions, oral presentations, student reports followed by discussions, seminar debates, seminar discussions, and various methods such as design thinking, project-based learning (PBL), research methods, case studies, demonstrations, game-based learning, simulations, etc.
- 3) Laboratory classes involve both practical and theoretical study of lecture material using laboratory equipment. These classes enhance critical thinking, bridge the gap between theory and practice, and reinforce understanding. Laboratory classes also help develop practical skills.

The format students independent work (SIW) entails working on specific topics allocated for independent study, supported by educational and methodological literature and recommendations. The assessment of SIW is conducted through tests, examinations, colloquiums, abstracts, essays, and reports.

The university has developed an approach to flipped learning, using the Canvas educational portal. In this method, students first independently study topics by engaging with audio and

video lessons provided by the instructor on the portal. They then take tests based on these materials and during lectures and practical classes, students discuss the knowledge they have gained.

Assessment instructions have been developed, which are distributed to the teaching staff in advance and are made available to the public. The guidelines outline the fundamental principles for developing examination tests, question cards, and assignments. Additionally, the Centre for the Development of Educational Resources regularly hosts seminars on Canvas, the educational portal, to enhance teachers' qualifications in assessment methods and rules. Assessment aligns with the guidelines and ensures consistency and objectivity for all students. Final assessments occur during the intermediate certification period and may include presentations, tests, reports, synopses, abstracts, scientific articles essays, seminars, projects, case studies, colloquiums, and other methods for assessing current progress.

Syllabi are published on the educational portal before classes begin. Since learning outcomes are linked to teaching and assessment methods detailed in the syllabus, the assessment reflects the student's attainment of the intended learning outcomes. Students receive feedback during SRSP classes, where they are advised on the learning process, including clarification of misunderstood topics from lectures and practical classes, assistance with SRS assignments, coursework, and graphical work. Students are introduced to the learning outcomes, teaching and assessment methods, and assessment criteria for all courses in the semester in advance. The assessment criteria are clearly articulated to avoid any ambiguity in interpretation.

Particular attention at the university is paid to the implementation of scientific research results in production and in the educational process such as patents or monographs published as a result of the research work of teachers. At the university, research work is carried out by all full-time teaching staff, doctoral students, master's students and students in priority areas of the university.

At the university, in order to support young scientists and students, there is a Council of Young Scientists and student scientific communities (clubs).

3.2 Assessment

The University allows students to design an individual learning path by choosing electives, majors and minors and offers academic freedom in the choice of dissertation topics. Each student receives an individualized study plan for each academic year. This flexibility helps students to take an active role in shaping their learning process.

Great emphasis is placed on student-centred learning, which is viewed positively by the experts. What struck the experts was the friendly and inspiring atmosphere during the site visit. Places to sit in groups or alone, pictures and writings on the walls and a library designed as a

"learning space" probably contribute to a creative way of thinking. The service learning course in particular is an excellent opportunity for young people to connect with society and take responsibility for their surroundings. Instead of "student-centred," this should be positively referred to as "environment-centred" learning.

In addition, the high motivation and constant commitment of the teaching staff should be emphasized, which makes a fully functioning student-centred focus possible in the first place.

Students at the university have the opportunity to complain or make suggestions for improvement regarding teaching methods and the quality of educational programmes. The feedback loop ensures that the university is responsive to the needs and concerns of its students.

3.3 Conclusion

The criterion is **fulfilled**.

4 ESG Standard 1.4: Student admission, progression, recognition, and certification

Institutions should consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression, recognition and certification.

4.1 Implementation

The University accepts applicants with various educational backgrounds, including general secondary, technical and vocational, post-secondary, and higher education. To compete for an educational grant for higher education from the republican or local budget, or to enrol in paid education, individuals with secondary, technical and vocational, or post-secondary education are eligible. However, this does not apply to those entering related fields of higher education that offer shortened training periods for applicants who have taken the Unified National Test (UNT) administered by the Ministry of Science and Education. The minimum passing score for admission to the university is 50, while for the field of "Pedagogical Sciences" it is at least 75 points.

Applicants who hold certificates from international standardized tests such as the SAT, ACT, or IB are eligible to compete for an educational grant or enrolment in paid programmes at universities. Their scores are converted into UNT points based on the relevant scale, provided that the subjects of the standardized tests match the profile subjects of the UNT. Testing includes three compulsory subjects (History of Kazakhstan, Mathematical literacy and Reading literacy) and two specialized ones, depending on the chosen specialty.

Admission to master's and doctoral programmes, including targeted training at universities and scientific organizations, is based on a competitive process involving comprehensive testing

(CT) or entrance exams. Foreign students seeking admission to master's and doctoral programmes generally must pay for the programmes. However, free postgraduate education may be available to foreigners through competitive selection in accordance with the state educational order, as determined by international treaties of the Republic of Kazakhstan. This excludes the scholarship programme for master's programmes. Individuals who have completed compulsory military service may be admitted to a specialized master's programme on a paid basis without entrance exams. This admission is based on an interview conducted by university admissions committees during the calendar year. Applications for Doctoral studies at the university are accepted either by the university admissions committees or through the NCT information system, according to specified deadlines.

Applicants for doctoral studies must have an official certificate of passing the State Language Examination (KAZTEST) issued by the NTC and a certificate of foreign language proficiency with a defined minimum score. The IELTS Academic and TOEFL tests are accepted for English language proficiency, the DSH test for German language proficiency and the DELF, DALF and TCF tests for French language proficiency. Additional testing for knowledge of the English language is carried out by the National testing Centre (NTC) in organizations specified by the authorized body in the field of education.

The entrance examination for admission to doctoral programme in a computerized format consists of the following stages and takes a total of 4 hours 20 minutes:

- 1) an interview with the applicant conducted by the examination committee of the university;
- 2) writing an essay;
- 3) a test to determine readiness for doctoral programme (hereinafter referred to as TGO);
- 4) answers to examination questions related to the profile of the educational programme group.

The university has a Military Department where reserve officers with extensive experience work. Admission to the Military Department at the university can serve as an alternative to completing mandatory military service in the Armed Forces of the Republic of Kazakhstan. It is possible to join the Military Department after completing the first and second years of study.

Intermediate and final assessment of knowledge

At the completion of each academic discipline studied in one academic period, a final assessment (intermediate certification) is conducted in a form approved by the decision of the Academic Council, excluding all types of professional internships, coursework (projects). The implementation of ongoing and final knowledge assessments follows an approved schedule for interim and final control in accordance with the modular curriculum, academic calendar, and educational programme. Intermediate certification evaluates the student's performance over the semester, the level of assimilation of theoretical knowledge, skills in independent work, the ability to synthesize acquired knowledge, and apply them to solving practical, professional tasks.

A student is eligible for the final certification if they have no academic debts and have fully completed the educational plan for the chosen educational programme. Assessment of students' academic achievements (ASA) is conducted in accordance with the Rules for conducting current control of progress, intermediate, and final certification of students. ASA (knowledge, skills, abilities, and competencies) in all types of control – current progress control, intermediate, and final certification - are evaluated on a 100-point scale, corresponding to the internationally accepted letter grading system (positive grades, decreasing from "A" to "D," "unsatisfactory" - "F") with the corresponding numerical equivalent on a 4-point scale, as per the above-mentioned rules

Exam administration for the final control and final certification is carried out in offline mode with video surveillance and recording. A commission for intermediate certification is established by the order of the rector. Based on the results of intermediate certification, the Registrar's Office compiles an academic ranking of students.

