



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ  
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО  
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR  
ACCREDITATION AND RATING

# REPORT

on the results of the work of the external expert commission for  
evaluation for compliance with the requirements of standards for  
specialized accreditation of educational programs

7M07102 Chemical technology of organic substances

7M11201 Industrial and environmental safety

7M07106 Materials Science and Nanotechnology of Materials

KARAGANDA INDUSTRIAL UNIVERSITY

in the period from March 25 to March 27, 2024

**INDEPENDENT ACCREDITATION AND RATING AGENCY**  
**External Expert Commission**

*Addressed to  
Accreditation  
to the NAAR Council*



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***7M11201 Industrial and environmental safety***  
***7M07106 Materials Science and Nanotechnology of Materials***

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**in the period from March 25 to March 27, 2024.**

**2024 year**

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## **( I ) LIST OF SYMBOLS AND ABBREVIATIONS**

**IAAR** - Independent Agency for Accreditation and Rating  
**EEC** – external expert commission  
**KARIU** – Non-profit Joint Stock Company “Karaganda Industrial University”  
**TS** – Teaching staff  
**LeP** – Laboratory of Engineering Profile  
**EP** – Educational program  
**EMCD** – Educational and methodological complex of the discipline  
**CED** – Catalog of Elective Disciplines  
**QMS** – Quality Management System  
**AIS** – Automated Information System  
**STS** – Scientific and Technical Council  
**EM|C** – Educational and Methodological Council  
**MHE RK** – Ministry of Science and Higher Education of the Republic of Kazakhstan  
**EHEA** – Single Platform for Higher Education  
**BD** - Basic disciplines  
**PD** – Profile disciplines  
**GOSO RK** – State Compulsory Education Standard  
**IUP** – Individual Educational Plan  
**SC** – Standard Curriculum  
**OS** – Organization Standard  
**SRS** – Independent work of students  
**RMEB** – Republican Interuniversity Electronic Library  
**ECTS** – European Credit Transfer System  
**GPA** – Grade Point Average (grade point average)  
**MiM** – Department of Metallurgy and Materials Science  
**DCTE** – Department of Chemical Technology and Ecology  
**MOOC** – Massive Open Online Courses  
**DAS** – Department of Academic Support  
**DSHC** – Department of Science, Innovation and International Cooperation  
**RWMS** – Research work of a master's student  
**HTOS** – Chemical technology of organic substances  
**IES** – Industrial and Environmental Safety  
**MSCM** – Materials Science and Nanotechnology of Materials  
**GED** – General Education Disciplines  
**IWSUGT** – Independent work of students under the guidance of a teacher

## **(II) INTRODUCTION**

In accordance with order No. 31-24-OD of 2024 Independent Accreditation and Rating Agency from March 25 to 27, 2024, an external expert commission conducted assessment of compliance of educational programs 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials of Karaganda Industrial University with the standards of specialized accreditation of NAAR (dated June 16, 2020 No. 57-20-OD, sixth edition).

The report of the external expert commission (EEC) contains an assessment of the submitted educational programs according to the NAAR criteria, the EEC recommendations for further improvement of educational programs and the parameters of the profile of educational programs.

### **Composition of the EEC:**

1) **Chairman of the IAAR Commission** – Shcherbina Aleksey Vladimirovich, Candidate of Economic Sciences, Doctor of Philosophy, Associate Professor of the Federal State Autonomous Educational Institution of Higher Education “Southern Federal University” (Russian Federation) *Off-line participation*

2) **IAAR Expert** – Tsopa Natalia Vladimirovna, professor, Doctor of Economics, head of the department of technology, organization and management of construction, FGAOU VO "V.I. Vernadsky Crimean Federal University" (Russian Federation) *On-line participation*

3) **IAAR Expert** – Natalia Valentinovna Ryvkina, Master, Senior Lecturer, Department of Construction, L.N. Gumilyov Eurasian National University (Astana) *Off-line participation*

4) **IAAR expert** – Elubay Madeniet Azamatuly, Ph.D., Professor, Dean of the Faculty of Natural Sciences, Toraighyrov University (Republic of Kazakhstan) *Op-line participation*

5) **IAAR expert** – Zakirova Dilnara Ikramkhanova, PhD, Associate Professor of the Department of Tourism and Service, Turan University (Republic of Kazakhstan) *Off-line participation*

6) **IAAR Expert** – Nazhipkyzy Meruert, PhD, Associate Professor, Department of Chemical Physics and Materials Science, Al-Farabi Kazakh National University ( Republic of Kazakhstan ) *Off-line participation*

7) **IAAR Expert** – Mazdubai Asylkhan Vladimirovich, PhD, Associate Professor, Head of the Department of Mechanics and Oil and Gas Engineering, Toraighyrov University (Republic of Kazakhstan) *Op-line participation*

8) **IAAR Expert** – Dzholdasbaeva Gulnar Karimovna, Doctor of Economics, Professor, Head of the Department of Economics and Management, Almaty Technological University ( Republic of Kazakhstan ) *Op-line participation*

9) **IAAR Expert** – Kilibayev Erkebulan Omirlievich, Ph.D., Senior Lecturer, Department of Non-Ferrous Metallurgy, Corresponding Member of the International Academy of Informatization, L.N. Gumilyov Eurasian National University ( Republic of Kazakhstan ) *Offline participation*

10) **IAAR Expert, Employer** - Turebekova Zhanar Meiramovna, Head of the Department of Human Capital Development of the Chamber of Entrepreneurs of Almaty (Republic of Kazakhstan) *Op-line participation*

11) **IAAR Expert, employer** - Temirlan Khaleluly Madiyev, leading expert of the investment projects support department of the Chamber of Entrepreneurs of Almaty (Republic of Kazakhstan) *Op-line participation*

12) **IAAR Expert, with student** – Amanbaev Chingis Anasovich, 1st year master's student of the EP "Construction", member of the Alliance of Students of Kazakhstan, Eurasian National University named after L.N. Gumilyov (Astana) *Op-line participation*

13) **IAAR expert, student** – Yamaltdinov Bogdan Maratovich, 1st year master's student of the program "Chemical Technology of Organic Substances", member of the Alliance of Students of Kazakhstan, Toraighyrov University (Republic of Kazakhstan) *Op-line participation*

14) **IAAR expert , student** - Tynymbaeva Aruzhan Muratkyzy, master's student of the educational program "Materials Science and Technology of New Materials", Kazakh National Research Technical University named after K.I. Satpayev (Republic of Kazakhstan) *Op-line participation*

15) **IAAR expert , student** - Yerzhan Kulkubayev, 1st year master's student of the Economics program, member of the Alliance of Students of Kazakhstan, Almaty Humanitarian and Economic University (Republic of Kazakhstan) *Op-line participation*

16) **IAAR Coordinator** - Saidulaeva Malika Akh'yadovna, project manager of the Independent Agency for Accreditation and Rating (Republic of Kazakhstan) *Off - line participation*



### **(III) PRESENTATION OF THE EDUCATIONAL ORGANIZATION**

Non-profit joint-stock company "Karaganda Industrial University" (hereinafter referred to as KIU) has:

- state license for the right to conduct educational activities KZ86LAA00019217 dated October 31, 2020,

- certificate of accreditation as a subject of scientific and scientific-technical activity.

Certificate of state re-registration of a legal entity dated March 30, 2023, BIN 170340005857.

The mission of the university is to provide high-quality training of technical personnel based on advanced scientific achievements and high professional standards in the field of education.

Strategic Vision: Leading specialized industrial university in the Central Asian region, representing a center of innovative science and academic excellence in the field of engineering.

The university offers 25 bachelor's degree programs, 20 master's degree programs and 5 doctoral programs, in addition to joint, double-degree and innovative educational programs.

The structure of KarIU includes 3 faculties: "Metallurgy and Mechanical Engineering", "Power Engineering, Transport and Control Systems", "Economics and Construction", 10 departments, where 140 teachers work.

There are currently over 3,000 students enrolled, including international students from 11 countries.

The educational process is provided by a teaching staff of 125 teachers:

Doctors of Science – 8 people;

PhD doctors – 17 people;

Candidates of Science – 36 people;

Production interns – 17 people.

The full-time teachers include teaching staff with experience working at enterprises in the field of training specialists.

19 teachers have the title of "Best Teacher of the University of the Republic of Kazakhstan".

11 teachers have the title of "Honored Worker of Education of the Republic of Kazakhstan"

To carry out educational activities, KarIU has 6 educational and laboratory buildings with a total area of 44.01 thousand square meters, where classrooms, specialized rooms and laboratories, the university museum, the Center for Information Technology and Telecommunications, 20 computer classes are located. The university sports complex, with a total area of 2,300 square meters, includes 6 game halls and 2 open areas.

Educational programs 7M07102 - Chemical Technology of Organic Substances (CTOS) have been implemented at the Department of Chemical Technology and Ecology since 2008 (License number KZ86LAA00019217, license issue date October 30, 2020, order of the Chairman of the Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan dated October 29, 2020 No. 426. Subtype(s) of licensed activity: Postgraduate education, 7M071 - Engineering and engineering).

The educational program 7M11201 - Industrial and Environmental Safety has been implemented at the Department of Chemical Technology and Ecology since 2006 (License number KZ86LAA00019217, license issue date October 30, 2020, order of the Chairman of the Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan dated October 29, 2020 No. 426. Subtype(s) of licensed activity: Postgraduate education, 7M112 - Occupational Health and Safety).

The educational program 7M07106 Materials Science and Nanotechnology of Materials is implemented at the Department of Metallurgy and Materials Science (License number KZ86LAA00019217, license issue date October 30, 2020, order of the Chairman of the Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic

of Kazakhstan dated October 29, 2020 No. 426. Subtype(s) of licensed activity: Postgraduate education, 7M071 - Engineering and engineering).

In 2024 university entered V QS University Rankings by Region 2024:

- QS World University Rankings: Asia 2024 at positions #601-650
- QS Asia University Rankings 2024: Central Asia at #30

As the best technical university, Karaganda Industrial University was awarded the "IAAR EUR Technical University" Award in the International Ranking "IAAR Eurasian University Ranking (IAAR-EUR) - 2023".

In the ranking of the best technical universities in Kazakhstan in 2022, we took 7th place (in 2021 - 9th place).

#### **(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE**

International specialized accreditation of EP 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials of Karaganda Industrial University according to IAAR standards is carried out for the first time.

#### **(V) DESCRIPTION OF THE VISIT OF THE EEC**

The work of the EEC was carried out on the basis of the approved Program of the visit of the expert commission for specialized accreditation of educational programs of the Karaganda Industrial University in the period from March 25 to 27, 2024.

order to coordinate the work of the EEC 24.03.2024 An online introductory meeting was held, during which powers were distributed among the commission members, the schedule of the visit was clarified, and agreement was reached on the selection of examination methods.

In order to obtain objective information on the quality of educational programs and the entire infrastructure of the university, to clarify the content of self-assessment reports, meetings were held with the rector, vice-rectors of the university in areas of activity, heads of structural divisions, heads of departments, teachers, students, graduates, employers. A total of 55 representatives took part in the meetings (Table 1).

Table 1 – Information about the employees and students who took part in the meetings with the NAAR EEC:

<b>Participant category</b>	<b>Quantity</b>
Rector	1
Vice-Rector's building	3
Heads of structural divisions	14
Deans	3
Heads of Departments	7
Teachers	10
Students, master's students, doctoral students	7
Graduates	5
Employers	5
<b>Total</b>	<b>55</b>

During the visual inspection, the members of the EEC became familiar with the state of the material and technical base, visited the smelting room, the LIP "EMandN", pharmaceutical chemistry laboratories, the laboratory of physical and chemical methods of analysis, the laboratory of organic

synthesis, the chromatography laboratory, the assembly hall, the museum, the subscription hall, computer and lecture halls.

At the meetings of the NAAR EEC with the university's target groups, the mechanisms for implementing the university's policy were clarified and individual data presented in the university's self-assessment report were specified.

The members of the EEC visited the practice bases of the accredited programs: JSC Qarmet, the Institute of Public Health and Occupational Health of the NAO MUK, and EcoPremTechnology LLC.

The members of the EEC attended training sessions:

- in the discipline "Declaration of Industrial Safety" in the group PEiPB-23nm, 2nd year (winter admission), educational program 7M11201 "Industrial and Environmental Safety", teacher - PhD, associate professor of the Department of Chemical Technology and Ecology Chernysheva A.A. (room 301A);

- in the discipline "Patent Science" in the group HTOV-23nm, 2nd year (winter admission), educational program 7M07102 "Chemical technology of organic substances", teacher - PhD in Chemistry, Associate Professor of the Department of Chemical Technology and Ecology Gavva N.F. (room 315A);

In accordance with the accreditation procedure, a survey was conducted among 20 teachers and 6 first- and second-year students.

