



«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 the evaluation for compliance with the requirements of the standards of primary specialized accreditation of educational programs (Ex-ante)
6B07115 TECHNOLOGICAL MACHINERY AND EQUIPMENT
(by industry)

6B07305 TRANSPORT CONSTRUCTION

7M07320 TRANSPORT CONSTRUCTION

8D07114 NANOMATERIALS AND NANOTECHNOLOGIES

NON-COMMERCIAL JOINT STOCK COMPANY
«KAZAKH NATIONAL RESEARCH TECHNICAL UNIVERSITY
NAMED AFTER K.I. SATBAYEV»

Date of EEC visit: from April 19 to April 21, 2022

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING

External expert commission

*Addressed to
Accreditation
Council of the IAAR*



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Almaty

April 21, 2022

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(I) LIST OF SYMBOLS AND ABBREVIATIONS

BD - basic disciplines
SOSE - state obligatory standard education
DP - documented procedure
RET - remote educational technology
UNT - single national testing
ME&M - Mechanical Engineering and Modeling
ITP - individual training plan
CTL - credit technology learning
CED - catalog elective disciplines
MES RK - Ministry education and science Republic Kazakhstan
MEP - modular educational program
MTP - modular training plan
RDS - research of doctoral students
GED - general educational disciplines
EP - educational program
PD - profiling disciplines
RK - Republic Kazakhstan
RUP - worker-training plan
QMS - system management quality
IWDS - independent Work doctoral students
IWDST - independent Work doctoral students under leadership teacher
TTP - typical training plan
EAS – educational and auxiliary staff
EMCS - educational and methodological complex of the specialty
EMW - educational and methodical Work
CPR - Center for Public Relations
EUMM - electronic educational methodological materials

(II) INTRODUCTION

In accordance with Order No. 44-22-OD dated February 23, 2022 of the Director General of the Independent Agency for Accreditation and Rating, from April 19 to April 21, 2022, an external expert commission assessed the compliance of educational programs 6B07115 "Technological machines and equipment", 6B07305 "Transport Construction", 7M07320 "Transport Construction", 8D07114 "Nanomaterials and Nanotechnologies" in the Non-Commercial Joint Stock Company "KazNRTU named after K.I. Satpayev" to the standards of specialized accreditation of the IAAR (No. 57-20-OD dated June 16, 2020, sixth edition).

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

EEC staff:

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8D07114 Nanomaterials and nanotechnologies IAAR expert - Nazhipkyzy Meruert, Ph.D., Associate Professor of the Kazakh National University. al-Farabi (Almaty, Republic of Kazakhstan).

(III) REPRESENTATION OF EDUCATIONAL ORGANIZATION

NAO "Kazakh National Research Technical University named after K.I. Satpayev" (hereinafter: university, university, KazNRTU named after K.I. Satbayev, Satbayev University) is one of the oldest educational institutions of the Republic of Kazakhstan.

The university was founded in 1934 as the Kazakh Mining and Metallurgical Institute. In the 30s of the XX century. in order to solve the problems of eliminating the technical and economic backwardness of the national economy, an urgent need arose for the development of higher technical education in the country. To solve this problem in the capital of Kazakhstan, Alma-Ata, the Kazakh Mining and Metallurgical Institute (KazMMI) was opened with two faculties: mining and non-ferrous metals. The first bell of the first academic year at KazMMI rang on September 19, 1934. This very day was the beginning of the development of technical sciences in Kazakhstan.

The Institute played an important role in the formation and development of scientific and practical activities in the field of geology, mining, metallurgy of Kazakhstan. The scientific school, formed on the basis of the institute, made a great contribution to the development of the ore resource base of the republic and the organization of new technologies for mining and metallurgical production.

The university has become a base for providing engineering personnel to the industry of the republic and one of the main sources of personnel for scientific, state and public figures in Kazakhstan. Its history is connected with the names of such famous scientists and cultural figures as Omirkhan Baikonurov, Kanysh Satpayev, Zhamal Kanlybayeva, Ilyas Yesenberlin, Kazbek Valiev, Shakhmardan Yessenov, Akzhan al-Mashani, Bakhyt Sultanov, Askar Zhumagaliyev, Aikyn Tolepbergen, Beibut Atamkulov.