The organization of monitoring students' academic achievements is carried out by the Registrar's Office, which is subordinate to the Vice President for Academic Affairs of the university. To address students' complaints regarding the assessment of their knowledge during the examination sessions of final certification, an appeal commission (composed of qualified teachers whose expertise aligns with the disciplines subject to appeal) is established by the order of the president-rector, based on the recommendation of the deans of the faculty (school, academy). Appeals are submitted in the form of a written statement addressed to the chairperson of the appeal commission by students who disagree with the results of intermediate or final certification. The appeals procedure is made transparently. On the day of receiving the appeal, the commission reviews them, forwards them to the relevant authorities, prepares a report citing the reasons for each appeal, and makes decisions on each matter on the day following the examination. At the end of the session or final certification, a report is compiled on the work done by the appeal commission, and decisions are finalized.

For monitoring the academic performance of students, electronic grade sheets have been developed. Following each examination session, the Registrar's Office conducts an analysis of academic performance, which is presented at the University Academic Council, and an academic ranking of students is compiled.

The dropout of students is primarily recorded for absences from classes and for violations of academic integrity norms. Additionally, expulsion occurs in the following cases:

- In the event of loss of contact with the university.
- If the conditions of the contract for educational services are not met.
- At the student's own request or due to transfer to another educational institution.
- For violation of the Rules of internal order and residence in the dormitory.

Students who have successfully completed the final certification and confirmed the mastery of the respective educational programme are awarded an academic degree and receive diplomas with attachments in three languages. Additionally, upon the graduates' request, a Diploma Supplement is issued, reflecting the obtained qualification, achieved learning outcomes, as well as the context, level, content, and status of the education received. Diplomas for higher and postgraduate education are issued in accordance with the Rules for the organization of issuing documents of a unique design and the Regulations on issuing a European diploma supplement.

Diplomas contain information about the awarded qualification, including the achieved learning outcomes reflected in the diploma supplement transcript. The transcript provides grades for each academic discipline in a credit-rating letter grading system, indicating the credit volume. It also includes information on professional practice, completion and defence of the diploma project, the total number of earned ECTS credits, GPA, educational programme, and the conferred qualification. For the purpose anti-plagiarism strategy, the university employs the StrikePlagiarism system, developed by the Polish company Plagiat.pl.

The university independently carries out the recognition of learning outcomes of formal and non-formal education, including microqualifications, nano-credits and buildable degrees (Stackable degree) in accordance with the Concept of lifelong learning (lifelong education) approved by the Government of the Republic of Kazakhstan from 8 July 2021 № 471. The general procedure for the recognition of learning outcomes of formal and non-formal education is regulated by the Regulations "On the Procedure for the Recognition of Learning Outcomes of Formal and Non-Formal Education at Yesenov University".

4.2 Assessment

Admission of students appears to follow a transparent and fair procedure. Admission to undergraduate programmes requires an admission test covering up to 5 subjects. Applicants for master's and doctoral programmes have to pass comprehensive tests (CT) or entrance exams. There is a number of grants conceded by the local industry and the government for which every student may apply. The decision regarding industrial grants is taken by the respective company, usually following the recommendation of the university. The admission fees are kept in a moderate range. The main clientele originates from the middle class. (Students from the upper class commonly choose high ranked universities at larger cities or even abroad.)

The university employs a comprehensive range of assessment methods to systematically monitor student progress and assess expected learning outcomes. The criteria for assessing learning outcomes are transparent, consistent, objective, fair to all students and encourage their learning. All requirements for passing intermediate and final certifications are set out in syllabuses.

The procedure of recognition and certification is described in detail in the self-report. Conversations with students did not reveal any dissatisfaction in terms of lack of incentives or unfairness.

Upon graduation, students receive comprehensive graduation documents that list the qualification and function of the qualification gained, content and results gained. The Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES.

4.3 Conclusion

The criterion is **fulfilled**.

5 ESG Standard 1.5: Teaching staff

Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff

5.1 Implementation

For fulfilling the university's mission, the faculty staff (FS) is the primary resource. Therefore, the university reports to pay high attention to the processes of staff recruitment and training. Personnel policy is implemented in accordance with the main priorities of the university's strategy. The faculty staff holds the academic degrees Professor, PhD, Candidate of Sciences or a Master Degree.

Recruitment

The recruitment of employees for vacant positions is carried out in accordance with the Rules for Competitive Appointment to Positions of the Faculty, Administrative Staff, and Researchers of the University. The main objective of the competition is to form a highly professional staff and to select candidates who are most suitable for filling the vacant positions and are meeting the qualification requirements. Competitions for filling positions are announced as vacancies arise at the university, as new positions are created, or when personnel movements occur. The competition rules are based on the principles of legality, meritocracy, prohibition of discrimination in the labour sphere, prioritization of workers' lives and health, and competitiveness. The requirements of these Rules apply to competitive appointments to vacant positions for faculty members, researchers, and administrative-management staff.

Vacant positions for faculty members are formed based on a preliminary staff list calculated according to the total volume of teaching workload, excluding the first-year student cohort. The calculation of the teaching workload determines the number of vacant positions for the faculty

(school, academy). The competition is open to applicants who meet the qualification requirements of the faculty. An announcement regarding the competition is posted on the university's website and on online platforms, no later than thirty calendar days before the deadline for document submission.

The number and composition of the competition commission at the university are approved annually by the decision of the Academic Council. The tasks of the competition commission are ensuring equal opportunities and fair competition, monitoring compliance with the objectivity and transparency of the competition process and ensuring the adoption of an objective decision.

The competition consists of the following stages:

- Review of the competition documentation and as well as the results of Key Performance Indicators assessment.
- Conducting a demonstration lesson by the applicant to assess teaching skills.
- Conducting interviews with candidates based on the Academic Council-approved Competency Checklist to assess additional professional and personal qualities of candidates.
- Decision-making and conclusion of the competition: After a positive decision by the competition commission, a labour contract is concluded with the faculty member.
- The competition commission decides whether to conduct an open or secret ballot for the competitive selection to fill vacant positions.

Key Performance Indicators (KPIs)

The assessment of faculty performance based on KPIs is aimed at motivating university staff to independently develop necessary competencies and focus on achieving specific results. The system contributes to the implementation of effective personnel policies, identification and development of individual abilities, professional skills, and competencies, increasing accountability for assigned tasks, and the effectiveness of faculty performance. According to the university the system facilitates the achievement of the university's strategic goals and the fulfilment of key indicators of the strategic development programme.

Indicators for assessing faculty performance based on KPIs are adjusted annually in accordance with the indicators of the university's strategic development programme. The rating assessment of teachers' professional activities is conducted according to a unified scheme and includes three aspects: educational and methodological work; scientific work; educational and social work.

The improvement in the quality of teaching disciplines assigned to faculty members, as determined by the working group, is assessed in the form of a bonus equivalent to one salary grade for the academic year, based on accumulated points. Teachers upload their data into the automated system by May 30th, and data verification is conducted by June 10th of the current academic year. The rating is calculated for the academic year.