In order to confirm the information presented in the Self-Assessment Report, external experts requested and analyzed the university's working documentation. Along with this, the experts studied the university's online positioning through the official website of the university <https://tttu.edu.kz/>.

As part of the planned program, recommendations for improving the accredited educational programs of the Karaganda Industrial University, developed by the EEC based on the results of the examination, were presented at a meeting with the management on 27.03.2024.

## **(VI) COMPLIANCE WITH SPECIALISED ACCREDITATION STANDARDS**

### **6.1. Standard "Educational Program Management"**

- ✓ The university must demonstrate the development of the goal and strategy for the development of the educational program based on the analysis of external and internal factors with the broad involvement of various stakeholders.
- ✓ Quality assurance policy should reflect the relationship between research, teaching and learning.
- ✓ The university demonstrates the development of a quality assurance culture.
- ✓ Commitment to quality assurance must apply to all activities carried out by contractors and partners (outsourcing), including in the implementation of joint/dual degree education and academic mobility.
- ✓ The management of the educational institution ensures transparency in the development of the educational institution's development plan based on an analysis of its functioning, the actual positioning of the university and the focus of its activities on meeting the needs of students, the state, employers and other interested parties.
- ✓ The management of the educational program demonstrates the functioning of mechanisms for the formation and regular revision of the educational program development plan and monitoring of its implementation, assessment of the achievement of educational goals, compliance with the needs of students, employers and society, and decision-making aimed at the continuous improvement of the educational program.
- ✓ The leadership of the educational institution must involve representatives of stakeholder groups, including employers, students and teaching staff, in the formation of the educational institution development plan.
- ✓ The leadership of the educational institution must demonstrate the individuality and uniqueness of the educational institution's development plan, its consistency with national development priorities and the development strategy of the educational organization.
- ✓ The university must demonstrate a clear definition of those responsible for business processes within the EP, the distribution of job responsibilities of personnel, and the delineation of the functions of collegial bodies.
- ✓ The management of the EP ensures the coordination of the activities of all persons participating in the development and management of the EP and its continuous implementation, and also involves all interested persons in this process.
- ✓ The management of the EP must ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and the adoption of appropriate decisions.
- ✓ The management of the EP must implement risk management.
- ✓ The management of the educational program must ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegial bodies managing the educational program, as well as their representativeness in decision-making on issues of managing the educational program.
- ✓ The university must demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals.
- ✓ The leadership of the educational institution must demonstrate its openness and accessibility to students, teaching staff, employers and other interested parties.
- ✓ The management of the EP confirms completion of training in educational management programs.
- ✓ The management of the EP should ensure that the progress achieved since the last external quality assurance procedure is taken into account when preparing for the next procedure.

#### ***Evidential part***

The implementation and development of accredited educational programs is determined by the University's Mission, which is aimed at training competitive personnel of a new formation at all levels of higher education for the mining and metallurgical industry and contributing to the development of the innovative economy of the region and the country, as well as the Development Program of the NAO Karaganda Industrial University for 2023-2029.

The quality assurance policy of KAIU is reflected in the documents "Quality Policy", "Quality Goals", "Development Program of NAO "Karaganda Industrial University" for 2023-2029" ( approved by the Board of Directors of NAO "Karaganda Industrial University", minutes No. 9 dated 12/19/2023)

The University's mission, quality policy, quality objectives, and development program are aimed at meeting the needs of the state, society, sectors of the real economy, potential employers, and students.

The quality assurance policy for the implementation of educational programs is determined by documented quality objectives of the graduating departments, developed for each academic year. The quality objectives of the departments are developed in accordance with QMS StO II.6-01.01-2022 "Development of quality objectives and plans", which establishes the procedure for developing quality objectives and planning improvements to the quality management system.

To support the main business processes, the university has developed a set of internal regulatory documents regulating the implementation of educational programs - Academic Policy, Regulation on the procedure for developing a plan for the development of an educational program and the procedure for assessing the effectiveness of the implementation of an educational program, Regulation on the development of a graduate model for educational programs, Regulation on postgraduate education, Regulation on the additional educational program Minor ( Minor ), Regulation on the development of

modular educational programs, Student-centered learning policy, as well as other regulations and regulatory documents .

Regulatory documents define the format of educational documentation regulating the implementation of educational programs through work programs, educational and methodological complexes of disciplines, methodological manuals, test assignments, etc.

The Academic Policy of KarIU (approved by the decision of the Academic Council of the University , protocol No. 7, dated 02/25/2022 ) determines the procedure for organizing the educational process at the University for all levels of education. This document reflects the issues of registering students to attend classes, conducting current, midterm and final assessments, organizing the passage of students of all types of internships, assessing students' knowledge, rules for transfer, reinstatement, expulsion of students, final certification, etc.

KarIU systematically analyzes the implementation of educational programs in order to adjust their content and compliance of trained specialists with labor market requirements. Reports on the implementation of educational program development plans are included in the annual reports of departments with analysis, are considered at meetings twice a year, and the results of monitoring educational program development plans are considered at meetings of the University Academic Council. The results of the assessment of the effectiveness of the implementation of educational program development stages are used to adjust and further develop these educational programs.

The management of the accredited educational programs is carried out by the Academic Committee. The members of the Academic Committee include representatives of employers, students, heads of departments, teachers who are directly involved in the development and updating of the MEP, discussion and approval of the catalog of elective disciplines, syllabuses, and teaching and methodological documents. For example, the members of the Academic Committee are Cand. Sc. (Eng.), Head of the Laboratory of Metallurgy and Defectology of the Central Institute of Analytical Control of JSC QARMET (formerly JSC ArcelorMittal Temirtau, JSC AMT) E. N. Reshotkina, Deputy General Director for Production of Tau-Ken Temir LLP S. V. Korobko, Leading Specialist of the Laboratory of Metal Science and Defectoscopy of the Center for Analytical Control of JSC Qarmet, PhD G. A. Ul'eva, Head of the Laboratory of Ferroalloys and Recovery Processes of the Chemical-Metallurgical Institute named after Zh. Abisheva Makhambetov E.N., Head of the Scientific and Production Department of the Scientific and Production Department of Phytochemistry, Ph.D. in Chemistry Mukhametzhanova G.M., Kasimov A.T., Head of the Laboratory of Radiological Research, Electromagnetic Fields and Other Physical Factors of the Branch of the State Enterprise for the Protection of Humanities “National Center of Expertise” of the Committee for Sanitary and Epidemiological Control of the Ministry of Health of the Republic of Kazakhstan for the Karaganda Region, foreign partners Prof. Dr. Istanbul Technical University , Faculty of Chemical and Metallurgy Engineering , Metallurgy and Materials Engineering Department , Maslak , Istanbul , Turkey Onuralp Y Ü CEL , Associate Professor, Doctor of Gazi University, Faculty of Natural Sciences, Department of Chemistry Ertan Yildirim, as well as master's student gr. MiNM-22nm Epaneshkina A., master's student gr. HTOV-23nm Akmalova I. and Temir G.

All EPs, catalogs of elective courses for recent years, and information from teaching staff are posted in the public domain on the university website and are available to students, their parents, applicants, and other interested parties.

Based on the results of the analysis of the existing and submitted documentation, the necessary information, personnel, financial and material resources, as well as regulatory and legal documentation, ensuring the implementation of educational programs are available for the management of the educational program.

### ***Analytical part***

The university systematically analyzes current educational programs in order to adjust their content and compliance of the graduates prepared with the requirements of the regional labor market, as well as with the requests of employers. Reports on the implementation of EP development plans are

included in the annual reports of departments with critical analysis, are reviewed at meetings twice a year, and the results of monitoring the EP development plans are reviewed at meetings of the University Academic Council. The results of the assessment of the effectiveness of the implementation of the EP development stages are used to adjust and further develop the EP. EP development plans are adjusted as necessary.

At the end of each academic year, the department, taking into account the needs, prepares an application for the necessary information and other material resources, updates the laboratory development programs, and the academic policy department assigns the required number of classrooms and laboratories to the EP.

At the same time, the uniqueness and advantage of each educational program submitted for accreditation over similar educational programs of other universities has not been sufficiently confirmed; this opinion was confirmed during interviews with the heads of educational programs and during the analysis of the submitted documentation.

It is worth noting that the content of the planned activities in the development plans of the EP is standard, without any differences in implementation from other OPs.

In order to manage risks and improve the efficiency of the internal university quality assurance system, the Development Program of the NAO "Karaganda Industrial University" has been developed and is being used. The risks are described in the University Development Program.

During the analysis of the self-assessment report, conversations with the leadership of the educational institution and heads of structural divisions, and familiarization with internal documents, the leadership of the educational institution was unable to document the existence of a connection between scientific research, teaching, and learning.

According to the results of the survey, the level of accessibility of the university management among teachers: "very good" - 60.9%, "good" - 39.1%; the level of feedback from the teaching staff to the management: "very good" - 41.3%, "good" - 58.7%; how satisfied are you with the attitude of the university management towards you: completely satisfied - 79.2%, partially satisfied - 20.8%.

***Strengths/best practices for the educational programs "7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials":***

- According to this Standard, the OPs do not have any strong points.

***Recommendations for the educational program "7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials":***

- The leadership of the EP shall carry out systematic work to define, update and formulate the individuality and uniqueness of educational programs in accordance with the national priorities for the development of the country's economy and the development strategy of the Karaganda region. Deadline - by the beginning of the 2024-2025 academic year.

***Conclusions of the EEC based on the criteria:***

According to the standard "Educational Program Management", educational programs 7M07102 Chemical Technology of Organic Substances, 7M11201 Industrial and Environmental Safety, 7M07106 Materials Science and Nanotechnology of Materials have 17 satisfactory positions.

## **6. 2 . Standard "Information Management and Reporting"**

✓ The university must demonstrate the development of the goal and strategy for the development of the educational program based on the analysis of external and internal. The university must ensure the functioning of the system for collecting, analyzing and managing information based on modern information and communication technologies and software.

✓ The OP's management demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system.

✓ The management of the EP demonstrates the existence of a reporting system reflecting the activities of all structural divisions and departments within the EP, including an assessment of their performance.

- ✓ The university must determine the frequency, forms and methods of assessing the management of the educational institution, the activities of collegial bodies and structural divisions, and senior management.
- ✓ The university must demonstrate a mechanism for ensuring the protection of information, including the identification of persons responsible for the accuracy and timeliness of information analysis and the provision of data.
- ✓ The university demonstrates the involvement of students, employees and faculty in the processes of collecting and analyzing information, as well as making decisions based on it.
- ✓ The leadership of the educational institution must demonstrate the existence of mechanisms for communication with students, employees and other stakeholders, including conflict resolution.
- ✓ The university must ensure that the degree of satisfaction of the needs of students, faculty and staff within the framework of the EP is measured and demonstrate evidence of the elimination of identified deficiencies.
- ✓ The university must evaluate the effectiveness and efficiency of activities in the context of the educational program.
- ✓ The information collected and analyzed by the university within the framework of the EP must take into account:
  - ✓ key performance indicators;
  - ✓ dynamics of the student contingent in terms of forms and types;
  - ✓ academic performance, student achievement and dropout;
  - ✓ satisfaction of students with the implementation of the educational program and the quality of education at the university;
  - ✓ availability of educational resources and support systems for learners;
  - ✓ employment and career growth of graduates.
- ✓ Students, teaching staff and personnel must provide documentary evidence of their consent to the processing of personal data .
- ✓ The management of the EP should facilitate the provision of necessary information in the relevant fields of science .

### **Evidential part**

Information about the activities of KariU in implementing the EP is published on the university website (in three languages - Kazakh, Russian and English), local and national media, social networks. The official website of the university contains general information about the structure of the University, its Mission and Development Plan, the history of the university, licenses for educational activities, a list of specialties, regulatory documents used to conduct educational and scientific activities, you can get acquainted with information about events in the scientific, educational, social life of the university, as well as get information on educational programs, information about the departments implementing the EP, about the studied compulsory and elective disciplines (CED), about the competencies received by the graduate, about the teaching staff, etc.

Information management at the university is the activity of forming, processing, transferring and using information within the organization and outside it. Provision of all interested parties with complete, impartial, objective, accurate and accessible information about the activities of the university is carried out in accordance with the document QMS P-4-27-2022 "Regulations on informing the public" (approved on 11.01.2022). Information management processes within KIU are regulated by the organization standard QMS StO II.7-04.02-2023 "Internal informing".

In order to improve the quality of educational services provided and ensure effective information support for the management processes of the education system, as well as the management of the educational process of the university, the AIS "PLATONUS" and AIS MOODLE systems are used , which allow for comprehensive automation of the educational process and include a complete database of students at all levels and forms of training, teaching staff and other employees united into user groups with individual rights. The automated system allows for the management of the academic calendar, the formation of individual plans, the placement of teaching and methodological documents, the formation of examination reports, current monitoring of students, etc.