The merits of Academician K.I. Satbaev. Starting from the first graduation of mining geologists in 1937 - 1938, Kanysh Imantayevich was the chairman of the State Examination Commission. During the Great Patriotic War, he was a member of the Academic Council of the university.

In 1960, KazMMI was renamed into KazPTI - Kazakh Polytechnic Institute. In 1967, the Dos-Mukasan vocal and instrumental ensemble was organized at the Faculty of Automation and Computer Engineering. In January 1980, the Institute of Architecture and Civil Engineering was opened in Alma-Ata, the basis for which was the architectural and civil engineering faculties of KazPTI, as well as the Alma-Ata branch of the All-Union Correspondence Engineering and Civil Engineering Institute. The Institute was awarded the Order of the Red Banner of Labor; in 1999 the university was named after Academician K.I. Satbayev.

In January 1994, KazPTI named after. V. I. Lenin was transformed into the Kazakh National Technical University (KazNTU), which was entrusted with the functions of training personnel for the country according to a multi-level structure adopted in world practice, as well as the development of curricula and training programs in technical specialties.

By the Decree of the Government of the Republic of Kazakhstan dated September 22, 1999, for special merits in the training of engineering and technical personnel of the country and in commemoration of the 100th anniversary of the birth of Academician Kanysh Imantayevich Satpayev, the Kazakh National Technical University was named after this outstanding Kazakh geologist.

In 2001, by the Decree of the President of the Republic of Kazakhstan N.A. Nazarbayev University was given a special status, and in 2014 - the category "National Research Technical University". In 2017 KazNRTU named after K.I. Satbayev was renamed Satbayev University.

To date, Satbayev University has: 10 institutes, 6 research institutes, 27 departments, 3 scientific and educational centers, 114 teaching and research laboratories, 11 scientific laboratories, 2 training grounds. Satbayev University occupies a leading position in national and international rankings and is an associate member of 9 associations and consortiums in the field of education, science and

technology. More than 50% of full-time employees have advanced degrees. Education is based on the credit system.

Training of bachelors in EP 6B07115 "Technological machines and equipment (by industry)" is carried out at the department "Technological machines and transport". The contingent of undergraduate students in the 1st year is 19 students.

Training of bachelors and masters in EP 6B07305 "Transport construction", 7M07320 "Transport construction" is carried out at the department "Construction and building materials". The contingent of undergraduate students in the 1st year is 6 students and graduate students in educational programs - 9 undergraduates.

Doctoral students are trained in EP 8D07114 - Nanomaterials and Nanotechnologies at the Department of Materials Science, Nanotechnologies and Engineering Physics.

The departments "Technological machines and transport", "Materials science, nanotechnology and engineering physics", "Construction and building materials" are the administrative and structural unit of the university, carrying out scientific, research, educational activities and educational work among students, and also provides postgraduate training scientific and pedagogical staff.

In the 2021-2022 academic year, the following specialists are trained and graduate at the Department of Materials Science, Nanotechnology and Engineering Physics: a total of 9 teachers, including: 1 doctor of science; 3 PhDs; 2 candidates of sciences, 3 masters. The degree of teaching staff is 66%. The graduation of specialists at the Department of Construction and Building Materials is carried out by: a total of 10 teachers, including: 1 doctor of science; 7 candidates of sciences, 1 masters. The degree of teaching staff is 80%. The following specialists are engaged in the release of specialists at the department "Technological Machines and Transport": a total of 27 teachers, including 4 doctors of science; 8 PhDs, 3 PhDs. The degree of full-time teaching staff is 78.6%.