Training and Continuous Education

Annually, faculty members undergo training in the Institute of Continuous Education (ICE) to enhance their qualifications, focusing on the profile of educational programmes, with the participation of both domestic and international lecturers. For example, in the 2021/2022 academic year, the ICE conducted a qualification enhancement course, covering topics such as "Optimization of Oil and Gas Fields" "Economics of Drilling and Approval of Cost Estimates" for faculty members.

Furthermore, the entire personnel have upgraded their qualifications through the online education platform Coursera and possess certificates. In 2021, the university, in collaboration with "SKILLFOLIO" (a digital university for EQ and SOFT SKILLS diagnostics and development based in Moscow) signed a contract to train faculty members. Among them, 20 faculty members completed a professional development programme on the topic "Development of tutoring competencies for the modern educator using the digital platform Skillfolio," and 15 faculty members participated in an online Intensive for top management in the education system focused on "Preventing Burnout." Furthermore, the 18 trained faculty members conducted courses on "Development of tutoring competencies for the modern educator using the digital platform Skillfolio" for 346 individuals, including 288 faculty members and 58 administrative staff.

Teachers who hold international certificates such as IELTS and TOEFL, confirming their proficiency in the English language, are entitled to bonuses and supplements upon obtaining CELTA and TKT, TESOL certificates. This measure aims to proportionally stimulate the teaching workload of English language instructors. Between 2019 and 2022, 37 teachers underwent international certification in CELTA and TKT, TESOL.

In the academic year 2022-2023, as part of the international scholarship program "Bolashak," 4 university staff members successfully completed academic internships in the United States of America.

Research opportunities

The university has opened a position for a part-time teaching and research faculty member to provide opportunities for engaging in scientific research activities. Scientific research is con-

ducted in close interaction with the educational process, carried out in the departments in accordance with the individual work plans of the teachers, which are drawn up at the beginning of the academic year and the implementation of which is monitored by the department. A component of the university's scientific development planning system is the annual plan of research work for departments, which includes planning criteria such as: research work of the department; preparation and defence of master's dissertations; planned publications; organization of scientific conferences, seminars, exhibitions, etc.; research work of doctoral, of master's and of bachelor's students.

Throughout the academic year, the implementation of the research plan of the faculties is reviewed at meetings of the Research Council (a collegial governing body of the university) according to the schedule of meetings. Also, the implementation of research activities is monitored by the Research Council, actively participating in the review of doctoral and master's dissertations.

To foster publications, students and staff of the university have free access to modern electronic databases such as Scopus, Thomson Reuters, and others. Publications in reputable journals, included in international scient metric databases (Web of Science, Scopus), amounted to 117 units for the study programmes in this cluster.

Annually, the university participates in a competition for grant funding for scientific research conducted by the Ministry of Science and Higher Education of the Republic of Kazakhstan. Additionally, the university has obtained more than 100 copyright certificates and more than 10 patents.

To support socially and economically significant scientific research conducted by university scholars aimed at improving the quality of life and implementing advanced knowledge and technologies into the socio-economic life of the region, the University established the Institute for Sustainable Development of Arid Territories in 2022. This institute consists of 6 research centres:

1. Green Technologies Centre;
2. Water Desalination and Purification Research Centre;
3. Regional Centre for Ecology and Monitoring of the Caspian Ecosystem;
4. Regional Ethnography Research Centre;
5. Petrochemistry and Oil Refining Centre;
6. Digital Technologies Centre.

Academic Mobility

Academic mobility of teaching staff is one of the key directions of international and educational activities at the university. It aims to enhance the competitiveness of faculty members and the quality of higher education, establish external and internal integration links, exchange experiences with leading domestic and foreign universities, and achieve international comparability of educational standards. In the current academic year, a total of 232 faculty members exchanged to universities through academic mobility programmes of which 79 faculty members of the educational programmes in this cluster.

Teaching methods

The university reports to place significant emphasis on enhancing the teaching staff's competencies in modern teaching and learning methods. These include interactive lectures, problem-based lectures, lecture-conversations, case methods, project-based learning (PBL), lecture-discussions, game-based learning, laboratory methods among others.

In February 2021, the university organized a “Digital Educator” course in order to improve the digital competencies of teachers (e.g. for Jamboard / Flipgrid, Padlet, Prezi, Miro). In April 2021, experts conducted online training seminars for the university teaching staff on the development of original syllabuses and innovative teaching methods. As outcomes from the seminars, the university teachers presented 6 original syllabuses and 12 cases on innovative teaching methods that they had developed. 300 teachers participated in the seminars.

The teaching methods used are constantly assessed through student surveys. Questionnaire data is provided to faculties to Quality Commissions to analyse the implementation of educational programmes and take specific measures to improve the quality of teaching in the disciplines.

The Institute of Continuous Education constantly conducts advanced training courses for teachers, which improve the professional competencies of the teaching staff and correspond to the core disciplines of educational programmes, and scientific seminars that correspond to the scientific directions of the university.

5.2 Assessment

The basis for the successful and competitive development of the departments is determined by qualified teaching staff, preserving the continuity of the best departmental traditions and introducing new ways to solve educational and research problems. The teaching staff consists of 14 full professors, where of 7 fully work at the Yessenov University, 151 associate professors, whereof 119 fully work at the Yessenov University and 155 assistant professors, whereof 109 fully work at the Yessenov University. Thus, the vast majority of the teaching load is covered by associate and assistant professors. Other teachers are either invited from other national or international universities or are representatives from industry. In general, this grants an excellent mixture of young and experienced teachers as well as academic and industrial

points of view. The existing staff is highly competent and highly committed to meeting students' needs and providing good guidance through the programmes. Nevertheless, the number of PhD doctors among teaching staff should be increased to secure the scientific level of the degree programmes in the long term and thus increase the academic quality of the degree programmes.

The under-representation of female professors in university management was noted during the site visit. The proportion of female professors in university management should be increased and be continuously staffed. Incentives and opportunities should be created to enable a better balance between work and family life.

Teachers are selected by a competitive application process. The Yessenov University has defined a clear and transparent ruleset for recruiting the most professional candidates also considering legal and non-discriminatory aspects. The process is well-described and transparent. The teaching staff appears highly educated and fully capable, both in terms of content and capacity, of implementing the study programmes.

The University has a clear and transparent process of development of teaching staff. The teaching staff systematically improve their professional qualifications by undergoing training in the Institute of Continuous Education and international certification in CELTA and TKT, TESOL, upgrading their qualifications through the online education platform Coursera. Teachers are supported in improving their skills in modern teaching and learning methods.

Teaching staff are actively involved in scientific projects funded by the Committee of Science of MS&HE RK, as well as in extra-budgetary topics ordered by the partners. Teachers of the faculty take an active part in the organization and implementation of large-scale regional and university events, information and explanatory campaigns, scientific and expert discussions on current issues of public policy and public life of the country. Some of them are active in scientific publishing (in the database Scopus, Web of Science, journals recommended by the Committee for Quality Assurance in the Field of Science and Higher Education of the (CQAFSHE) MS&HE RK). Nevertheless, scientific activities should be strengthened to enable teachers to identify emerging trends and topics for the curriculum. Care should be taken to ensure that teaching staff have sufficient time for research in addition to teaching. The university staff as well as young graduates should be encouraged and given the space to conduct own research beyond the topics of KMG, including research stays abroad.