To ensure the protection of information, access to the AIS "Platonus" is carried out through a login and password issued by the Registrar's Office. Requirements for information security management, including the storage, use and protection of personal data of students and university employees, are defined in documents such as the "Instructions for Ensuring the Security of Information of NAO "KarIU" and in the document QMS P4-27-2022 "Regulations on Informing the Public" (approved on 11.01.2022)

All university buildings have access to a wireless Wi-Fi network with Internet access.

All information about scientific research and achievements of the department's teaching staff is posted on the department's website.

Information support for scientific research is provided by open access to scientometric databases such as Scopus and Web of Science, and there is also an agreement with the Republican Interuniversity Electronic Library (agreement No. 08.2-06/86 dated 02/27/2024).

The university library has an alphabetical, systematic, alphabetical-service, and electronic catalogue – KABIS.

The management of the EP adheres to regulatory documents to resolve conflicts, communicate with students, employees and other interested parties. According to the Regulation on handling student complaints (approved on August 27, 2021), in the event of problems related to the educational process, a master's student can also contact the heads of departments and deans.

Risk identification and forecasting are carried out based on information analysis and are carried out in accordance with the requirements of the QMS document StO II.6-01.02-2022 "Actions in relation to risks". Each development plan of the EP contains a section "Measures to reduce the impact of risks for the OP".

Feedback from employers, questionnaires, and surveys are used as sources of information on consumer satisfaction with the level of educational services. Information obtained from these sources of information is used in the analysis by the university management and in the implementation of corrective actions.

### ***Analytical part***

Analyzing compliance with the requirements of the standard "Information Management and Reporting" for the accredited educational institutions of the cluster, the commission notes that the university has an information management and reporting system in place.

In KarIU, information management and reporting is ensured through the use of modern information and communication technologies and software in accordance with such QMS documents as P-4-27-2022 "Regulations on informing the public" (approved on 11.01.2022) and StO II.7-04.02-2021 "Internal informing".

The effectiveness and efficiency of the departments' activities within the framework of the EP implementation are reflected in annual reports on the main types of activities: educational and methodological work, research, educational work, etc., considered at meetings of the department, the Faculty Council, the Educational and Methodological Council, the Scientific and Technical Council, and the Academic Council. The effectiveness of educational programs is assessed annually according to 20 criteria in accordance with QMS P4-57-2022 "Regulations on the procedure for developing a development plan for an educational program and the procedure for assessing the effectiveness of the implementation of an educational program" (approved on 11.01.2022).

No evidence was provided on the decision-making process to improve educational programs based on an analysis of information provided by students, faculty, and university employees.

The university ensures measurement of the degree of satisfaction of the needs of the teaching staff, personnel and students within the framework of the EP. To determine the degree of satisfaction of the needs of the teaching staff, personnel and students within the framework of the EP, a survey is provided, which is carried out 2 times a year. The survey and analysis of their results are regulated by the documents QMS P-27-2-2021 "Regulations on the survey to monitor the quality of educational, training and research processes in NAO Karaganda Industrial University" (approved on August 27, 2021) and QMS StO II.8-02.01-2021 "Processes related to consumers".

However, no information is provided on the measures taken to improve educational activities based on the survey results.

During the EEC visit, based on the results of the survey, the students provided the following answers:

- Rate how satisfied you are with the availability and quality of Internet resources: completely satisfied – 83.3%,
- Rate how satisfied you are with informing students about courses, educational programs and the academic degree they receive: completely satisfied – 91.7%.

### ***Strengths/best practices for the educational programs "7M07102 Chemical technology of***

***organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- the AIS "Platonus" and AIS MOODLE for the system of collection, analysis and management of information, ensuring automation of educational activities and ensuring the quality of implementation of the educational program;

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials” :***

- The management of the OVPO, based on the results of the survey of students and employees on the degree of their satisfaction with the educational activities of the university, shall ensure measures to eliminate the identified deficiencies. Duration - permanent.

- The management of the educational institution shall systematically review educational programs based on the proposals of students and teaching staff, as well as taking into account the recommendations of employers. Duration - permanent.

***Conclusions of the EEC based on the criteria:***

According to the standard “Information Management and Reporting”, educational programs 7M07102 Chemical Technology of Organic Substances, 7M11201 Industrial and Environmental Safety, 7M07106 Materials Science and Nanotechnology of Materials have 1 strong position, 15 satisfactory positions, 1 position requires improvement.



### 6.3. Standard "Development and approval of the educational program"

- ✓ The university must demonstrate the existence of a documented procedure for developing the EP and its approval at the institutional level.
- ✓ The university must demonstrate the compliance of the developed educational program with the established goals and planned learning outcomes.
- ✓ The leadership of the educational institution must determine the influence of disciplines and professional practices on the formation of learning outcomes.
- ✓ The university demonstrates the presence of a model of a graduate of the educational program, describing the learning outcomes and personal qualities.
- ✓ The qualification awarded upon completion of the EP must be clearly defined, explained and correspond to a specified level of the NQF, QF - EHEA.
- ✓ The management of the EP must demonstrate the modular structure of the programme based on ECTS, ensure that the structure of the content of the EP corresponds to the set objectives with a focus on achieving the planned learning outcomes for each graduate.
- ✓ The management of the educational institution must ensure that the content of academic disciplines and learning outcomes correspond to each other and to the level of education (bachelor's, master's, doctoral).
- ✓ The management of the EP must demonstrate that external examinations of the EP have been carried out.
- ✓ The management of the educational program must provide evidence of the participation of students, faculty and other stakeholders in the development and quality assurance of the educational program.
- ✓ The management of the educational program must demonstrate the uniqueness of the educational program and its positioning in the educational market (regional/national/international).
- ✓ An important factor is the ability to prepare students for professional certification.
- ✓ An important factor is the presence of joint and/or double degree programs with foreign universities.

#### **Evidential part**

The development and approval of educational programs at the university is carried out in accordance with the provisions of regulatory legal acts in the field of higher and postgraduate education, as well as the documentation developed by the university to ensure the implementation of the directions of the University Development Plan. The methods and mechanisms for managing the process of developing educational programs are described in QMS StOI.8-03.01-2021 "Design and Development of Educational Services" and QMS P 4-25-1-2021 "Regulations on the Development of Modular Educational Programs" (approved on August 31, 2023).

The structure of the accredited educational programs complies with the requirements set out in the Order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152 "On approval of the Rules for organizing the educational process using credit technology of education and the State Compulsory Standard of Higher and Postgraduate Education (Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated July 20, 2022 No. 2., Appendix 2). Based on the strategic documents of the university, the main goals and strategic directions for the development of the accredited educational programs are defined, ensuring that the educational program complies with the established goals.

Accredited educational programs are provided with educational and methodological documentation in accordance with the requirements of the Ministry of Higher Education of the Republic of Kazakhstan: state compulsory educational standards; standard and working curricula for specialties; standard and working curricula for disciplines.

During the study of self-assessment reports and the study of the university website, the approved modular educational programs were studied, which were developed jointly with stakeholders and agreed upon by employers (ArcelorMittal Temirtau JSC, Reshotkina E.A., IOSU RK LLP, Zhakina A.K., MNPKH Fitochemistry JSC, Tuleuov B.I., and others).

The educational programs submitted for accreditation have undergone external review. Thus, external examination at the stage of development of educational programs was carried out with the involvement of leading specialists from foreign universities and scientific organizations (Head of the Department of Chemical Technology of the Altai State University, Doctor of Chemical Sciences, Professor V.V. Konyshin, Associate Professor of Gazi University Ertan Yildirim, Professor of Istanbul Technical University Onulap Yugel).

In addition, these EPs underwent external examination at the Bologna Process and Academic Mobility Center of the Ministry of Science and Higher Education of the Republic of Kazakhstan and, based on the results of the examination, were included in the Register of Educational Programs of Higher and Postgraduate Education (EPHE).

The quality assessment of educational programs is carried out on the basis of an analysis of curricula, a catalog of elective disciplines, schedules, individual plans for students, and internal regulatory documents governing the implementation of educational programs.

The management of the accredited educational institutions determines the influence of disciplines and professional practices on the formation of learning outcomes. The educational programs of the accredited educational institutions contain components for preparation for professional activity, developing key qualifications, intellectual and academic skills (the BD and PD cycle), as well as components of the practical component of training.

The formation of individual educational trajectories for students is carried out with the help of an advisor for each academic year based on the State Educational Standard of the Republic of Kazakhstan, standard educational programs, and individual educational programs.

To organize scientific internships for master's students, the university cooperates with the NAO "Karaganda Technical University named after Abylkas Saginov", the NAO "Karaganda University named after Academician E.A. Buketov", the Altai State University named after I.I. Polzunov (Memorandum of Cooperation 2019),

The practice bases for the EP are Karaganda Pharmaceutical Plant LLP (Karaganda), Phytochemistry Scientific and Practical Plant (Karaganda, dated January 31, 2022), branch of the National Center for Expertise of the Sanitary and Epidemiological Control Committee of the Ministry of Health of the Republic of Kazakhstan for the Karaganda Region and the National Center for Expertise of the Sanitary and Epidemiological Control of the Ministry of Health of the Republic of Kazakhstan for the Karaganda Region and the Republican Scientific and Practical Enterprise on the Right of Economic Management (No. 2/23 dated March 29, 2023), the Republican Research Center for Labor Protection of the Ministry of Labor and Social Protection of the Republic of Kazakhstan, QARMET JSC (ArcelorMittal Temirtau JSC, No. 23-15 dated October 3, 2023), Temirtau Electrometallurgical Plant JSC, Kazakhmys Corporation LLP (No. P1100213191 dated 03/24/2023), EcoPromTechnology LLP (No. 2/23 dated 04/03/2023),

### ***Analytical part***

The EEC experts note that for the accredited educational programs, representatives of employers and students were involved as developers, and feedback was received from foreign partners. However, the involvement of external experts in reviewing the educational programs has not been proven.

When developing and updating the EP, the following regulatory documents are used: State Educational Standards (State Educational Standards of Higher Professional Education), regulatory acts of the Republic of Kazakhstan and the needs of the labor market, professional standards.

When determining the contribution of disciplines to the process of determining learning outcomes, recommendations and proposals from employers are taken into account. The management of the EP should develop a mechanism for revising the content and structure of the EP in such a way that the learning outcomes and competencies of master's students are formed taking into account changes in the labor market, employer requirements and the social demand of society.

There is no work to certify the professional achievements of students, which certifies that the graduate has competencies recognized in the professional community as necessary for the performance of certain professional functions.

The self-assessment report for educational programmes provides information that the modular educational programme is based on a graduate model developed at the university, which has undergone expert assessment by employers and consumers.

During the meeting of the EEC with target groups (graduates and employers), it was noted that it is necessary to introduce a more practice-oriented approach, to conduct not only summer professional practices at the practice bases and department branches, but also to conduct practical, laboratory and lecture classes within the framework of full-fledged disciplines, with the preparation of official schedules at the bases of enterprises (not only guest or excursion classes).

The University is actively working with foreign partner universities from near and far abroad, however, for the accredited educational programs, there is no documentary evidence of the existence or implementation of joint and/or double-degree educational programs for the accredited educational programs.

In general, I would like to note that the leadership of the EP and the faculty are ready to begin work on practice-oriented training, which will allow students to obtain additional professional competencies that will enable students to be more in demand and competitive after graduation due to the various qualifications obtained during their studies.

A survey of students conducted during the visit of the IAAR EEC showed that:

- By informing the requirements for successfully completing this educational program (specialty), 100% of students are fully satisfied;
- 83.3% of students are completely satisfied with the existing scientific laboratories;
- 91.73% of students are completely satisfied with the existing computer classes;
- Overall, 100% of students are completely satisfied with the quality of teaching.

***Strengths/best practices for the educational programs “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- according to this Standard, the OPs do not have any strengths.

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- The management of the educational program must include courses in the educational program to prepare students for professional certification, including the recognition of the results of informal learning. Deadline: 31.03.2025.

- The heads of the educational programs shall begin work on the possibility of opening joint and/or double-degree educational programs with foreign partner universities. Deadline: 30.12.2024.

***Conclusions of the EEC based on the criteria:***

According to the standard “Development and approval of the educational program”, educational programs 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials have 10 satisfactory positions, position 2 requires improvement.

#### 6. 4 . Standard "Continuous monitoring and periodic evaluation of educational programs"

- ✓ The university must ensure a revision of the structure and content of the educational program, taking into account changes in the labor market, employer requirements and the social demands of society.
- ✓ The university must demonstrate the existence of a documented procedure for monitoring and periodic evaluation to achieve the objectives of the EP and continuously improve the EP.
- ✓ Monitoring and periodic evaluation of the EP should consider:
  - ✓ the content of the program in the context of the latest achievements of science and technology in a specific discipline;
  - ✓ changes in the needs of society and the professional environment;
  - ✓ workload, academic performance and graduation of students;
  - ✓ the effectiveness of student assessment procedures;
  - ✓ needs and level of satisfaction of students;
  - ✓ compliance of the educational environment and the activities of support services with the objectives of the educational program.
- ✓ The management of the EP must publish information about changes to the OP, inform interested parties about any planned or undertaken actions within the OP.
- ✓ Support services should identify the needs of different groups of students and their level of satisfaction with the organization of learning, teaching, assessment, and mastery of the educational program as a whole.