The graduating department of educational programs maintains relations with foreign partner universities in the near and far abroad. As part of the implementation of educational programs 8D07114 "Nanomaterials and Nanotechnologies", 6B07115 "Technological Machines and Equipment (by Industry)" and international cooperation, programs of invited foreign scientists for lecturing, conducting practical classes and consultations for students, cooperation is being carried out with such partner universities as Moscow Institute of Steel and Alloys (MISA, Russia), Silesian Technical University (Poland) and Magnitogorsk State Technical University named after G.I. Nosov. (Appendix 14 according to EP 6B07115). According to EP 8D07114 "Nanomaterials and Nanotechnologies", the subjects of doctoral students are related only to nanomaterials. The main base for practice and research for doctoral students is the Physico-Technical Institute LLP, since it is one of the flagships in the field of nanotechnology. Recently, a memorandum on double-diploma cooperation was signed with (NITU) MISA (Moscow, Russia). implementation of innovative logistics technologies (SCM, 3/4 PL) in order to effectively develop the transport system of the Republic of Kazakhstan”.

(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

Educational programs 8D07114 Nanomaterials and nanotechnologies, 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction external assessment for compliance with the standards of primary specialized accreditation of the educational program (Ex-ante) of the organization of higher and postgraduate education (put into effect by order No. 68-18/1-OD of May 25, 2018) are held for the first time.

(V) DESCRIPTION OF THE EEC VISIT

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 NJSC “KazNRTU named after K.I. Satbayev”, on-line visit using a hybrid model from April 19 to April 21, 2022.

In order to coordinate the work of the EEC, on April 15, 2022, an online kick-off meeting was held, during which powers were distributed among the members of the commission, the schedule of the visit was specified, and agreement was reached on the choice of examination methods.

In accordance with the requirements of the standards, the program of the visit included meetings with vice-rectors, heads of structural divisions, deans, program leaders of the university, teachers, students, graduates, employers and employees from structural divisions, interviews and questionnaires for teachers and students. In total, people took part in the meetings (Table 2).

Information about staff and students who took part in the meetings with the EEC IAAR

Table 2

Participant category	Number
Rector	1
Vice-rector	4
Directors of institutes	6
Heads of structural divisions	17
Heads of the departments	13
Lecturers	15
Students, masters by EP	6
Total	62

A visual inspection was carried out in order to obtain a general idea of the organization of educational, scientific and methodological processes, the material and technical base, to determine its compliance with standards, as well as for contacts with students and employees at their workplaces. The experts conducted an inspection of the department, structural divisions, laboratories, libraries, etc.

In accordance with the accreditation procedure, a survey of 30 teachers and 32 students was conducted.

In order to confirm the information presented in the Self-Assessment Report, the working documentation of the university was requested and analyzed by external experts. In particular, the Strategic Plan for the Development of the University for 2020-2025, the University Work Plan, the long-term plan for the development of the EP, modular educational programs, the catalog of elective disciplines, the RUE of master's and bachelor's programs, job descriptions, plans and minutes of the meeting of the department, EMCD, etc.

Along with this, the experts studied the Internet positioning of the university through the official website of the university. (Kazakh National Technical University named after K.Satpayev - Satbayev University).

During the work, the members of the EEC conducted visits to the following bases of practice: Almaty track distance-46 of the city of Almaty, JSC "Almaty heavy engineering plant".

For the period of accreditation, remote classes were attended: according to EP 6V11301 6V07115-Technological machines and equipment (by industry) discipline "Introduction to the specialty" (1 course), teacher Aitoreeva G.K.), EP 6V07305 "Transport construction" discipline "Theoretical mechanics" (2nd year, teacher Dzhapaev S.K.).

All conditions were created for the work of the EEC, access to all necessary information resources was organized. On the part of the KazNRTU team, the presence of all persons indicated in the visit program was ensured, in compliance with the established time period.

As part of the planned program, recommendations for improving the accredited educational programs of NJSC “Kazakh National Research Technical University named after. K.I. Satpayev, developed by the EEC based on the results of the examination, were presented at a meeting using a hybrid model with management on April 21, 2022.