The academic mobility of teachers and students should be supported and encouraged. Increased academic mobility of teachers will contribute to the qualitative growth of the teaching staff through partner exchanges with domestic and foreign universities.

English language skills of teachers and students should be improved in order to stimulate exchange programmes and provide bilingual study programmes. In this respect, the expert group

makes a recommendation for the development of a strategic foreign language concept to systematically improve the English language skills of teachers and students. All teachers should be able to speak English. To this end, appropriate training opportunities and incentives should be provided, including for administrative staff. Students should also be strongly encouraged to learn English and corresponding language courses should be offered. Students should be able to read international contemporary literature in English language. In this respect, the expert group welcomes the pilot project (the Yessenov Language Centre) aimed at improving the knowledge of foreign languages. The number of courses taught in English should gradually be increased. Current activities directed towards improvement of language skills should be valued by the management and efforts of conducting lectures in English language (e.g. in Bachelor's and Master's degree programmes Oil and Gas Engineering) should be honoured accordingly.

5.3 Conclusion

The criterion is **fulfilled**.

Recommendation:

- The number of PhD doctors among teaching staff should be increased to secure the scientific level of the degree programmes in the long term and thus increase the academic quality of the degree programmes.
- The proportion of female professors in university management should be increased and be continuously staffed. Incentives and opportunities should be created to enable a better balance between work and family life.
- Care should be taken to ensure that teaching staff have sufficient time for research in addition to teaching. The university staff as well as young graduates should be encouraged and given the space to conduct own research beyond the topics of KMG, including research stays abroad.
- Incentives should be created to encourage teaching staff and students to make greater use of academic mobility.
- A university-wide concept for the development of English language skills for teaching staff and students should be developed and implemented.

6 ESG Standard 1.6: Learning resources and student support

Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.

6.1 Implementation

Material and technical resources

The university operates 11 computer labs and has 75 projectors with screens evenly distributed among the faculties. The university's fleet of personal computers consists of 1214 units, including 931 units used in the educational process (computer labs, laboratories) and 283 units for administration and teaching staff. The university has over 380 all-in-one computers equipped with modern software. Programs such as MS Projects, Auto Cad, Electronics Workbench, Python, and 1C are installed. Every student, faculty member, and university staff member have access to the internet throughout the campus through the wireless network.

The university has a total area of 11,860.0 square meters for sports facilities. There are 14 sports sections e.g. boxing, swimming, volleyball and others. The university has 4 student dormitories located within the city, providing accommodation for 1750 students. The dormitories are equipped with the necessary facilities.

The Department of Ecology and Geology is equipped with laboratory equipment for assessing the quality of environmental components, totalling 10 million tenge. The Crystallography and Mineralogy Laboratory is equipped with a polarization microscope of the BD-PL1506 series, an eyepiece device with video camera output (trinocular) connected to a projector, acquired by the university in 2019. For practical training of specialists in the oil and gas industry, there is an outdoor training laboratory site covering an area of 4396 square meters.

Library

The library collection is formed based on the curriculum of all educational programmes and is shaped and supplemented according to departmental requests. At the beginning of the academic year, a map of educational and methodological support for disciplines is compiled in coordination with the library. The total library collection comprises 30,466 titles and 400,293 copies, including volumes of educational, scientific, and fiction literature, as indicated in the table:

There are a total of 289 seats, out of which 45 are equipped with computers and equipped with scanners. The university library operates on the "KABIS" programme. All major library procedures are automated: cataloguing, inventory, and processing of the collection. The electronic catalogue is constantly updated with new arrivals, and access to it is provided through the library's website.

Learning resources

The Flipped Classroom is an instructional model in which the teacher provides students with material for independent study at home, and practical reinforcement of the material takes place

during in-class sessions at the university. The freed-up time during the class is then devoted to problem-solving, collaboration, and interaction with students. Flipped Classroom sessions for 18 undergraduate disciplines of the General Educational Disciplines cycle are conducted using this model.

To facilitate communicative interaction of students with certain disciplines representing potential hazards (e.g. study programmes oil and gas engineering, mechanical engineering, energy), the experts at the Centre for Educational Resource Development are engaged in developing virtual reality content. This content enhances interest in practical sessions and reduces the demand for physical technical equipment in the laboratory.

In the current academic year, work has begun on adopting the Coursera massive open online education platform. Under the auspices of the Ministry of Science and Education of the Republic of Kazakhstan, 1,000 of the university's students have started taking courses related to the university's disciplines on the platform. The experts from the Centre oversee and provide consultation services to students and university instructors on registration and completion of courses on the Coursera platform. At present, more than 550 students have completed the courses and received corresponding certificates.

Advisors conduct organizational, methodological, and advisory work in shaping students' individual learning trajectories and mastering educational programmes by creating an Individual Study Plan for each academic year.

Student government UNION

UNION operates at the university to address key issues related to improving student life, leisure activities, relations with other universities, and protecting students' rights. The leader of UNION has the right to membership in the university's collegiate bodies. For example, upon the suggestion of the UNION president, a recreation room for students was opened, where students plan and prepare the organization of cultural events on various topics and hold UNION meetings. There are 7 youth clubs and associations for self-development and creative interests of students.

Social support for students

In order to improve the social conditions, promote a healthy lifestyle, and stimulate participation in the educational, scientific-research, sports, and social life of the university, the university has developed a Social Package for students. Within this framework, social support can be provided in various directions:

- Tuition fee discounts
- Dormitory Accommodation Discount

- Rewards for High Achievements in Academic, Sports, Scientific-Research, and Social Activities
- Free primary healthcare services and medical services at the municipal medical institution

Employment

To assist graduates in finding employment, the university holds various events annually. These include job fairs, roundtable discussions with employers, as well as training sessions and workshops on effective job placement strategies. Furthermore, an open-access YouTube channel called "Career Office YU" was launched with the aim of promoting the career growth of graduates in 2023.

Academic mobility

The university's students study within the framework of academic mobility based on agreements and memorandums of mutual cooperation with foreign and Kazakhstan higher education institutions. The development of academic mobility at the university serves as a mechanism for entering the global educational space. This is why promoting the development of international academic mobility is an important direction in the university's international activities. In the 2022-23 academic year, within the framework of external outgoing academic mobility, 202 students have been sent to universities for instance in Austria, Turkey, Vietnam, Russia, Azerbaijan, and Uzbekistan. Concerning nationwide exchange programmes that are referred to as internal outgoing academic mobility, 165 students have undergone training at universities in Kazakhstan in the academic year 2022-2023. When implementing academic mobility with foreign and Kazakh universities, there is a mandatory mutual transfer of academic credits for completed educational and research work.

Further services

Yessenov Language Centre is a pilot project of the university aimed at creating new opportunities for students and university staff, as well as improving the level of language proficiency in the Mangystau region by implementing international standards for English language education (academic English, preparation for IELTS). Additionally, there are courses available for Turkish, French, and Korean languages.