#### **Evidential part**

Ensuring and continuously improving the quality of educational programs is one of the main tasks of the department, faculty and the entire university as a whole. Internal evaluation of the EP is carried out at the levels of: the Department of Metallurgy and Materials Science, the Department of Chemical Technology and Ecology, the Academic Committee, the Council of the Faculty of Metallurgy and Mechanical Engineering and the University, the Academic Council of the University.

The procedure for monitoring and periodic evaluation of the educational program at the university is carried out on the basis of internal documents of the QMS: QMS P 4-25-1-2021 "Regulations on the development of modular educational programs" (approved on August 31, 2023), QMS P-27-2-2021 "Regulations on conducting a survey to monitor the quality of educational, upbringing and research processes at the Karaganda Industrial University" (approved on August 27, 2021), QMS P4 - 57 - 2022 "Regulations on the procedure for developing a plan for the development of an educational program and a procedure for assessing the effectiveness of the implementation of an educational program" (approved on January 11, 2022).

The University ensures the participation of students, potential employers and others stakeholders in the evaluation and revision of educational programs. The Academic Committee includes faculty, teachers and representatives of employers. The composition of the Academic Committee is publicly available and posted on the university website, and the submitted MEPs contain signatures on the agreement of interested parties.

The internal documents specify the activities and grounds for revising the EP, which was also confirmed during the interview with the target groups. Revision is carried out in the following and other cases: approval of new standard curricula for specialties; introduction of new professional standards; proposals from potential employers, formed based on the results of a survey or joint events with graduating departments; recommendations from representatives of practice bases; results of research activities of the university's teaching staff in the field of special sciences and innovative research of accredited laboratories; changes in regulatory requirements for the development of the EP, etc.

To determine the level of satisfaction of internal consumers, which is carried out by the Department of Educational Work and Youth Policy (DEWYP), a survey of interested parties of the university is conducted annually

To monitor the academic performance of master's students, the following control activities are provided: current control, midterm control, midterm certification/final control, final certification, which is carried out in accordance with the rules of the Ministry of Education and Science of the Republic of Kazakhstan and internal regulatory documents QMS P 4-34-2021 Regulation on the organization of current and midterm controls, midterm certification and assessment of students' knowledge (approved on August 27, 2021) and QMS P4-35-2022 Regulation on the procedure for organizing and conducting final certification of students (approved on January 28, 2022).

The achievement of the goals and objectives of each type of practice are clearly established in the practice programs and the internal document QMS P 4-28-2021 "Regulations on the procedure for

organizing and conducting professional practices and determining organizations as practice bases” (approved on August 27, 2021) and QMS P 4-54-2022 “Regulations on the procedure for organizing and conducting pedagogical practice of master's and doctoral students” (approved on January 28, 2022).

The objects for making changes to the EP are working curricula, catalogs of elective disciplines, curricula, etc. The procedure for making changes to them is regulated by internal documents of the QMS StO II.8-03.01-2021 "Design and development of educational services", QMS P 4-25-1-2021 "Regulations on the development of modular educational programs" (approved on August 31, 2023), QMS StO II.8-02.02-2021 "Management of the educational process".

The academic workload, academic performance and graduation of students comply with regulatory requirements and the State Educational Standard. Based on the data of continuous monitoring, a report on the results of sessions is analyzed and generated. This issue is periodically considered at meetings of departments, the Educational and Methodological Council, and the Academic Council of the University to take the necessary measures to improve academic performance and achieve the desired results.

Every year, a survey of students is conducted to assess the teaching activities of the teaching staff; the analysis of the survey is carried out at department meetings. Based on the results of the discussion, the management of the educational institution makes a decision on corrective actions.

The management of the university, faculty, and department demonstrated their accessibility to students, faculty, and employers on any issues.

### ***Analytical part***

The process of monitoring, evaluating and improving the educational program is the responsibility of the head of the department and is controlled by the Educational and Methodological Council.

The EEC notes that the university ensures the revision of the content and structure of educational programs with the participation of employers. The Commission draws attention to the need to use various methods to identify changes in the labor market. In particular, it is recommended to conduct a labor market analysis in order to take into account the expected learning outcomes in the content of the EP, the possibility of risks in the implementation of the EP.

Students, faculty, and employers are not fully informed about changes to the EP, which was revealed during interviews with interested parties. Such information is not published on the university website either. In this regard, the commission believes that it is necessary to ensure constant and timely informing of students, faculty, and employers through various communication channels about all changes made to the EP.

The departments have accounts on social networks (Instagram, Facebook), through which they inform all interested parties about events held in the departments and at the university.

The university management needs to pay attention to the results of the faculty survey on the following points:

- How much attention does the educational institution's management pay to the content of the educational program: very good – 45.7%, good – 54.3%.
- To what extent does the content of the educational program meet your scientific and professional interests and needs: very good – 63%, good – 37%.
- Assess to what extent the educational program, in terms of content and quality of implementation, meets the expectations of the labor market and employers: very good – 37%, good – 63%.

***Strengths/best practices for the educational programs “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- according to this Standard, the OPs do not have any strong points.

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- In order to promptly inform interested parties (students, stakeholders), the EP management must annually post detailed information on the university website related to changes in the structure and/or content of the EP, the graduate model, etc. about the decisions made in terms of taking into account their proposals and wishes. Duration - permanent.

***Conclusions of the EEC based on the criteria:***

According to the standard “Continuous monitoring and periodic assessment of educational programs”, educational programs 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials have 10 satisfactory positions.



## 6.5 . Standard " Student -centered learning, teaching and assessment of academic performance"

- ✓ The leadership of the educational institution must ensure respect and attention to different groups of students and their needs, providing them with flexible learning paths.
- ✓ The management of the educational program must ensure teaching based on modern achievements of world science and practice in the field of study, the use of various modern teaching methods and assessment of learning outcomes that ensure the achievement of the educational program's goals, including competencies and skills for performing scientific work at the required level.
- ✓ The management of the educational program must determine the mechanisms for distributing the students' academic workload between theory and practice within the educational program, ensuring that each graduate masters the content and achieves the educational program's goals.
- ✓ An important factor is the availability of our own research in the field of teaching methods for the EP disciplines.
- ✓ The university must ensure that the procedures for assessing learning outcomes correspond to the planned results and objectives of the educational program.
- ✓ The university must ensure consistency, transparency and objectivity of the mechanism for assessing the learning outcomes of the educational program, and publication of criteria and assessment methods in advance.
- ✓ Assessors must be proficient in modern methods of assessing learning outcomes and regularly improve their skills in this area.
- ✓ The leadership of the educational institution must demonstrate the existence of a feedback system on the use of various teaching methods and assessment of learning outcomes.
- ✓ The leadership of the EP should demonstrate support for learner autonomy while providing guidance and assistance from the teacher.
- ✓ The management of the educational institution must demonstrate that there is a procedure for responding to student complaints.

### **Evidential part**

In general, the university practices student-centered education, taking into account the personal characteristics and needs of students.

The management of the educational program provides equal opportunities for students, regardless of the language of instruction, to form an individual program aimed at developing professional competence. Students receive information about the possibilities of forming an individual educational trajectory, as well as assistance in its implementation through the AIS "Platonus" system, as well as with the help of an adviser. According to the accredited educational programs, the educational process is implemented in the context of the languages of instruction (the state language and the Russian language). Academic disciplines are provided with **EMCD**, methodological guidelines for SRS, SRS, laboratory work.

During the training process at KariU, surveys and meetings with the management are conducted to identify the needs of students. Students can also contact the heads of departments and the dean's office with their needs, for example, regarding the provision of a place in the KariU dormitories.

The organization of the educational process for individuals with special educational needs is regulated by the "Academic Policy" of Karaganda Industrial University (approved No. 7 of 02/25/2022) and QMS P 4-50-2021 "Regulations on the organization of inclusive education for individuals with disabilities in NAO Karaganda Industrial University" (approved on 06/25/2021).

Tracking the satisfaction of students and teaching staff with methodological innovations is carried out through the analysis of the results of a survey conducted in accordance with QMS P-27-2-2021 "Regulations on conducting a survey to monitor the quality of educational, upbringing and research processes at NAO Karaganda Industrial University" (approved on August 27, 2021) .

During the academic year, the schedule includes hours for independent professional development, departments have schedules for faculty consultations, additional information is provided in the syllabuses for the disciplines, and students can also contact the teacher by e-mail.

On the "Library" page, students can use the Republican Interuniversity Electronic Library (RIEL), "Scopus", "Web of Science", and the Digital Library. They have access to a reading room, computer rooms of the department and the university as a whole, with Internet access. At the same time, the master's student is provided with the necessary guidance and support from teachers of disciplines, the head of the department, and educational and support staff. Much attention is paid to issues of mutual respect between students and teachers. The principles of relationships between the university staff are regulated by the "Code of Corporate Ethics of NAO KariU".

Students have free access to information resources and library collections, to educational and scientific literature, information bases, including international data sources located in electronic libraries.

KarIU has procedures for responding to student complaints. The procedure for submitting applications expressing requests and complaints on various issues is set out in QMS P 4.18 -2021 "Regulations on handling student complaints" (approved on 08/24/2021). Student complaints are accepted by deans, considered at meetings of the Council of Curators, at meetings, conferences of various levels, at meetings of students with the university administration.

During the online visit to the practice bases, the practice managers from the enterprise noted a sufficient theoretical and practical level of preparation, interest in obtaining additional practical knowledge, studying in accredited educational programs.

In the process of training, the criterion generally accepted in world practice is used scale of letter and digital designations, reflecting the mechanism of implementation credit transfer based on the ECTS credit system. In accordance with this The scale is used to assign grades for oral and written exams. The student's progress is tracked from the 1st year to the end of the course. To determine the student's progress, the GPA transfer score is used, according to the "Regulations on the implementation of the integrated GPA of students at the NAO "Karaganda Industrial University" (approved on August 31, 2023). The student can find out his GPA in the AIS "Platonus".

As part of internal mobility, master's students of the educational program "Chemical Technology of Organic Substances" undergo training at the NAO "Karaganda Technical University named after Abylkas Saginov" (order No. 13-03-02 / 15m dated 01/19/2024).

The implementation of the principles of academic honesty is ensured by the "Regulations on ensuring academic integrity in the NAO "Karaganda Industrial University" (approved on November 26, 2021).

### ***Analytical part***

An analysis of the standard "Student-centered learning, teaching and assessment of academic performance" showed that modern teaching technologies are used in the accredited educational programs.

At the same time, the members of the EEC note that the departments of Metallurgy and Materials Science and Chemical Engineering and Ecology have a low share of their own research in the field of teaching methods for the educational disciplines of the educational program.

The university carries out systematic work to monitor the academic performance of students. The mechanism for assessing the knowledge, skills and qualities acquired by students during their studies is reflected in QMS P 4-34-2021 Regulation on the organization of current and midterm controls, midterm assessment and assessment of students' knowledge (approved on 08/27/2021) and QMS P4-35-2022 Regulation on the procedure for organizing and conducting final assessment of students (approved on 01/28/2022).

The teaching staff use traditional and interactive teaching methods in the educational process: information technologies (electronic textbooks, MOOC courses); educational programs: the PLATONUS program; Internet service, blended learning, group work, small group work method, dialogue seminar, etc. However, during the interview with the teaching staff, there was no confirmation of the use of innovative teaching methods.

As part of the preparation of the final work (master's dissertations), students are engaged in scientific research. However, the departments do not provide documentary evidence of students' participation in funded research and development, in business contract projects.

The survey conducted during the EEC visit showed that 91.7% of students were fully satisfied with the quality of the educational programs in the EP, 100% of students were fully satisfied with the quality of teaching in general. Full agreement with the objectivity of assessing knowledge, skills and other academic achievements was expressed by 75%, and 83.3% of students responded that the Teacher objectively assesses students' achievements.

### ***Strengths/best practices for the educational programs "7M07102 Chemical technology of***

*organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:*

- according to this Standard, the OPs do not have any strengths.

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- The leadership of the educational institution must organize the conduct and development of its own research on the teaching methods of the educational institution's disciplines. Deadline: 31.03.2025.
- The management of the educational program should actively involve students of the accredited educational programs in the implementation of research and creative work with participation in grant funding, social projects, Erasmus + programs, as well as various creative competitions. Duration - permanent.

***Conclusions of the EEC based on the criteria:***

According to the standard “Student-centered learning, teaching and assessment of academic performance”, educational programs 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials have 10 satisfactory positions.