(VI) COMPLIANCE WITH STANDARDS OF PRIMARY SPECIALIZED ACCREDITATION (EX-ANTE)

6.1 Standard "Management of the educational program"

✓ *The organization of higher and (or) postgraduate education should have a published quality assurance policy that reflects the relationship between research, teaching and learning.*

✓ *The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP.*

✓ *Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint / double degree education and academic mobility.*

✓ *The management of the EP demonstrates transparency in the development of the EP development plan, containing the start dates for implementation, based on an analysis of its functioning, the actual positioning of the PA and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders.*

✓ *The EP management demonstrates the existence of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP.*

✓ *The EP management should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan.*

✓ *The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education.*

✓ *The organization of higher and (or) postgraduate education must demonstrate a clear definition of those responsible for business processes within the EP, an unambiguous distribution of staff duties, and delimitation of the functions of collegial bodies.*

✓ *The management of the EP must provide evidence of the transparency of the educational program management system.*

✓ *The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, decision-making based on facts.*

✓ *The management of the EP must carry out risk management, including within the framework of the EP undergoing primary accreditation, as well as demonstrate a system of measures aimed at reducing the degree of risk.*

✓ *The management of the EP should ensure the participation of representatives of employers, teaching staff, students and other interested parties in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program.*

✓ *EO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals.*

✓ *The EP management must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties.*

✓ *The management of the EP should be trained in education management programs.*

Evidential part

NJSC “Kazakh National Research Technical University named after K.I. Satbayev” has a published academic policy (ACADEMIC POLICY 2021.pdf (Satbayev.university), approved by the decision of the Chairman of the Board - Rector dated September 20, 2021 protocol No. 25, which reflects the general provisions of the academic policy of KazNTU named after K.I. Satbayev.

At KazNRTU, educational programs are managed within the framework of an internal quality assurance system, which includes a Quality Assurance Policy and a description of the processes in a series of internal documents of the University developed as part of a certified quality management system.

As noted in the self-assessment report, the main goal of the Quality Policy of KazNRTU is to prepare graduates who are able to ensure the functioning and development of various fields of activity at the level of advanced achievements, who are worthy citizens of the Republic of Kazakhstan.

The EEC confirms that the management of educational programs is carried out in the context of the Strategic Development Plan of the NJSC “Kazakh National Research Technical University named after K.I. Satbayev”, containing the mission, vision and strategic goals of the university. The mechanism for developing goals and objectives for the development of accredited EPs is based on the Development Strategy of KazNRTU until 2025.

At the time of accreditation under EP 8D07114 "Nanomaterials and Nanotechnologies", EP 6B07115 "Technological Machines and Equipment (by industry)", EP 6B07305 "Transport Construction", 7M07320 "Transport Construction", plans for the development of EP for bachelor's, master's, doctoral studies for 2021 were presented -2025 academic years. The plan for the development of the EP is discussed at a meeting of the department, the Council of the Institute and approved at a meeting of the Academic Council of the University.

The management of the EP ensures the transparency of the development plan for the development of the EP based on an analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of the state, employers, and other stakeholders and students. To improve the EP, employers take part in the development and discussion of the plan at the meeting of the department:

- according to EP 8D07114 "Nanomaterials and Nanotechnologies", external reviews were received from PhD, Head of the Laboratory of Nanobiotechnology E.O. Doszhanov, and the Director of the Department of Space Materials Science and Instrumentation of JSC "National Center for Space Research and Technology", M.B. Ismailov.

- according to EP 6B07115 “Technological machines and equipment (by industry)”, external reviews were received from the General Director of Burmash LLP, Doctor of Technical Sciences, Professor Kudaykulova G.A., Commercial Director of JSC “AZTM” Kanatbaev M.A.

EEC experts made sure that in order to support the main business processes at the university, a set of internal regulatory documents regulating the implementation of the EP has been developed and implemented. The EP is managed through the work of collegial bodies, the planning system and the functioning of the internal quality assurance system.

Within the framework of accredited educational programs, responsible persons for business processes have been appointed, job responsibilities of personnel have been distributed (the presented job descriptions have been developed, available, and the functions of collegial bodies have been

delineated). The development of accredited educational programs was carried out with the participation of interested parties, in particular the teaching staff of the department.

Certain information about the management system is presented on the university website, distributed using other means, but it is not possible to evaluate the system as transparent. In most cases, information is available only to internal consumers.