The university has developed a Single Sign-On (SSO) technology and implemented the YU ID unified login portal. This portal enables easy access to university information resources using a single login and password for all information systems, including corporate email (GMail), Canvas Learning Management System (LMS), Univer, Science Journal, Key Performance Indicators, HelpDesk, and others. The Yessenov Mobile is a mobile application that offers a wide

range of functional capabilities, making it easy and convenient to access various services provided within the university. For example, it allows students to submit requests for various services, such as obtaining official transcripts or certificates of enrolment.

Inclusion

As part of inclusive education, the university has organized the following facilities: ramps for people with limited mobility; entrances equipped with special handrails; toilets equipped for individuals with disabilities; special parking spaces; the possibility to widen doorways; tactile guiding strips; non-slip flooring.

6.2 Assessment

It should be emphasized that the expert group rated the university with its faculties, departments and centres, the registrar's office, the centre for the development of educational resources, computer classes, educational laboratories, the library, etc. as very good. The Yessenov University has a sufficient material and technical base within university structure for all educational programmes and is supported by local manufacturing partners, research institutes such as Kazmunaigas, Karazhambasmunai, Kazakh Research and Design Institute of Oil and Gas, etc. This confirms their close contact with partners and graduates of the university and continues the link between education and science with production. Students at all levels have free access to carry out their research on the basis of the above-mentioned partners.

During the on-site-visit, the university at the Faculty of Engineering was able to confirm its base with all supporting documents (laboratory passports). Laboratory documentation and passports were presented in the following areas:

6B07111 - Transport, transport equipment and technology (Laboratory "Transport Engineering and Technology").

6B07106 - Electric power industry (Laboratory "Electrical engineering, electronics and electrical measurements"; Laboratory "Heat engineering, thermodynamics and renewable energy sources").

6B11201 - Life safety and environmental protection (Research Laboratory "Industrial Ecology and Chemical Technologies"; Specialized office "Occupational Health and Safety"; Laboratory "Digital Technologies in Ecology").

6B06103 - Computer technology and software (Laboratory "Computer Technologies").

6B07307 - Cadastre (Laboratory "Geodesy" Office "Cadastre and Land Management"; Laboratory "Additive Technologies"; Laboratory "Building structures"; Laboratory "Building materials"; Research laboratory "Nature management and geographic information systems technologies").

6B07109 - Mechanical Engineering; 7M07109- Mechanical Engineering (Laboratory “Metal-cutting machines and tools”; Laboratory “Machine parts”; Laboratory “Materials Science and Technology of Structural Materials”; Laboratory “Welding Technologies”; Laboratory “Interchangeability and Standardization”).

6B07210 - Oil and gas engineering; 7M07210 - Oil and gas engineering (master's degree), (Laboratory "Drilling and oilfield equipment"; Laboratory “Well Drilling Technology”; “Virtual laboratory of oil and gas specialties”; Laboratory "Engineering and technology for enhanced oil recovery"; Laboratory "Engineering and technology of oil production"; Laboratory “Anti-corrosion protection of oil and gas equipment in the system of collection, preparation and transportation of well products”).

8D07208 - Geology and exploration of mineral deposits (Laboratory "Crystallography and Mineralogy"; Laboratory "Physics of Reservoir" Laboratory "Petrophysics and Geophysics"; Laboratory "General and Petroleum Geology"; Laboratory “Digital Technologies in Geology”).

Students receive social support in the form of discounts on tuition fees or dormitory accommodation, and are rewarded for their sporting, academic and social achievements. They are also supported in their job search through job fairs, workshops and the YU Career Office Youtube channel. The International Office provides assistance with academic mobility issues. The academic mobility of students is carried out within the framework of inter-university cooperation, agreements and memoranda of understanding.

6.3 Conclusion

The criterion is **fulfilled**.

7 ESG Standard 1.7: Information management

Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.

7.1 Implementation

There is an alumni database maintained for the purpose of analysing the employment status of graduates from previous years. Quarterly, the Career Office compiles information on the employment status of graduates. Requests for certificates from the Population Service Centre regarding pension contributions are made. Then, the percentage of graduates employed by the university is calculated to identify the reasons for unemployment. Additionally, confirmation certificates are collected from the workplaces of graduates who were educated under the State Order (funded by the state) since these graduates are required to fulfil mandatory work obligations.

Every year, a survey is conducted among students using Google Forms. Subsequently, the data is exported into an Excel spreadsheet and analysed by the Quality Assurance Office. This analysis was presented at the Academic Council (the collegial body of the university) and further disseminated to the faculties for follow-up actions.

Additionally, at the end of the academic year, all structural units compile reports on the work done according to the approved plan. These reports are then submitted to the supervising vice-presidents, who report to the University Academic Council on their respective areas of responsibility.

Every year, the Centre for Public Opinion Research conducts a comprehensive sociological study entitled "The Brand Index and Happiness Index in the Context of Yessenov University", aimed at assessing the status of key indicators of the university's image and identifying the optimal set of tools for the effective development of the university's brand. The research includes participants from various groups of the university and its stakeholders. Based on these results, e.g. the following recommendation was made: To enhance the informational support for career guidance work in secondary schools, the university should provide substantial content on its official website and social media platforms, addressing prospective students and their parents.

7.2 Assessment

The university has implemented information management processes, including processes for collecting and analyzing information. In this regard, the university has identified persons who are responsible for the information and technical support of the accredited educational programmes.

The university conducts annually an internal audit to assess compliance with ISO Quality management systems. Audit documents are stored in a quality assurance office.

Using alumni databases, surveys are compiled to find out information about the satisfaction with the programmes, which are then provided to the academic council and the faculties for further actions. Another study results in the investigation of a "brand index and happiness index" where students, employees, and external entities are involved.

Dissemination of information and receipt of feedback is carried out through meetings of collegial bodies and working groups created to solve current problems. The following information technologies have been introduced into the management activities of the university, such as an information website, an educational portal and others. Several statistics are gathered, and results are reported to the academic council. Recommendations are then developed to improve education and research.

A feedback procedure has been established with students, allowing them to identify their satisfaction with the quality of the implemented educational programmes. During the conversation with students, they noted that they had the opportunity to contact the teaching staff or the university administration with their proposals.

7.3 Conclusion

The criterion is **fulfilled**.

8 ESG Standard 1.8: Public information

Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.

8.1 Implementation

In accordance with the strategic objectives of the university, the Marketing and Communications Department aims to shape the public opinion about events and news, and communicates the university's mission and vision to the public. Its main function is to establish relations with the mass media and civil society, exchange expert opinions on current regional issues, and cover the activities of the faculty. Furthermore, the department collaborates with the media, maintains the news page of the university website, and manages the university's social media presence on Facebook (2900 followers), Instagram (16.2 thousand followers), YouTube (1.81 thousand subscribers), TikTok (5500 followers). The university's website provides the public and prospective students with comprehensive information about the university's activities and study programmes.

The department's staff handle internal and external communications, organise university events, and manage the university's photo and video archives. For example, in the current academic year, the University ranks 3rd out of 120 universities across the country based on TikTok likes, and 2nd in terms of Instagram activity. This indicates that the university's social media platforms are highly active, and prospective students are also choosing the university through social media. The management aims to enhance the level of prestige among prospective students, current students, staff, and other universities at both regional and national levels, while also increasing the value of the Yessenov University brand.