## 6. 6 . Standard "Students"

- ✓ *The university must demonstrate a policy for the formation of a contingent of students and ensure transparency and publication of procedures regulating the life cycle of students (from admission to completion).*
- ✓ *The management of the EP should provide for the implementation of special adaptation and support programs for newly admitted and foreign students.*
- ✓ *The university must demonstrate that its actions comply with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and informal education.*
- ✓ *The university must provide opportunities for external and internal academic mobility of students, as well as assist them in obtaining external grants for their studies.*
- ✓ *The university should encourage students to self-educate and develop outside the main program (extracurricular activities).*
- ✓ *An important factor is the presence of a mechanism to support gifted students.*
- ✓ *The institution must demonstrate cooperation with other educational organisations and national centres of the "European Network of National Information Centres on Academic Recognition and Mobility/National Academic Recognition Information Centres" ENIC / NARIC in order to ensure comparable recognition of qualifications.*
- ✓ *The university must provide students with internship places, demonstrate the procedure for facilitating the employment of graduates, and maintaining contact with them.*
- ✓ *The university must demonstrate the procedure for issuing graduates with documents confirming the qualifications they have received, including the learning outcomes they have achieved.*
- ✓ *The leadership of the EP must demonstrate that the program graduates have skills that are in demand in the labor market and that these skills are truly relevant.*
- ✓ *The management of the educational institution must demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates.*
- ✓ *An important factor is the presence of an active alumni association/association.*

### **Evidential part**

The EP management demonstrates the policy of forming the contingent of students of the EP from admission to graduation and ensures the transparency of its procedures. To form the contingent of students, the teaching staff of the department conducts career guidance work in secondary schools, in organizations of secondary specialized education in the city of Temirtau, Karaganda region and in other regions of Kazakhstan.

The procedures regulating the life cycle of students (from admission to completion) are defined, approved, published in the internal documents of QMS StO II.8-01.01-2021 "Management of the applicant selection process", QMS StO II.8-02.02-2021 "Management of the educational activity process", QMS StO II.8-02.03-2021 "Management of the educational process", QMS P 4 - 53 - 2022 Regulation on the internal quality assurance system of NJSC "Karaganda Industrial University" (approved on 28.01.2022), Academic Policy of KIU (approved on 25.02.2022, protocol No. 7).

The formation of the contingent of students is carried out by the Admissions Committee (Front Office), which acts in accordance with the Model Rules for Admission to Educational Organizations Implementing Higher and Postgraduate Educational Programs, as well as the Rules for Admission to KarIU and the Regulation on the Admissions Committee, the Regulation on Career Guidance Work (approved on 27.02.2019). When admitting to KarIU, the Admissions Committee is also guided by the internal document QMS StO II.8-01.01-2021 "Management of the Applicant Selection Process".

The formation of the contingent of students is carried out by placing a state educational order for the training of specialists with higher and postgraduate education, as well as payment for tuition at the expense of citizens' own funds and other sources.

Admission of foreign citizens to study on a fee-paying basis is carried out in the form of an interview conducted by the admissions committee. Educational documents issued by foreign educational organizations undergo the nostrification procedure in accordance with the procedure established by law after enrollment of persons, during the first semester of study.

Informing students about the requirements of the educational program and the specifics of its implementation is ensured through career guidance work carried out in accordance with QMS P 4-28-1-2019 "Regulations on career guidance work" (approved on 02/27/2019). Systematic career guidance work is carried out by departments on the basis of the Career Guidance Work Plans annually approved by the rector.

The university website contains all the necessary information for applicants.

In order to organize assistance in the adaptation of first-year master's students to the educational process at the university, at the beginning of each academic year, the departments and staff of the

DNIiMS hold events to familiarize with the Academic Calendar, the structure of creating a master's portfolio, preparing reports on research work, drawing up individual curricula, etc. For master's students, on a contractual basis, information is provided on the procedure for paying for tuition.

To assist postgraduates, the KarIU Student Handbook has been developed, which includes: basic concepts, a brief historical background and structure of the university, the location of all services and a telephone directory, the student's code of honor (the rights and obligations of students), general provisions on the credit technology of education, the methodology for calculating the student's knowledge assessment and GPA, the procedure for conducting an appeal and the summer academic semester, and the rules for using the university library. The Handbook is freely available on the university website. The Handbook is updated annually to include changes in the university's regulatory framework.

KarIU has a practice of recognizing higher education qualifications, periods of study and prior learning, including recognition of non-formal and informal learning, which is based on ensuring actions in accordance with the Lisbon Convention on the Recognition of Qualifications concerning Higher Education in the European Region.

In accordance with the Academic Policy of KarIU and QMS P 4-33-2022 Rules for the transfer and reinstatement of students (approved on January 28, 2022), a student has the right to credit previously mastered subjects in other educational institutions. Credit for subjects is also transferred upon admission to shortened programs mastered on the basis of higher or technical and vocational education.

The management of the university and accredited educational institutions has a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and informal education, enshrined and published in the academic policy of the university and QMS P4-42-2020 Regulation on the recognition of learning outcomes in informal education.

Within the framework of the Bologna Process, great importance is attached to the academic mobility of students, teachers and administrative staff of the university. The mechanism for recognizing the learning outcomes achieved during academic mobility is prescribed in QMS P 4-24-2021 Regulation on academic mobility of NAO "Karaganda Industrial University" (approved on September 24, 2021). The university provides opportunities for external and internal mobility of students of the EP, and also assists them in obtaining external grants for study. Coordination of academic mobility programs, monitoring and analysis of the results of academic mobility at the university are carried out by DAP and DNIiMS. Information on the academic mobility of students is presented on the KarIU website.

The management of the EP has created conditions to ensure that students undergo high-quality practical training; the university has concluded agreements with enterprises for the conduct of all types of practical training.

For successful employment of graduates of educational programs, conditions are provided for successful completion of teaching and research practice by students (according to the Regulation on the procedure for organizing and conducting teaching practice for master's and doctoral students, approved on January 28, 2022), both in methodological support and in moral support, and as a result, after completing the practice, many students already at this stage get a job.

The work on organizing professional practice and facilitating the employment of graduates at the department is based on constant communication with potential employers, concluding new cooperation agreements. Information on concluded agreements and memorandums with city-forming enterprises, representatives of large and medium-sized businesses for the practical training of students is provided on the KarIU website. Agreements for completing internships at EcoPromTechnology LLP (No. 02/23 dated April 3, 2023), EcoResourceTechnology LLP (no number dated May 24, 2023), International Scientific and Production Holding Phytochemistry JSC (no number dated January 31, 2022), ArcelorMittal Temirtau JSC (No. 23-15 dated October 3, 2023), RSE on the Right of Economic Management "National Center of Expertise" of the CSEC of the Ministry of Health of the Republic of Kazakhstan represented by the Branch of the RSE on the Right of Economic Management "National Center of Expertise" of the CSEC of the Ministry of Health of the Republic of Kazakhstan for the

Karaganda Region (No. 2/23 dated March 29, 2023) and others.

Coordination and general management of the organization and implementation of internships for master's students, and employment of graduates are carried out by the departments, DAP and DNIIMS. The sector for the organization of the educational process and professional development of DAP, together with the departments, is engaged in monitoring the labor market, employment of graduates, maintaining contacts with enterprises and graduates, and annually organizes the "Graduate Fair".

Employment of graduates by educational program over the past 3 years

Name of the OP	Number of graduates	Number of distributed graduates	Employment rate, %
2020-2021			
7M07102 Chemical technology of organic substances	-	-	-
7M11201 Industrial and environmental safety	1	1	100
7M07109 – Materials Science and Nanotechnology of Materials	2	2	100
2021-2022			
7M07102 Chemical technology of organic substances	1	1	100
7M11201 Industrial and environmental safety	-	-	-
7M07109 – Materials Science and Nanotechnology of Materials	1	1	100
2022-2023			
7M07102 Chemical technology of organic substances	1	1	100
7M11201 Industrial and environmental safety	4	4	100
7M07109 – Materials Science and Nanotechnology of Materials	1	1	100

The university has an alumni association. This association provides support and assistance in various areas of work.

The management of the university and the EP provides graduates of the EP with documents confirming the qualifications obtained, including the achieved learning outcomes, as well as the context, content and status of the education received and certificates of its completion. Each graduate receives a diploma of the established form with a transcript in 3 languages indicating the volume of mastered disciplines in credits and a European Diploma Supplement.

### **Analytical part**

Based on the results of interviews with the university management and heads of educational programs, it is clear that all structures are interested in providing students with internships, facilitating the employment of graduates, and maintaining feedback with them. In addition, when interviewing employers, the EEC experts conclude that enterprises are interested in graduates of the accredited educational programs.

KarIU provides the opportunity for external and internal academic mobility of students of the EP. Relevant memorandums have been concluded and agreements have been drawn up with international and Kazakhstani universities and research institutes. If there is an interest in mobility, the coordinator provides advisory assistance to students in determining the list of disciplines to study and filing an application. Based on the received application, the university issues an order on the duration of training, languages of instruction and specialty. Incoming academic mobility of master's students from partner universities is poorly developed; in recent years, there have been no master's students from other universities studying at KarIU under accredited EPs, and there is also no documentary evidence.

The EEC experts noted weak work in attracting master's students on a contractual basis and training master's students at the expense of partner enterprises.

The University has created an Alumni Association, but there is no confirmation of its actual work. In this regard, it is necessary to develop measures that would allow the Alumni Association to be more active in the University's activities.

According to the survey results, 75% of students express complete satisfaction with the availability of academic counseling, 5. Support with educational materials during the learning process - 75%, availability of computer classes - 100%, availability and quality of Internet resources - 83.3%, available scientific laboratories - 83.3%, teaching methods in general - 91.7%, objectivity and fairness of teachers - 100%.

***Strengths/best practices for the educational programs “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- according to this Standard, the EPs do not have any strengths.

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- The university management shall take measures to increase the activity and role of the Alumni Association in the development of the university's material and technical base. Duration – permanent.
- The EP management should provide opportunities for external academic mobility, as well as intensify efforts to attract incoming (external/internal) mobility. Duration: permanent.

***Conclusions of the EEC based on the criteria:***

According to the “Students” standard, educational programs 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials have 11 satisfactory positions, 1 position suggests improvement.

## 6. 7. Standard "Teaching staff"

- ✓ *The university must have an objective and transparent personnel policy in the context of the educational program, including hiring (including invited faculty), professional growth and development of personnel, ensuring the professional competence of the entire staff.*
- ✓ *The university must demonstrate that the quality of the teaching staff complies with the established qualification requirements, the university strategy, and the goals of the educational program.*
- ✓ *The leadership of the EP must demonstrate the changing role of the teacher in connection with the transition to student-centred learning and teaching.*
- ✓ *The university must provide opportunities for career growth and professional development of teaching staff, including young teachers.*
- ✓ *The university must involve in teaching specialists from relevant fields who possess professional competencies that meet the requirements of the educational program.*
- ✓ *The university must demonstrate the existence of a mechanism for motivating the professional and personal development of the teaching staff.*
- ✓ *The university must demonstrate the widespread use of teaching staff, information and communication technologies and software in the educational process (for example, on-line learning, e-portfolio, MOOCs, etc. ).*
- ✓ *The university must demonstrate its focus on developing academic mobility and attracting the best foreign and domestic teachers.*
- ✓ *The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity in the university, and determine the contribution of the teaching staff, including invited faculty, to achieving the goals of the educational program.*
- ✓ *An important factor is the involvement of teaching staff in the development of the economy, education, science and culture of the region and the country.*

### **Evidential part**

The University's personnel policy is reflected in the Charter, collective agreement, work regulations, Regulation "On the competitive replacement of positions of faculty and research staff of the University" (approved on 01/28/2022, as amended on 05/27/2022), QMS 4-19-2020 "Rules for competitive replacement of positions of faculty and research staff of the Karaganda Industrial University", QMS StO II.7-01.01-2020 "Human Resources Management".

The university has developed job descriptions (QMS StO II.7-01.01-2023 Human Resource Management. Job descriptions) that establish the level of knowledge, skills, professional abilities and work experience, responsibility and authority, functions, job responsibilities, and rights.

The criteria for hiring the teaching staff are established on the basis of QMS P 4-20 - 2022 "Regulations on the qualification characteristics of the positions of scientific and pedagogical workers" ( approved on 01/28/2022, as amended on 05/27/2022 ) and QMS 4-19-2020 "Rules for the competitive replacement of positions of teaching staff and research workers of the Karaganda Industrial University".

The required level of competence of the teaching staff at KarIU is achieved through open training sessions, mutual visits to classes, and the survey "Teacher through the eyes of students". The results of these events serve as the basis for extending employment contracts of the teaching staff, career advancement, and participation in the annual republican competition "Best University Teacher". There are 2 winners of the state grant "Best University Teacher" at the Department of Chemical Technology and Electrical Engineering in 2008 - Isanova B.Kh., 2012 - Kabieva S.K.; at the Department of MiM - Best University Teacher - 2015 Nurumgaliev A.Kh., Best University Teacher - 2022 Zhunisqaliev T.T., Best University Teacher - 2023 Kuatbay E.