Analytical part

The analysis of the fundamental documents showed that NJSC "Kazakh National Research Technical University named after K.I. Satbayev" demonstrates the management of educational programs, in accordance with the current legislation of the Republic of Kazakhstan in the field of education and science, the focus of the mission, strategy and vision on meeting the needs of the state, society, sectors of the real economy, potential stakeholders.

The EEC notes that stakeholders (students, teachers and employers) are aware of the availability of the University Development Program, the Policy and goals in the field of quality, internal regulations. The management of the EP demonstrated the operability of the internal quality management system. The transparency of the processes of formation of the EP development plan is confirmed by the participation of interested parties in it. This is evidenced by the activities of the Academic Council, the administration, the educational and methodological council, academic committees that ensure the management of the main EPs. Development plans for accredited EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies are coordinated with the University Development Program.

During the visual inspection and analysis of documents, the EEC made sure that those responsible for the educational processes were appointed, within which the implementation of the EP is regulated, the duties of the staff were distributed, and the functions of the collegiate bodies were delineated. The university demonstrates the development of a culture of quality assurance in the context of EP. The quality of the educational process includes not only the quality of curricula and technologies, the quality of the personnel potential involved in the educational process, the quality of the material and technical base, etc., but also the quality of the scientific potential of the university, the quality of new knowledge transmitted by teachers.

The management of the EP ensures the participation of representatives of employers in the management of the educational program and its development, which was revealed as a result of interviews with teachers and employers. Participation in international, national and regional professional alliances and associations is successfully developing.

The EEC notes the need to analyze the functions of the University employees involved in the management of educational programs in order to clarify their responsibilities in connection with changes made to the regulatory legal acts in the field of education and new approaches to determining the qualification characteristics of teaching staff positions.

To develop strategic documents, the team evaluates the university in meeting the needs of stakeholders, as well as a prospective analysis of the development of the educational services market. The individuality of the EP development plan is partially traced. At the same time, the formulation of the uniqueness and individuality of the EP development plan and its consistency with the national development priorities and the development strategy of the University of KazNRTU is not detailed enough.

Familiarization with the documents and the results of an interview with the head of the EP "Transport construction" made it possible to understand that there is no clear idea about the uniqueness and individuality of these EPs, except as a guide to entrepreneurship, their competitive advantages have not been identified.

Also, members of the EEC note that according to EP 8D07114 Nanomaterials and Nanotechnologies, 6B07115 Technological Machines and Equipment (by industry), 6B07305 Transport Construction, 7M07320 Transport Construction, there are practically no negative comments identified by the service of a sociological survey of accessibility and responsiveness of the university management "completely satisfied" - 53.5%, "partially satisfied" - 33.8% of students. Insufficiently highly teachers assess their participation in the processes of making managerial and strategic decisions. According to the results of the survey, 28.2% gave the rating "very good" and 59.2% of the teaching staff "good".

Best practice for EP 6B07115 Technological machinery and equipment (by industry), 8D07114 Nanomaterials and nanotechnologies, EP 6B07305 Transport construction, 7M07320 Transport construction::

- Openness of the management of the EP for students, teaching staff, employers and other interested parties.
- Participation of teaching staff, students, employers in the collegial management bodies of the EP.

EEC recommendations for EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Specify and update the development plan for accredited EPs in order to determine their uniqueness and considering the priority areas for the development of scientific research for the industries of technological machines, transport construction and in the field of nanotechnology, in accordance with the University Development Strategy and with changes in regulatory legal acts in the higher education system. (due to December 1, 2022).

- Ensure the implementation of innovation management functions (planning and forecasting, stimulation, etc.), including educational innovations in the field of technological machines, transport construction and nanotechnology.

- Develop a procedure for identifying innovations and introducing them into educational activities in EP 8D07114 Nanomaterials and Nanotechnologies. Determine the criteria for innovation. Appoint those responsible for identifying innovations, forming, approving, implementing and monitoring the implementation of innovative proposals (deadline until January 1, 2023).

- Guideline EP 8D07114 Nanomaterials and Nanotechnologies" needs to assess the main risks of the EP and include in the plan for the implementation and development of the EP activities aimed at managing them. To ensure the recruitment of a high-quality contingent of students at the EP, the management of the EP needs to conduct extensive and systematic career guidance, including in a remote format (until January 1, 2023).