The Yessenov University's website and social media accounts:

- University's website: <https://yu.edu.kz/ru/>
- Instagram: <https://instagram.com/yessenovuniversity?igshid=NTdIMDg3MTY=>
- Facebook: <https://www.facebook.com/YessenovUniversity>
- YouTube: <https://www.youtube.com/@yessenovuniversity3142>

- Telegram: <https://t.me/YessenovUniversity>
- TikTok: https://www.tiktok.com/@yu_house? t=8aDch8HOlol& r=1&fbclid=PAAab2tMIFz_0-XC-c2Sn5dUZJJ2_j3EaWJW1QmOJGVI4gZ1IBgnGmlu2dH6l

During career guidance activities and information sessions among high school graduates, college students, bachelor's, and master's degree holders at universities, promotional materials such as brochures and branded items featuring the Yessenov University branding are distributed.

8.2 Assessment

Public information is well-structured and integrates perfectly into the website of Yessenov University. The university website provides the following information: general information about the university as an educational institution as the history of the University, departments, materials about the events of the current life of the university, events held at the university, news archives and information about faculties. Information on education is provided as well, for instance on forms of education, reference materials about the educational programmers and expected learning outcomes, rules for admission to the university, materials on the organization of the educational process, information on scientific and innovative activities, and international contacts of the university. Public information is available on the website in Kazakh, Russian and English language. However, some links on the English website refer to Russian/Kazakh language pages. All information should be consistently available in all languages. Changing the language should not refer to the main website of the faculty in the requested language but change the language of the currently shown page.

The website provides detailed background information about the university; here applicants and undergraduates can find answers to all their questions about educational resources and other activities of the university. Activities in research and education are very recent in all languages. Responsible representatives of the faculty and the departments and the teachers as well as their respective contact information can be found easily. The website has a section for graduates where vacancies offered to them are posted.

Concerning the programmes, only the programmes of the Department of Petrochemical Engineering are listed in the student section of the Faculty of Engineering. It should contain the programmes of all departments and programmes could be described in more detail. In the experts' point of view, study and examination regulations, a schedule and module handbooks would be especially helpful resources for future students to be accessible on the website.

The information about the departments is currently not fully provided and should be updated.

8.3 Conclusion

The criterion is **fulfilled**.

Recommendations

- All information on the university's website should be consistently available in three languages (in Kazakh, Russian and English). Changing the language should not refer to the main website of the faculty in the requested language but change the language of the currently shown page.
- The student section of the Faculty of Engineering should contain the programmes of all departments. These should be described in more detail.
- An updated information about the departments on the university's website should be available.

9 ESG Standard 1.9: On-going monitoring and periodic review of programmes

Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.

9.1 Implementation

The university operates a system for monitoring and periodically reviewing educational programmes to ensure their quality. Academic committees for groups of educational programmes have been formed at the faculties to develop and improve educational programmes. These committees include representatives from employers, students, and the faculty. Each year, faculties hold meetings with employers to update learning outcomes and the list of disciplines based on changes in labour market conditions. All updated programmes are subject to external and internal review, with experts from the Bologna Process Centre evaluating programmes when more than 50% of learning outcomes and disciplines are updated.

Annual student satisfaction surveys are conducted regarding educational programmes, teaching methods, and assessment. Based on these surveys, adjustments are made to the mechanisms of implementing educational programmes. A working group has been established in the university to improve teaching quality through the implementation of new teaching methods, such as Lesson Study, based on research conducted during lessons.

The project "Atlas of New Professions and Competencies of the Mangystau Region" is aimed at forecasting and studying professional directions that contribute to the region's development. The atlas was developed to provide high school graduates, youth, and professionals with information about the most promising professions that will be in demand in the near future. As part of the project, foresight sessions were conducted for three areas: oil and gas industry, tourism, and education and pedagogy. Regional trends in professional development were analysed while taking into account the potential influence of global trends. New opportunities

related to the development of the specified sectors of the economy of the Mangystau region were identified. As a result, the Atlas included 39 new professions for the region.

The monitoring of accredited educational programmes is coordinated by the Quality Assurance Office, which oversees the submission of annual reports on post-accreditation monitoring to the national Accreditation Agency. Post-accreditation monitoring aims to monitor the implementation of recommendations provided by external expert commissions for accredited educational programmes, in accordance with the criteria and standards of specialized accreditation. Additionally, monitoring is conducted for the preparation of new accreditation for those educational programmes whose accreditation period is expiring.

9.2 Assessment

The Yessenov University in Aktau regularly monitors and reviews its programmes through various forms of academic committees and evaluations. The processes are aimed at ensuring the quality and supporting the further development of the programmes. External and internal reviews are also carried out to evaluate the programmes. Annual student satisfaction surveys as well as surveys of the employees of the Yessenov University of Aktau are part of the evaluations. The expert group therefore believes that the objectives are being achieved and that the needs of students and society are being included in the respective measures. Discussions with students have shown that potential improvements are taken into account by those responsible at the university.

Continuous improvement of the programmes is possible within the organizational framework and is also being realised by the university. In addition, planned measures are communicated to those concerned. The Yessenov University of Aktau is accredited by the national agency, where regular checks are also carried out and continuous improvement measures are justified and implemented. Overall, it could be shown to the expert panel that this criterion is well implemented at the university and that no additional measures are necessary.

9.3 Conclusion

The criterion is **fulfilled**.

10 ESG Standard 1.10: Cyclical external quality assurance

Institutions should undergo external quality assurance in line with the ESG on a cyclical basis
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10.1 Implementation

The university undergoes periodic external quality assessments, including institutional accreditation, specialized accreditation of educational programmes and Atameken ratings. The university participates in the National Ranking among Universities of the Republic of Kazakhstan. Additionally, the university undergoes annual external audits to ensure compliance with the International Standard ISO 9001:2015.

The university underwent institutional accreditation at the Accreditation, Certification, and Quality Assurance Institute ACQUIN (Germany) until September 30, 2028.

Concerning the specialized accreditation, 57 educational programmes are accredited by IQAA (Independent Agency for Quality Assurance in Education) and two educational programmes are accredited by KAZSEE (Kazakhstan Association of Engineering Education).

The university participates in the annual Atameken Rating. This independent assessment of educational programmes is organized by the National Chamber of Entrepreneurs of the Republic of Kazakhstan and the Ministry of Education and Science of the Republic of Kazakhstan. The goal of this rating was to create a convenient tool for prospective students and parents to choose the best educational institution from among the variety of universities in the country. The tool relies on parameters such as the employment rate, the average salary of graduates in the first year, expert evaluations of educational programmes, and, of course, the quality of education. For instance, the university reached the 3rd rank out of 8 universities in Kazakhstan for the programme 6B07307 Cadastre in 2021.

10.2 Assessment

The procedures for external evaluation of the quality of individual study programmes are conducted in accordance with the requirements of the laws of the Republic of Kazakhstan in the field of education. Yessenov University embraces the concept of Cyclical External Quality Assurance as a process of periodic external evaluation of the quality of higher education institutions, as well as of academic programmes. Overall, while the Yessenov University conducts ongoing and periodic reviews of its courses to maintain the quality of its programmes, cyclical reviews by external experts are conducted as well. Furthermore, the university has successfully passed institutional accreditation that covers different organisational levels and status groups of the institution.