In order to comply with the principle of transparency in the formation of teaching staff, the following procedures are provided:

- announcement of a competition for filling vacant positions and posting an announcement of the competition on the KarIU website, no less than thirty calendar days before the deadline for accepting documents;
- providing everyone with equal opportunities to participate in the competition, based on the principles of meritocracy;
- ensuring fair competition among competition participants;
- maintaining objectivity and transparency in the competition;
- familiarization of competition participants with competition documents and decisions of the commission, in the part concerning them;
- the right of competition participants to appeal the decision of the competition committee in accordance with the procedure established by the legislation of the Republic of Kazakhstan.

The university's teaching staff actively conducts research work, the results of which are used to publish scientific articles and reports in various periodicals and proceedings of international and national

conferences. The results of research work are also introduced into the educational process as part of completing graduation projects, developing elective courses, teaching aids and guidelines.

In the period 2022-2025, the Department of Mathematics and Mechanics is implementing 3 projects on grant funding, 2 projects are at the examination stage. At the Department of Chemical Technology and Ecology, one project is under examination.

In the 2023-2024 academic year, within the framework of the program of the Ministry of Science and Higher Education to attract foreign experts to teaching activities and the Memorandum between the NAO Karaganda Industrial University and the Istanbul Technical University (Istanbul, Turkey), two Turkish professors from the Istanbul Technical University - Mehmet Seref Sonmez (PhD, Associate Professor) and Kagan Benzesik (PhD, Research Assistant) - were invited to the Department of Metallurgy and Materials Science for a period of one month.

The University has developed and put into effect the Regulation on the rating assessment of the activities of the teaching staff and employees of the NAO Karaganda Industrial University and the competitions "Best Department", "Best Faculty", "Best Division" (approved on 08/02/2022), which provides for incentives and bonuses for the best. For example, all teachers and employees received a bonus for the Independence Day of the Republic of Kazakhstan in 2022 and in 2023 on the eve of the holiday on March 8.

In 2019, the head of the department, PhD in Chemistry, Associate Professor Kabieva S.K. was awarded the badge "For Achievements in Science of the Republic of Kazakhstan" (award of the Ministry of Education and Science of the Republic of Kazakhstan). In 2022, 3 teachers of the department were awarded awards: Associate Professor of the Department V.V. Merkulov - the badge "For Achievements in Science of the Republic of Kazakhstan" (award of the Ministry of Education and Science of the Republic of Kazakhstan), Associate Professor of the Department N.F. Gavva - the Certificate of Honor of the Ministry of Education and Science of the Republic of Kazakhstan, Professor of the Department I.A. Amanzhol - the badge of the Association of Higher Education Institutions of the Republic of Kazakhstan.

At present, the Departments of Metallurgy and Chemical Engineering and Electrical Engineering employ permanently teachers with significant experience in the relevant industries. For example, Associate Professor of the Department of Chemical Engineering and Electrical Engineering, PhD Merkulov V.V., has many years of experience in engineering and management positions at JSC TEMK .

The teachers of the department regularly undergo internships, advanced training courses (Kuatbay E.K. and Abdirashit A.M. were sent on a business trip to South Ural State University, Chelyabinsk, Russian Federation ; Zhuniskaliev T.T. was sent on a business trip to the Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Yekaterinburg, Russian Federation; Erzhanov A.S. completed a scientific internship at South Ural State University, Chelyabinsk, Russian Federation (03.07.-05.08.2023), etc.), in addition, during the reporting period, 3 teachers of the Chemical Technology and Electrochemistry Department visited KazNITU named after K.I. Satpayev (Almaty) and Tomsk State University (Tomsk, Russian Federation) as part of a scientific project.

Teachers of the Department of Chemical Technology and Electrical Engineering have completed advanced training courses in innovative teaching technologies (Merkulov V.V., Gavva N.F., Kabieva S.K. completed advanced training courses at the National Research Tomsk State University, Tomsk, Russian Federation).

Foreign teachers can be invited to the University for up to 1 academic year for research work and lecturing as part of the implementation of academic mobility programs. From November 30, 2021 to December 28, 2021, foreign scientist V.V. Konshin, Doctor of Chemical Sciences of the Altai State Technical University named after I.I. Polzunov. In the 2023-2024 academic year, within the framework of the program of the Ministry of Science and Higher Education to attract foreign experts to teaching activities and the Memorandum between NAO Karaganda Industrial University and Istanbul Technical University (Istanbul, Turkey), two Turkish professors from Istanbul Technical University - Mehmet

Seref Sonmez (PhD, Associate Professor) and Kagan Benzesik (PhD, Research Assistant) were invited to the Department of Metallurgy and Materials Science for a period of one month.

For the professional development of young teachers, each of them is assigned a mentor from among experienced teachers to provide them with methodological assistance in organizing training sessions. Every year, it is planned to enroll young teachers in the master's program and in targeted doctoral studies.

An individual work plan for a teacher is drawn up annually, reviewed at a department meeting, and approved by the head of the department.

### ***Analytical part***

The human resources potential corresponds to the implemented projects.

At the same time, based on the results of the analysis of documents submitted by the university and interviews with teachers, the members of the EEC established insufficient activity of the teaching staff in academic mobility programs within the framework of the accredited educational programs, weak work on the development of massive open online courses and the use of informal learning in the process of training personnel.

In order to ensure high-quality classes, KarIU has a system of advanced training and professional development for the university's teaching staff and personnel.

According to the results of the IAAR survey, the teaching staff express complete satisfaction with the level of accessibility of the university management - 60.9%; encouragement of innovative activities - 31.3%, the level of stimulation of young specialists in the educational process - 63%, recognition of the potential and abilities of teachers - 63%. The teaching staff evaluates the work set at the university in academic mobility - 37% and advanced training of teachers - 43.5%.

***Strengths/best practices for the educational programs “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- according to this Standard, the OPs do not have any strengths.

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials” :***

- The management of the educational institution shall take measures to organize academic mobility of the teaching staff within the framework of the accredited educational institutions. The term is permanent.

- The management of the university and the educational program should update the educational program development plans by adding the following indicators: participation of the teaching staff in the academic mobility program, development of MOOCs, application of informal learning methods. These indicators can also be included in the Regulation on the rating assessment of the activities of the teaching staff and employees of the NAO Karaganda Industrial University and the competitions "Best Department", "Best Faculty", "Best Division". Deadline - at the beginning of the 2024-2025 academic year.

### ***Conclusions of the EEC based on the criteria:***

According to the standard “Teaching staff”, educational programs 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials have 9 satisfactory positions, 1 position suggests improvement.

## 6. 8 . Standard "Educational resources and student support systems"

- ✓ The university must guarantee that the infrastructure and educational resources, including material and technical resources, correspond to the goals of the educational program .
- ✓ The management of the EP must demonstrate the adequacy of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the OP's goals.
- ✓ The university must demonstrate that information resources meet the needs of the university and the educational programs being implemented, including in the following areas:
  - ✓ technological support for students and teaching staff in accordance with educational programs (e.g. online learning, modeling, databases, data analysis programs);
  - ✓ library resources, including a collection of educational, methodological and scientific literature on general educational, basic and specialized disciplines on paper and electronic media, periodicals, access to scientific databases;
  - ✓ examination of research results, graduation theses, dissertations for plagiarism;
  - ✓ access to educational Internet resources;
  - ✓ functioning of WI-FI on its territory.
- ✓ The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, and publishing the results of scientific research work by faculty, staff, and students.
- ✓ The university should strive to ensure that the educational equipment and software used for mastering educational programs are similar to those used in the relevant sectors of the economy.
- ✓ The leadership of the EP should demonstrate that there are procedures in place to support different groups of students, including information and consultation.
- ✓ The management of the educational institution must demonstrate the existence of conditions for the student's advancement along an individual educational trajectory.
- ✓ The university must take into account the needs of different groups of students (adults, working students, international students, as well as students with special educational needs).
- ✓ The university must ensure that its infrastructure meets safety requirements.

### **Evidential part**

During the work of the EEC, the experts made sure that the university has the material, technical, information and library resources used to organize the process of teaching and educating students and to implement the mission, goals and objectives of KariU.

At the university, support for students and teaching staff corresponds to the specifics of educational programs. All buildings of the university comply with the Sanitary and Epidemiological Requirements for educational facilities.

The University has 6 educational and laboratory buildings with a total area of 44.01 thousand square meters, where classrooms, specialized rooms and laboratories, the University Museum, the Center for Information Technology and Telecommunications, and 20 computer classes are located. The University Sports Complex, with a total area of 2,300 square meters, includes 6 game halls and 2 open areas.

The modern computer equipment park comprises more than 400 units. The computer park is regularly modernized. The use of licensed packages of applied computer programs is constantly expanding. For master's students of all EPs, all types of educational activities, including research and development and dissertations are supported by modern software packages - Mathcad, Matlab, KOMPAC, DEFORM, etc.

The Departments of Chemical Engineering and Electrical Engineering and MiM have sufficient material and technical resources, which allow them to fully provide laboratory practical training for all disciplines studied. The departments have laboratory research stands from leading manufacturers, as well as those made by the teaching staff and students.

The Department of Metallurgy and Metallurgy is equipped with the following material and technical base: Laboratories of Preparation of Ores for Enrichment, Flotation Methods of Enrichment, Metallurgical Processes, Preparation of Ores for Enrichment, Testing and Control, etc.

The Department of Chemistry and Electrochemistry is equipped with the following material and technical base: laboratory of organic synthesis, laboratory of physicochemical analysis, laboratory of chemical technology, laboratory of polymer synthesis, laboratory of analytical chemistry, laboratory of chromatography. In the period from 2020 to 2023, chemical glassware, reagents and the following modern equipment were purchased for the Department of Chemistry and Electrochemistry: voltammetric complex STA with a stove for sample preparation; gas chromatograph "CrystalLux-4000M"; spectrophotometer; vacuum pump; heating mantles; laboratory scales; centrifuge; water distiller; fume hoods; island chemical tables; tableting molds , ball mill, vibration sifter.

Training of students and postgraduates in safety requirements is carried out in accordance with regulatory documents: Instructions on safety and electrical safety when working with electrical equipment, Instructions on fire safety measures in the divisions of KarIU, Instructions on safety when working with computing equipment.

Faculty and students from the IP addresses of KarIU have access to international databases of peer-reviewed scientific literature, such as Scopus, Web of Science, which expands the range of use of electronic scientific research resources.

The university practices publishing electronic textbooks, which are placed in the digital library and are freely available. The university has a modern library and a reading room, the collection of which contains more than 290 thousand copies of educational, educational-methodical, scientific literature in Kazakh, Russian and foreign languages, more than 30 titles of newspapers and magazines are subscribed annually. The university library is located in the main academic building of the university. In the periodicals room, which is located inside the subscription, there are 12 computerized seats, with the ability to access the Internet and access the electronic resources of the library. The reading room is designed for 42 readers. The reading room fund is located in 2 tiers in a systematic order, which ensures the complete disclosure of funds and their accessibility to readers.

The total book collection of the library as of 01.01.2024 is 296,520 copies, of which 115,409 copies are in the state language; 1,348 copies are in English. Educational literature on electronic media makes up 23% of the total collection - 67,441 copies.

The University constantly strives to improve the level of use of information technologies in the organization of the educational process. The educational process management systems AIS "Platonus" and the educational electronic course management system (electronic learning), "Moodle" are in operation.

The procedure for supporting students with disabilities is regulated by the QMS P 4-50-2021 "Regulations on the organization of inclusive education for individuals with disabilities at the NAO Karaganda Industrial University" (approved on June 25, 2021).

The examination of the results of research and development, master's theses for plagiarism is carried out using the system "StrikePlagiarism", a Polish academic anti-plagiarism system.

University students undergo practical training at such companies as JSC Karmet, JSC TEMK, TOO Kurylysmet, TOO Karaganda Pharmaceutical Plant (Karaganda), MNPKH Fitokhimiya (Karaganda), etc., where they can apply their knowledge and skills in relation to equipment and software in practice. funds received during laboratory work. The university ensures compliance with safety requirements during the educational process.

Each university building has a video surveillance system and an electronic access control system: by electronic key, fingerprint, Face ID. The movement of students, faculty and university staff through the turnstile is recorded in a separate database.

### ***Analytical part***

Students have access to educational and methodological materials published by teachers. To improve the learning process, teachers of the departments have prepared methodological instructions, manuals and developments published in various publishing houses

As a result of the visual inspection of the material base facilities by the members of the EEC, it was established that the university has all the necessary educational and material assets to ensure the educational process of the accredited educational programs. The university buildings and structures comply with current sanitary standards and fire safety requirements.