EEC conclusions by criteria:

According to the standard "Management of the educational program" EP 6B07115 Technological machines and equipment (by industry), 15 criteria are disclosed, of which: 14 have a satisfactory position, 1 - suggests improvement.

EEC conclusions by criteria:

According to the standard "Management of the educational program" EP 6V07305 Transport construction, 7M07320 Transport construction, 15 criteria are disclosed, of which: they have 1 strong position, 12 - satisfactory positions, 2 - suggest improvements.

EEC conclusions by criteria: According to the standard "Educational Program Management" EP 8D07114 Nanomaterials and Nanotechnologies, 15 criteria are disclosed, of which: 12 have a satisfactory position, 3 - suggest improvement.

6.2. Standard "Information Management and Reporting"

✓ The EO must demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software tools and that it uses a variety of methods to collect and analyze information in the context of the EP.

✓ The management of the EP should demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.

✓ EP management must demonstrate fact-based decision-making.

✓ Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research.

✓ The PA must establish the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management, the implementation of scientific projects

✓ The EO must demonstrate the determination of the procedure and ensuring the protection of information, including the identification of persons responsible for the reliability and timeliness of the analysis of information and the provision of data.

✓ An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.

✓ The management of the EP must demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for resolving conflicts.

✓ EO must demonstrate the availability of mechanisms for measuring the degree of satisfaction with the needs of teaching staff, staff and students within the framework of the EP.

✓ The PA should provide for an assessment of the effectiveness and efficiency of activities, including in the context of the EP.

✓ Information expected to be collected and analyzed within the framework of the EP should take into account:

✓ key performance indicators;

✓ the dynamics of the contingent of students in the context of forms and types;

✓ level of progress, students' achievements and expulsion;

✓ satisfaction of students with the implementation of the EP and the quality of education at the university;

✓ availability of educational resources and support systems for students

✓ The PA must confirm the implementation of the procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent.

Evidential part

In NJSC "KazNRTU named after K.I. Satbayev" is developing a successful system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software (Documentologist, AIS "Platonus", Office 365). The Satbayev University information platform, which combines the educational portal sso.satbayev.university, Office.com applications, as well as polytechonline.kz, offers students and faculty a single entry point to the Study Portal under corporate accounts.

These and other internal regulatory documents provide an internal quality management system for EP 8D07114 Nanomaterials and Nanotechnologies, 6B07115 Technological Machinery and Equipment (by industry), 6B07305 Transport Construction, 7M07320 Transport Construction. To improve the internal quality assurance system, the results of questionnaires and feedback are actively used, the results of recruitment, employment, audits and other information arrays are less updated. There is a system of regular reporting.

The site provides information about the main activities of the university - the management of educational, scientific and educational processes, provides information about the structural units, the rector's blog, there is a representative office of the university in social networks (Twitter, Facebook, Instagram, Vkontakte, in the WhatsApp Facebook messenger, Instagram). The website of the university functions in three languages, but no work is being done on the information content of the educational portal of the university. To ensure high-quality content, information content and timely updating of all sections of the portal, information for the portal is accepted in a documented form.

In the management system of the EP, the activities of collegial bodies and structural divisions, top management, the frequency, forms and methods of evaluation are established.

The EO defines the order and ensures the protection of information. The involvement of students, employees and teaching staff in the processes of collecting and analyzing information covers only the analysis of satisfaction based on surveys.

KazNRTU is actively developing communications with students, employees and other stakeholders, primarily on the basis of modern information and communication technologies. In conflict resolution mechanisms are well defined.

The analysis of satisfaction with the needs of teaching staff, staff and students is carried out on a regular basis, however, the procedures for analyzing the results, forming and implementing corrective actions have not been established, respectively, the activity to eliminate the identified deficiencies is not fully manageable.

Criteria for evaluating the effectiveness and efficiency of activities are not fully defined.

Regarding information collected and analyzed by the university. Key performance indicators are fully defined, respectively, the system for their collection is complete and sufficient. The availability of educational resources is provided on the basis of library resources, including electronic ones.