Collaboration with external stakeholders such as regional cooperation partners and graduates is particularly important for the Yessenov University in order to gain impetus for continuous internal quality development. These collaboration and networking activities are rated positively by the experts as it connects the university with society.

The university views national and international accreditation processes as an opportunity for continuous enhancement and ensures that previous recommendations are thoroughly addressed.

10.3 Conclusion

The criterion is **fulfilled**.

IV Recommendation to the Accreditation Commission of ACQUIN

1 **Assessment of compliance the Standards and Guidelines in the Higher European Area (ESG) in the actual official version and the German Council of Science and Humanities (WR)**

The study programmes 6B07111 – Transport, Transport Engineering and Technologies (Bachelor), 6B07106 – Electric Power Engineering (Bachelor), 6B11201 – Life Safety and Environmental Protection (Bachelor), 6B06103 – Computer Engineering and Software (Bachelor), 6B07307 – Cadastre (Bachelor), 6B07109 – Mechanical Engineering (Bachelor), 7M07109 – Mechanical Engineering (Master), 6B07210 – Oil and Gas Engineering (Bachelor), 7M07210 – Oil and Gas Engineering (Master), 8D07208 – Geology and Mineral Deposit Exploration (PhD) were assessed on the basis of the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG), the Salzburg Recommendations (applicable for doctorate programmes).

The expert group concludes that the **ESG standards** 1.1 (Policy for quality assurance), 1.2 (Design and approval of programmes), 1.3 (Student-centred learning, teaching and assessment), 1.4 (Student admission, progression, recognition and certification), 1.5 (Teaching staff), 1.6 (Learning resources and student support), 1.7 (Information management), 1.8 (Public information), 1.9 (On-going monitoring and periodic review of programmes) and 1.10 (Cyclical external quality assurance) are fulfilled.

The expert group concludes that the **Salzburg Recommendations** 1 (Research as the basis and the difference), 2 (Critical mass and critical diversity), 3 (Recruitment, admission and status), 4 (Supervision), 5 (Outcomes), 6 (Career development), 7 (Credits), 8 (Quality and accountability), 9 (Internationalisation), 10 (Funding) 11 (Autonomy), 12 (Legal framework) and 13 (Intersectoral collaboration) are fulfilled.

2 Accreditation Recommendation

The peer-review experts recommend **unconditional accreditation** of 6B07111 – Transport, Transport Engineering and Technologies (Bachelor), 6B07106 – Electric Power Engineering (Bachelor), 6B11201 – Life Safety and Environmental Protection (Bachelor), 6B06103 – Computer Engineering and Software (Bachelor), 6B07307 – Cadastre (Bachelor), 6B07109 – Mechanical Engineering (Bachelor), 7M07109 – Mechanical Engineering (Master), 6B07210 – Oil and Gas Engineering (Bachelor), 7M07210 – Oil and Gas Engineering (Master), 8D07208 – Geology and Mineral Deposit Exploration (PhD).

The peer-review experts recommend the following:

General recommendations

1. Central regulatory documents such as quality policy regulations should be available in English on the homepage to support the enhancement of internationalization.
2. A sustainability concept should be developed for the further development of the university. This concept should be implemented in all study programmes.
3. The university should develop an international profile and a future-proof internationalization strategy and intensify international cooperation in terms of academic student and staff mobility.
4. The university should develop a research strategy and find specific topics or niches whose research results are specifically reflected in the degree programmes. Research should be further promoted, e.g. through more research centres. The university should develop a spirit of innovation independent from the needs of the local industry.
5. There should be more academic freedom in the design of study programmes, independent of the Kazakh Ministry of Education, in order to achieve more individualised study programme curricula.
6. The number of PhD doctors among teaching staff should be increased to secure the scientific level of the degree programmes in the long term and thus increase the academic quality of the degree programmes.
7. The proportion of female professors in university management should be increased and be continuously staffed. Incentives and opportunities should be created to enable a better balance between work and family life.
8. Care should be taken to ensure that teaching staff have sufficient time for research in addition to teaching. The university staff as well as young graduates should be encouraged

and given the space to conduct own research beyond the topics of KMG, including research stays abroad.

9. Incentives should be created to encourage teaching staff and students to make greater use of academic mobility.
10. A university-wide concept for the development of English language skills for teaching staff and students should be developed and implemented.
11. All information on the university's website should be consistently available in three languages (in Kazakh, Russian and English). Changing the language should not refer to the main website of the faculty in the requested language but change the language of the currently shown page.
12. The student section of the Faculty of Engineering should contain the programmes of all departments. These should be described in more detail.
13. An updated information about the departments on the university's website should be available.

Programme-specific recommendations:

6B07111 – Transport, Transport Engineering and Technologies (Bachelor)

1. The university should modernise the equipment used for laboratory studies.
2. The university should introduce more modern subjects related to artificial intelligence in transport and maintenance and service of electric transport.

6B07106 – Electric Power Engineering (Bachelor)

1. An additional math course should be offered either as an elective module or as a minor.
2. The modules should be revised to ensure that there is no redundancy in content and that they are distinctively named according to the content being taught.

6B11201 – Life Safety and Environmental Protection (Bachelor)

1. The introduction of an additional course in the field of occupational health and safety in accordance with the group of the educational programme GOP B094 - "Sanitary and preventive measures" and the direction "Hygiene and occupational safety at work" of the classifier of the direction MS&HE RK should be considered.

6B06103 – Computer Technology and Software (Bachelor)

1. The curriculum should regularly be revisited and compared against international standards such as the ACM CS curriculum.
2. Literature and learning material should be more based on standard textbooks in English or Russian.
3. The content of courses should have a focus on concepts that have a longer life span than frequently changing specific technologies.
4. The situation of high dropout rates should be the subject of continuous monitoring and appropriate measures should be taken.

6B07307 – Cadastre (Bachelor)

1. The curriculum and learning outcomes should be regularly reviewed and benchmarked against those of leading national and international universities.
2. Disciplines such as Engineering Territory Development, Landscape Design and Inter-farm Land Management should be included in the curriculum.
3. Major subjects, such as “GIS technologies in cadastre”, are recommended to be assigned to the graduating department of the educational programme.
4. To deepen the practical orientation of the educational programme, the university should introduce dual training and open branches of departments in production.

6B07109 – Mechanical Engineering (Bachelor)

1. Modules such as Machine Vision, Simulation and Robotics should be included in the curriculum.
2. A stronger integration of the future topic of sustainability into the individual modules is recommended, as is close cooperation with the newly established German-Kazakh Institute for Sustainable Engineering.
3. Teaching methods should be adapted to the requirements of the examinations and should be made transparent in the module handbooks, as should the specific assessment methods.

7M07109 – Mechanical Engineering (Master)

1. The module catalogue should be revised to ensure that there is no redundancy in content and the information on ECTS-points and module names should be aligned with those in the curriculum.
2. The differentiation from the corresponding disciplines from the bachelor's programme and the further acquisition of competences should be made clearer in the module catalogue.
3. A stronger integration of the future topic of sustainability into the individual modules is recommended, as is close cooperation with the newly established German-Kazakh Institute for Sustainable Engineering.
4. Teaching methods should be adapted to the requirements of the examinations and should be made transparent in the module handbooks, as should the specific assessment methods.