At the same time, there is morally and physically obsolete equipment that is used in the educational process and requires updating.

The existing classroom fund (lecture halls, educational laboratories, computer labs, specialized rooms) meets the needs of students of accredited educational programs for educational premises.

For all disciplines of the accredited educational programs, there are teaching and methodological materials of the teaching staff on electronic and magnetic media. Diploma theses and master's dissertations are checked for plagiarism.

The fund of educational, educational and methodological literature for accredited educational programs contains morally obsolete literature. In this regard, it is recommended to pay attention to the constant updating of the literature fund.

The university strives to take into account the needs of various groups of students in the context of the educational program.

The university has an Alumni Association, but there is no documentary evidence of the support provided for the development of the EP.

According to the results of the survey, 75% of students are completely satisfied with the support of educational materials during the learning process; 83.3% are completely satisfied with the level of availability of library resources; 83.3% are completely satisfied with the existing educational resources of the university; 100% with the availability of computer classes, 83.3% with the available scientific laboratories, and 91.7% with the available computer classes.

***Strengths/best practices for the educational programs “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- according to this Standard, the OPs do not have any strengths.

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- The university management and heads of the educational programs should organize work (meetings/conferences) with employers and the alumni association on attracting sponsorship funds and equipment for the development and renewal of material resources within the framework of the educational programs being implemented. Duration: permanent.

- The university management, in order to strengthen technological support for students and teaching staff, should update the material and technical base of the educational program by updating laboratory equipment and technical devices. Duration: permanent.

***Conclusions of the EEC based on the criteria:***

According to the standard “Educational Resources and Student Support Systems”, educational programs 7M07102 Chemical Technology of Organic Substances, 7M11201 Industrial and Environmental Safety, 7M07106 Materials Science and Nanotechnology of Materials have 9 satisfactory positions, 1 position suggests improvement.

## 6. 9 . Standard "Informing the Public"

- ✓ The university guarantees that the published information is accurate, objective, relevant and reflects all areas of the university's activities within the framework of the educational program.
- ✓ Public awareness should include support and clarification of the country's national development programs and the system of higher and postgraduate education.
- ✓ The university management should use a variety of methods of disseminating information (including the media, web resources, information networks, etc.) to inform the general public and interested parties.
- ✓ Information about the educational program is objective, up-to-date and must include:
  - ✓ the purpose and planned results of the educational program, the qualification awarded;
  - ✓ information and the system for assessing the academic achievements of students;
  - ✓ information about academic mobility programs and other forms of cooperation with partner universities and employers;
  - ✓ information on opportunities for developing personal and professional competencies of students and employment;
  - ✓ data reflecting the positioning of the educational institution in the educational services market (at the regional, national, and international levels).
- ✓ An important factor is publication of reliable information about the teaching staff, broken down by individuals, on open resources.
- ✓ The university must publish audited financial statements for the educational program on its own website.
- ✓ The university must post information and links to external resources based on the results of external assessment procedures.
- ✓ An important factor is the placement of information on cooperation and interaction with partners, including scientific/consulting organizations, business partners, social partners and educational organizations.

### **Evidential part**

KarIU carries out targeted work to inform the public about the activities of the educational organization, the conditions and features of the implementation of the educational program.

The procedure for publishing information about the activities of the university is regulated by the internal document QMS P-4-27-2022 "Regulations on informing the public" (approved on 11.01. 2022).

Guidelines EP 7M07102 - HTOV, 7M11201 - PiEB, 7M07106 - MTNM uses various methods of disseminating information, including the media, information networks to inform the general public and interested parties.

The website contains official information about the main areas of the university's activities (educational, scientific, educational, social); about faculties, college, departments, laboratories, departments, centers, divisions and other divisions; about news and events taking place at the university. The website implements information services such as "News and Announcements", "Rector's Blog" (<https://tttu.edu.kz/ru/blog-rektora/>), "Mission and Strategy of the University", "Faculties and Other Structural Divisions of the University". The website contains links to significant information resources of the university, full-text electronic information systems and other resources useful for the educational and scientific process. Information on the website is posted in three languages: the state language - Kazakh, Russian and English.

KAIU displays on its web resource information characterizing the university as a whole and in the context of educational programs. The principles of construction and structure of information materials posted on the official information website of the university are determined by the internal document QMS P 4-27-1-2021 "Regulations on the official website of the Karaganda Industrial University" (approved on August 27, 2021), which also regulates the technology of its creation and operation. The site contains links to significant information resources of the university, full-text electronic information systems and other resources useful for the educational and scientific process. The KAIU website publishes reliable, objective, up-to-date information about EP 7M07102 - HTOV, 7M11201 - PiEB, 7M07106 - MTNM and their specifics.

The KarIU website publishes adequate and objective information about the teaching staff implementing the accredited educational programs, broken down by individuals. Information about the teaching staff contains information about education, academic degrees and titles, taught disciplines, contact information, etc.

KAIU informs the public about cooperation and interaction with partners within the framework of the OP, including scientific/consulting organizations, business partners, social partners and educational organizations. To present relevant information, the KAIU website has sections "International Academic Partners", "International Scientific Partners", "Our Partners". Information about new facts of cooperation and interaction is published in the website's news feed and social networks. An example of such publications is information from 20.02.2023 about the visit of the KAIU delegation to the University of

Portsmouth (UK) to develop mutually beneficial cooperation, conduct joint research, develop a strategy and cooperation projects.

The website's "Development Plans" tab presents the Comprehensive Development Plan from the 2018-2019 to the 2023-2024 academic years, as well as reports on the implementation of the Comprehensive Development Plan for the period from the 2018-2019 to the 2022-2023 academic years.

### ***Analytical part***

An analysis of the website showed that the information provided reflects the main areas of the university's activities and may be useful to applicants, students, faculty and university staff, and other interested parties.

Assessment of satisfaction with information about the activities of the university, the specifics and progress of the EP implementation is carried out annually through questionnaires and surveys of interested parties.

The website and educational portal of the university are a unified system of information support for students and teaching staff.

***Strengths/best practices for the educational programs “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- according to this Standard, the OPs do not have any strengths.

***Recommendations for the educational program “7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials”:***

- there are no recommendations for this standard.

### ***Conclusions of the EEC based on the criteria:***

According to the “Public Informing” standard, educational programs 7M07102 Chemical Technology of Organic Substances, 7M11201 Industrial and Environmental Safety, 7M07106 Materials Science and Nanotechnology of Materials have 12 satisfactory positions.

## **(VII) OVERVIEW OF STRENGTHS/BEST PRACTICES FOR EACH STANDARD**

### **According to the standard “Educational Program Management”:**

- according to this Standard, the OPs do not have any strengths.

### **According to the Information Management and Reporting standard:**

- the AIS "Platonus" and AIS MOODLE for the system of collection, analysis and management of information , ensuring automation of educational activities and ensuring the quality of the implementation of the educational program.

### **According to the standard “Development and approval of educational programs”:**

- according to this Standard, the OPs do not have any strengths.

### **According to the standard “Continuous monitoring and periodic evaluation of educational programs”:**

- according to this Standard, the OPs do not have any strengths.

### **According to the standard “Student-centred learning, teaching and assessment of academic performance”:**

- according to this Standard, the OPs do not have any strengths.

### **According to the standard "Students":**

- according to this Standard, the OPs do not have any strengths.

### **According to the standard "Teaching staff":**

- according to this Standard, the OPs do not have any strengths.

### **According to the standard “Educational resources and student support systems”:**

- according to this Standard, the OPs do not have any strengths.

### **According to the standard "Informing the public":**

- according to this Standard, the OPs do not have any strengths.

## **(VIII) OVERVIEW OF QUALITY IMPROVEMENT RECOMMENDATIONS FOR EACH STANDARD**

### **According to the standard “Educational Program Management”:**

- The leadership of the EP shall carry out systematic work to define, update and formulate the individuality and uniqueness of educational programs in accordance with the national priorities for the development of the country's economy and the development strategy of the Karaganda region. Deadline - by the beginning of the 2024-2025 academic year.

### **According to the Information Management and Reporting standard:**

- The management of the OVPO, based on the results of the survey of students and employees on the degree of their satisfaction with the educational activities of the university, shall ensure measures to eliminate the identified deficiencies. Duration - permanent.
- The management of the educational institution shall systematically review educational programs based on the proposals of students and teaching staff, as well as taking into account the recommendations of employers. Duration - permanent.

### **According to the standard “Development and approval of educational programs”:**

- The management of the educational program must include courses in the educational program to prepare students for professional certification, including the recognition of the results of informal learning. Deadline: 31.03.2025.
- The heads of the educational programs shall begin work on the possibility of opening joint and/or double-degree educational programs with foreign partner universities. Deadline: 30.12.2024.

### **According to the standard “Continuous monitoring and periodic evaluation of educational programs”:**

- In order to promptly inform interested parties (students, stakeholders), the EP management must annually post detailed information on the university website related to changes in the structure and/or content of the EP, the graduate model, etc. about the decisions made in terms of taking into account their proposals and wishes. Duration - permanent.

### **According to the standard “Student-centred learning, teaching and assessment of academic performance”:**

- The leadership of the educational institution must organize the conduct and development of its own research on the teaching methods of the educational institution's disciplines. Deadline: 31.03.2025.
- The management of the educational program should actively involve students of the accredited educational programs in the implementation of research and creative work with participation in grant funding, social projects, Erasmus + programs, as well as various creative competitions. Duration - permanent.

### **According to the standard "Students":**

- The university management shall take measures to increase the activity and role of the Alumni Association in the development of the university's material and technical base. Duration – permanent.
- The EP management should provide opportunities for external academic mobility, as well as intensify efforts to attract incoming (external/internal) mobility. Duration: permanent.

### **According to the standard "Teaching staff":**

- The management of the educational institution shall take measures to organize academic mobility of the teaching staff within the framework of the accredited educational institutions. The term is permanent.

- The management of the university and the educational program should update the educational program development plans by adding the following indicators: participation of the teaching staff in the academic mobility program, development of MOOCs, application of informal learning methods. These indicators can also be included in the Regulation on the rating assessment of the activities of the teaching staff and employees of the NAO Karaganda Industrial University and the competitions "Best Department", "Best Faculty", "Best Division". Deadline - at the beginning of the 2024-2025 academic year.

**According to the standard “Educational resources and student support systems”:**

- The university management and heads of the educational programs should organize work (meetings/conferences) with employers and the alumni association on attracting sponsorship funds and equipment for the development and renewal of material resources within the framework of the educational programs being implemented; Duration – permanent.

- The university management, in order to strengthen technological support for students and teaching staff, should update the material and technical base of the educational program by updating laboratory equipment and technical devices. Duration: permanent.

**According to the standard "Informing the public":**

- there are no recommendations for this standard.



**(IX) REVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF EDUCATIONAL ORGANIZATION**

- There are none .

**(X) RECOMMENDATION TO THE ACCREDITATION COUNCIL**

The members of the EEC came to a unanimous opinion that 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials are **recommended** for **and credit for a period of 5 years.**



**Appendix 1. Evaluation table “Conclusion of the external expert commission” (for EP 7M07102 Chemical technology of organic substances, 7M11201 Industrial and environmental safety, 7M07106 Materials science and nanotechnology of materials)**

p\p	p \p	Evaluation criteria	Position of the educational organization			
			Strong	Satisfy- telny	Suggests improvement	Dissatisfied telny
Standard " Educational Program Management "						
1	1.	The university must demonstrate the development of the goal and strategy for the development of the educational program based on the analysis of external and internal factors with the broad involvement of various stakeholders.		+		
2	2.	Quality assurance policies should reflect the relationship between research, teaching and learning		+		
3	3.	The university demonstrates the development of a quality assurance culture		+		
4	4.	Commitment to quality assurance should apply to all activities carried out by contractors and partners (outsourcing), including in the implementation of joint/dual degree education and academic mobility		+		
5	5.	The management of the EP ensures transparency in the development of the EP development plan based on an analysis of its functioning, the actual positioning of the university and the focus of its activities on meeting the needs of students, the state, employers and other interested parties.		+		
6	6.	The management of the educational program demonstrates the functioning of mechanisms for the formation and regular revision of the educational program development plan and monitoring of its implementation, assessment of the achievement of educational goals, compliance with the needs of students, employers and society, and decision-making aimed at continuous improvement of the educational program		+		
7	7.	The management of the educational institution must involve representatives of stakeholder groups, including employers, students and teaching staff, in the formation of the educational institution development plan.		+		
8	8.	The leadership of the EP must demonstrate individuality and uniqueness development plan of the educational institution , its consistency with national development priorities and the development strategy of the educational organization		+		
9	9.	The university must demonstrate a clear definition of those responsible for business processes within the EP, the distribution of job responsibilities of personnel, and the delineation of the functions of collegial bodies.		+		
10	10.	The EP management ensures the coordination of the activities of all persons involved in the development and management of the EP and its continuous implementation, and also involves all interested persons in this process.		+		