6B07210 – Oil and Gas Engineering (Bachelor)

1. The university should continue with activities focused on energy transition.
2. Collaborations with foreign partners/ universities should be expanded.
3. The application of AI in the oil field, e.g. for preventive maintenance, should be included in the curriculum.

7M07210 – Oil and Gas Engineering (Master)

1. Collaborations with foreign partners/ universities should be expanded.
2. Topics such as hydrogen as an energy carrier, especially its handling and storage, sector coupling and smart energy management systems should be included in the curriculum.

8D07208 – Geology and Mineral Deposit Exploration (Doctorate)

1. Subjects such as petrochemistry, geology and mineralogy of rare metal deposits should be included in the curriculum.

2. Mineral and rock samples used for micro- and macroscopic studies should be classified and organised accordingly.
3. Cooperations with universities in Europe, East Asia and the USA should be expanded.

V Decisions of the Accreditation Commission of ACQUIN

Based on the evaluation report of the expert group and the statement of the Higher Education Institution, the Accreditation Commission of ACQUIN decided on the 12 September 2024:

General recommendations for all study programmes:

- Central regulatory documents such as quality policy regulations should be available in English on the homepage to support the enhancement of internationalization.
- A sustainability concept should be developed for the further development of the university. This concept should be implemented in all study programmes.
- The university should develop an international profile and a future-proof internationalization strategy and intensify international cooperation in terms of academic student and staff mobility.
- The university should develop a research strategy and find specific topics or niches whose research results are specifically reflected in the degree programmes. Research should be further promoted, e.g. through more research centres. The university should develop a spirit of innovation independent from the needs of the local industry.
- There should be more academic freedom in the design of study programmes, independent of the Kazakh Ministry of Education, in order to achieve more individualised study programme curricula.
- The number of PhD doctors among teaching staff should be increased to secure the scientific level of the degree programmes in the long term and thus increase the academic quality of the degree programmes.
- The proportion of female professors in university management should be increased and be continuously staffed. Incentives and opportunities should be created to enable a better balance between work and family life.
- Care should be taken to ensure that teaching staff have sufficient time for research in addition to teaching. The university staff as well as young graduates should be encouraged and given the space to conduct own research beyond the topics of KMG, including research stays abroad.
- Incentives should be created to encourage teaching staff and students to make greater use of academic mobility.
- A university-wide concept for the development of English language skills for teaching staff and students should be developed and implemented.
- All information on the university's website should be consistently available in three languages (in Kazakh, Russian and English). Changing the language should not refer to the main website of the faculty in the requested language but change the language of the currently shown page.
- The student section of the Faculty of Engineering should contain the programmes of all departments. These should be described in more detail.

- An updated information about the departments on the university's website should be available.

Transport, Transport Engineering and Technologies (Bachelor):

The study programme “Transport, Transport Engineering and Technologies” (Bachelor) is accredited without any conditions.

The accreditation is valid until 30 September 2031.

The following recommendations are given for the further development of the study programme:

- The university should modernise the equipment used for laboratory studies.
- The university should introduce more modern subjects related to artificial intelligence in transport and maintenance and service of electric transport.

Electric Power Engineering (Bachelor):

The study programme “Electric Power Engineering” (Bachelor) is accredited without any conditions.

The accreditation is valid until 30 September 2031.

- An additional math course should be offered either as an elective module or as a minor.
- The modules should be revised to ensure that there is no redundancy in content and that they are distinctively named according to the content being taught.

Life Safety and Environmental Protection (Bachelor):

The study programme “Life Safety and Environmental Protection” (Bachelor) is accredited without any conditions.

The accreditation is valid until 30 September 2031.

- The introduction of an additional course in the field of occupational health and safety in accordance with the group of the educational programme GOP B094 - "Sanitary and preventive measures" and the direction "Hygiene and occupational safety at work" of the classifier of the direction MS&HE RK should be considered.

Computer Engineering and Software (Bachelor):

The study programme “Computer Engineering and Software” (Bachelor) is accredited without any conditions.

The accreditation is valid until 30 September 2031.

- The curriculum should regularly be revisited and compared against international standards such as the ACM CS curriculum.
- Literature and learning material should be more based on standard textbooks in English or Russian.
- The content of courses should have a focus on concepts that have a longer life span than frequently changing specific technologies.
- The situation of high dropout rates should be the subject of continuous monitoring and appropriate measures should be taken.

Cadastre (Bachelor):

The study programme “Cadastre” (Bachelor) is accredited without any conditions.

The accreditation is valid until 30 September 2031.

- The curriculum and learning outcomes should be regularly reviewed and benchmarked against those of leading national and international universities.
- Disciplines such as Engineering Territory Development, Landscape Design and Inter-farm Land Management should be included in the curriculum.
- Major subjects, such as “GIS technologies in cadastre”, are recommended to be assigned to the graduating department of the educational programme.
- To deepen the practical orientation of the educational programme, the university should introduce dual training and open branches of departments in production.

Mechanical Engineering (Bachelor):

The study programme “Mechanical Engineering” (Bachelor) is accredited without any conditions.

The accreditation is valid until 30 September 2032.

- Modules such as Machine Vision, Simulation and Robotics should be included in the curriculum.
- A stronger integration of the future topic of sustainability into the individual modules is recommended, as is close cooperation with the newly established German-Kazakh Institute for Sustainable Engineering.
- Teaching methods should be adapted to the requirements of the examinations and should be made transparent in the module handbooks, as should the specific assessment methods.

Mechanical Engineering (Master):

The study programme “Mechanical Engineering” (Master) is accredited without any conditions.

The accreditation is valid until 30 September 2032.

- The module catalogue should be revised to ensure that there is no redundancy in content and the information on ECTS-points and module names should be aligned with those in the curriculum.
- The differentiation from the corresponding disciplines from the bachelor's programme and the further acquisition of competences should be made clearer in the module catalogue.
- A stronger integration of the future topic of sustainability into the individual modules is recommended, as is close cooperation with the newly established German-Kazakh Institute for Sustainable Engineering.
- Teaching methods should be adapted to the requirements of the examinations and should be made transparent in the module handbooks, as should the specific assessment methods.

Oil and Gas Engineering (Bachelor):

The study programme “Oil and Gas Engineering (Bachelor) is accredited without any conditions.

The accreditation is valid until 30 September 2032.

- The university should continue with activities focused on energy transition.
- Collaborations with foreign partners/ universities should be expanded.
- The application of AI in the oil field, e.g. for preventive maintenance, should be included in the curriculum.

Oil and Gas Engineering (Master):

The study programme Oil and Gas Engineering (Master) is accredited without any conditions.

The accreditation is valid until 30 September 2032.

- Collaborations with foreign partners/ universities should be expanded.
- Topics such as hydrogen as an energy carrier, especially its handling and storage, sector coupling and smart energy management systems should be included in the curriculum.

Geology and Mineral Deposit Exploration (PhD):

The study programme “Geology and Mineral Deposit Exploration” (PhD) is accredited without any conditions.

The accreditation is valid until 30 September 2032.

- Subjects such as petrochemistry, geology and mineralogy of rare metal deposits should be included in the curriculum.
- Mineral and rock samples used for micro- and macroscopic studies should be classified and organised accordingly.
- Cooperations with universities in Europe, East Asia and the USA should be expanded.