11	11.	The management of the EP must ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and the adoption of appropriate decisions.		+		
12	12.	R The management of the EP must implement risk management		+		
13	13.	The management of the educational program must ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegial bodies managing the educational program, as well as their representativeness in decision-making on issues of managing the educational program.		+		
14	14.	The university must demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals		+		
15	15.	The leadership of the educational institution must demonstrate its openness and accessibility to students, teaching staff, employers and other interested parties.		+		
16	16.	The management of the EP confirms completion of training in educational management programs		+		
17	17.	The management of the EP should ensure that the progress made since the last external quality assurance procedure is taken into account in preparation for the next procedure.		+		
<b>Total by standard</b>			<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>
<b>Standard " Information Management and Reporting "</b>						
18	1.	The university must ensure the functioning of a system for collecting, analyzing and managing information based on modern information and communication technologies and software		+		
19	2.	The EP management demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system		+		
20	3.	The EP management demonstrates the existence of a reporting system reflecting the activities of all structural divisions and departments within the EP, including an assessment of their performance	+			
21	4.	The university must determine the frequency, forms and methods of assessing the management of the educational institution, the activities of collegial bodies and structural divisions, and senior management.		+		
22	5.	The university must demonstrate a mechanism for ensuring the protection of information, including the identification of persons responsible for the accuracy and timeliness of information analysis and the provision of data.		+		
23	6.	The university demonstrates the involvement of students, employees and faculty in the processes of collecting and analyzing information, as well as making decisions based on it		+		
24	7.	The leadership of the educational institution must demonstrate the existence of mechanisms for communication with students, employees and other stakeholders, including conflict resolution.		+		
25	8.	The university must ensure that the degree of satisfaction of the needs of students, faculty and staff within the framework of the EP is measured and demonstrate evidence of the elimination of identified deficiencies.		+		
26	9.	The university must evaluate the effectiveness and efficiency of activities in the context of the educational program			+	
<i>The information collected and analyzed by the university within the framework of the EP must take into account:</i>						
27	10.	Key performance indicators		+		
28	11.	dynamics of the student contingent in terms of forms and types		+		
29	12.	academic performance, student achievement and dropout		+		

30	13.	satisfaction of students with the implementation of the educational program and the quality of education at the university		+		
31	14.	availability of educational resources and support systems for learners		+		
32	15.	employment and career growth of graduates		+		
33	16.	Students, teaching staff and personnel must provide documentary evidence of their consent to the processing of personal data.		+		
34	17.	The management of the EP should facilitate the provision of necessary information in the relevant fields of science.		+		
<b>Total by standard</b>			<b>1</b>	<b>15</b>	<b>1</b>	<b>0</b>
<b>Standard " Development and approval of the educational program "</b>						
35	1.	The university must demonstrate the existence of a documented procedure for developing the EP and its approval at the institutional level.		+		
36	2.	The university must demonstrate the compliance of the developed educational program with the established goals and planned learning outcomes.		+		
37	3.	The leadership of the EP should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
38	4.	The university demonstrates the presence of a graduate model of the EP, describing the learning outcomes and personal qualities		+		
39	5.	The qualification awarded upon completion of the EP must be clearly defined, explained and correspond to a specified level of the NQF, QF - EHEA		+		
40	6.	The management of the EP should demonstrate the modular structure of the program based on ECTS , ensure that the structure of the content of the EP corresponds to the set goals with a focus on achieving the planned learning outcomes for each graduate		+		
41	7.	The management of the educational institution must ensure that the content of academic disciplines and learning outcomes correspond to each other and to the level of education (bachelor's, master's, doctoral)		+		
42	8.	The management of the EP must demonstrate that external examinations of the EP have been carried out.		+		
43	9.	The management of the EP must provide evidence of the participation of students, faculty and other stakeholders in the development and quality assurance of the EP		+		
44	10.	The management of the educational institution must demonstrate the uniqueness of the educational program, its positioning in the educational market (regional/national/international)		+		
45	11.	An important factor is the ability to prepare students for professional certification			+	
46	12.	An important factor is the presence of joint <i>and</i> /or double degree programs with foreign universities.			+	
<b>Total by standard</b>			<b>0</b>	<b>10</b>	<b>2</b>	<b>0</b>
<b>Standard " Continuous monitoring and periodic evaluation of the educational program "</b>						

47	1.	The university must ensure a revision of the structure and content of the educational program, taking into account changes in the labor market, employers' requirements and the social demands of society.		+		
48	2.	The university must demonstrate the existence of a documented procedure for monitoring and periodic evaluation to achieve the objectives of the EP and continuously improve the EP.		+		
<i>Monitoring and periodic evaluation of the EP should consider:</i>						
49	3.	the content of the program in the context of the latest achievements of science and technology in a specific discipline		+		
50	4.	changes in the needs of society and the professional environment		+		
51	5.	workload, academic performance and graduation of students		+		
52	6.	the effectiveness of student assessment procedures		+		
53	7.	needs and satisfaction of learners		+		
54	8.	compliance of the educational environment and activities of support services with the objectives of the educational program		+		
55	9.	The management of the EP must publish information about changes to the OP, inform interested parties about any planned or undertaken actions within the OP.		+		
56	10.	Support services should identify the needs of different groups of students and their level of satisfaction with the organization of learning, teaching, assessment, and mastering of the educational program as a whole.		+		
<b>Total by standard</b>			<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>
<b>Standard " Student-centered learning, teaching and assessment of academic performance "</b>						
57	1.	The leadership of the educational institution must ensure respect and attention to different groups of students and their needs, providing them with flexible learning paths		+		
58	2.	The management of the educational program must ensure teaching based on modern achievements of world science and practice in the field of training, the use of various modern teaching methods and assessment of learning outcomes that ensure the achievement of the educational program goals, including competencies and skills for performing scientific work at the required level.		+		
59	3.	The management of the educational program must determine the mechanisms for distributing the students' academic workload between theory and practice within the educational program, ensuring that each graduate masters the content and achieves the educational program's goals.		+		
60	4.	An important factor is the presence of own research in the field of teaching methods of the EP disciplines		+		
61	5.	The university must ensure that the procedures for assessing learning outcomes correspond to the planned results and objectives of the educational program.		+		
62	6.	The university must ensure consistency, transparency and objectivity of the mechanism for assessing the learning outcomes of the EP, publication of criteria and methods for assessing learning outcomes in advance		+		
63	7.	Assessors must be proficient in modern methods of assessing learning outcomes and regularly improve their skills in this area.		+		
64	8.	The leadership of the EP must demonstrate the existence of a feedback system on the use of various teaching methods and assessment of learning		+		

		outcomes				
65	9.	The leadership of the EP should demonstrate support for learner autonomy while providing guidance and assistance from the teacher.		+		
66	10.	The management of the educational institution must demonstrate the existence of a procedure for responding to student complaints.		+		
<b>Total by standard</b>			<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>
<b>Standard " Students "</b>						
67	1.	The university must demonstrate the policy for forming the contingent of students and ensure transparency and publication of procedures regulating the life cycle of students (from admission to completion)		+		
68	2.	The management of the EP should provide for the implementation of special adaptation and support programs for newly admitted and foreign students.		+		
69	3.	The university must demonstrate that its actions comply with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and informal education.		+		
70	4.	The university must provide opportunities for external and internal academic mobility of students, as well as assist them in obtaining external grants for study.			+	
71	5.	The university should encourage students to self-education and development outside the main program (extracurricular activities)		+		
72	6.	An important factor is the presence of a mechanism to support gifted students		+		
73	7.	The institution must demonstrate cooperation with other educational organisations and national centres of the "European Network of National Information Centres on Academic Recognition and Mobility/National Academic Recognition Information Centres" ENIC / NARIC in order to ensure comparable recognition of qualifications		+		
74	8.	The university must provide students with internships, demonstrate the procedure for facilitating the employment of graduates, and maintaining contact with them.		+		
75	9.	The university must demonstrate the procedure for issuing graduates with documents confirming the qualifications they have received, including the learning outcomes they have achieved		+		
76	10.	The leadership of the EP must demonstrate that the program graduates have skills that are in demand in the labor market and that these skills are truly relevant.		+		
77	11.	The management of the EP must demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates		+		
78	12.	An important factor is the presence of an active alumni association/association		+		
<b>Total by standard</b>			<b>0</b>	<b>11</b>	<b>1</b>	<b>0</b>
<b>Standard " Teaching staff "</b>						
79	1.	The university must have an objective and transparent personnel policy in the context of the educational program, including hiring (including invited faculty), professional growth and development of personnel, ensuring the professional competence of the entire staff.		+		
80	2.	The university must demonstrate that the quality of the teaching staff complies with the established qualification requirements, the university strategy, and the goals of the educational program.		+		
81	3.	The leadership of the EP must demonstrate the changing role of the teacher in connection with the transition to student-centred learning and teaching		+		

8 2	4.	The university should provide opportunities for career growth and professional development of teaching staff, including young teachers		+		
8 3	5.	The university must involve in teaching specialists from relevant fields who possess professional competencies that meet the requirements of the EP		+		
8 4	6.	The university must demonstrate the existence of a mechanism for motivating the professional and personal development of the teaching staff		+		
85	7.	The university must demonstrate the widespread use of teaching staff, information and communication technologies and software in the educational process (for example, on-line learning, e-portfolio, MOOCs, etc. )		+		
86	8.	The university must demonstrate its focus on developing academic mobility and attracting the best foreign and domestic teachers.		+		
87	9.	The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity in the university, determine the contribution of the teaching staff, including invited ones, to achieving the goals of the EP			+	
8 8	10.	An important factor is the involvement of the teaching staff in the development of the economy, education, science and culture of the region and the country.		+		
<b>Total by standard</b>			<b>0</b>	<b>9</b>	<b>1</b>	<b>0</b>
<b>Standard "Educational Resources and Student Support Systems"</b>						
89	1.	The university must guarantee that the infrastructure and educational resources, including material and technical resources, correspond to the goals of the educational program.		+		
90	2.	The EP management must demonstrate the adequacy of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the OP's goals.		+		
<i>The university must demonstrate that information resources meet the needs of the university and the educational programs being implemented, including in the following areas:</i>						
91	3.	technological support for students and teaching staff in accordance with educational programs (e.g. online learning, modeling, databases, data analysis programs)		+		
92	4.	library resources, including a collection of educational, methodological and scientific literature on general education, basic and specialized disciplines on paper and electronic media, periodicals, access to scientific databases		+		
93	5.	examination of research results, graduation papers, dissertations for plagiarism		+		
9 4	6.	access to educational Internet resources		+		
95	7.	Wi-Fi operation on your territory		+		
96	8.	The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, and publishing the results of scientific research work by faculty, staff, and students.		+		
9 7	9.	The university should strive to ensure that the educational equipment and software used for mastering educational programs are similar to those used in the relevant sectors of the economy.			+	
9 8	10.	The management of the EP should demonstrate that there are procedures in place to support different groups of students, including information and consultation.		+		

99	11.	The management of the educational institution must demonstrate the existence of conditions for the student's advancement along an individual educational trajectory.		+		
100	12.	The university must take into account the needs of different groups of students (adults, working students, international students, as well as students with special educational needs)		+		
101	13	The university must ensure that its infrastructure meets safety requirements		+		
<b>Total by standard</b>			<b>0</b>	<b>12</b>	<b>1</b>	<b>0</b>
<b>Standard "Informing the Public"</b>						
102	1.	The university guarantees that the published information is accurate, objective, relevant and reflects all areas of the university's activities within the framework of the educational program.		+		
103	2.	Public awareness should include support and clarification of the country's national development programs and the system of higher and postgraduate education		+		
104	3.	The university management should use a variety of methods of disseminating information (including the media, web resources, information networks, etc.) to inform the general public and interested parties.		+		
<i>Information about the educational program is objective, up-to-date and must include:</i>						
105	4.	the purpose and planned results of the educational program, the qualification awarded		+		
106	5.	information and the system of assessing the academic achievements of students		+		
107	6.	information on academic mobility programs and other forms of cooperation with partner universities and employers		+		
108	7.	information on opportunities for developing students' personal and professional competencies and employment		+		
109	8.	data reflecting the positioning of the educational institution in the educational services market (at the regional, national, international levels)		+		
110	9.	An important factor is publication on open resources of reliable information about the PPS, broken down by individuals		+		
111	10.	The university must publish audited financial statements for the EP on its own web resource.		+		
112	11.	The university must post information and links to external resources based on the results of external assessment procedures.		+		
113	12.	An important factor is the placement of information on cooperation and interaction with partners, including scientific/consulting organizations, business partners, social partners and educational organizations.		+		
<b>Total by standard</b>			<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>
<b>TOTAL</b>			<b>1</b>	<b>106</b>	<b>6</b>	<b>0</b>