Considerable attention is paid to providing employees and teaching staff with the necessary information in the relevant fields of science, information resources and international databases are widely used.

Analytical part

Analyzing compliance with the requirements of the standard "Information Management and Reporting" for accredited EP EP 8D07114 Nanomaterials and Nanotechnologies, 6B07115 Technological Machinery and Equipment (by industry), 6B07305 Transport Construction, 7M07320 Transport Construction, the commission notes that the university has an information management and reporting system for student enrollment, academic performance, contingent movement, staffing, academic mobility of teaching staff and students, etc., which is presented in regular reports at a meeting of the collegiate bodies of the university.

The Commission notes that the internal regulatory documentation developed at the university (organizational standards, documented procedures, methodological instructions) determines the structure and volume of information collected, its reliability and timeliness, allows generating analytical reports and making decisions based on facts.

The university has established the frequency, forms and methods for evaluating the activities of managers and collegiate bodies, the procedure has been determined and the protection of information is ensured.

Key performance indicators are fully defined, respectively, the system for their collection is complete and sufficient.

The information collection system is not complete, but it is not always fully used for analysis and, accordingly, for decision-making. Of particular note is the analysis of student satisfaction with the implementation of the EP and the quality of education and the employment and career of graduates, in these areas the work is carried out at a high level.

The commission also notes that the educational portal does not provide enough information about the teaching staff and their achievements.

According to the results of the survey, the usefulness of the university's website in general and the faculties in particular are "completely satisfied" - 67.6% of students, "partially satisfied" - 26.7%. "Very good" 40.8% and "good" 50.7% rate the teaching staff the level of feedback from the management.

The complete satisfaction of students with the level of accessibility of the dean's office is 89.2%, the accessibility and responsiveness of the university management - 73%, the availability of academic counseling - 78.4%, the availability of counseling on personal problems - 64.9%.

Strengths/best practice for EP 6B07115 Technological machinery and equipment (by industry), 8D07114 Nanomaterials and nanotechnologies, 6B07305 Transport construction, 7M07320 Transport construction:

- Implementation of an integrated approach to the processing and management of information to improve the internal quality assurance system using modern information and communication technologies.

EEC recommendations for EP 6B07115 Technological machines and equipment (by industry), 8D07114 Nanomaterials and nanotechnologies, 6B07305 Transport construction, 7M07320 Transport construction:

- To provide participants in the educational process with the necessary information, improve the information content of the websites of structural divisions (in particular, the faculty and special departments) presented on the university website according to the levels of education implemented by the EP, expand the personal pages of the teaching staff and the heads of the EP. (Deadline December 1, 2022)

- Develop, document and include in the information collection and analysis system clear quantitative criteria for assessing the effectiveness and efficiency of activities for the implementation of the EP (deadline by December 01, 2023).

EEC conclusions by criteria

According to the standard "Information Management and Reporting" EP 6B07115 Technological machines and equipment (by industry), 16 criteria are disclosed, of which: all 16 have a satisfactory position.

EEC conclusions by criteria:

According to the standard "Information Management and Reporting": EP 6B07305 Transport Construction, 7M07320 Transport Construction, 16 criteria are disclosed, of which: they have 1 strong position, 15 are satisfactory positions.

EEC conclusions by criteria:

According to the standard "Information Management and Reporting" EP 8D07114 Nanomaterials and Nanotechnologies: 16 criteria are disclosed, of which: 15 have a satisfactory position, 1 - suggests improvements.

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

✓ *The EO must define and document the procedures for the development of the EP and their approval at the institutional level.*

✓ *The management of the EP should ensure that the developed EP complies with the established goals, including the expected learning outcomes.*

✓ *The management of the EP should ensure the availability of developed models of the EP graduate, describing the learning outcomes and personal qualities.*

✓ *The management of the EP must demonstrate the conduct of external examinations of the EP.*

✓ *The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NSC and QF-EHEA.*

✓ *The management of the EP should determine the influence of disciplines and professional practices on the formation of learning outcomes.*

✓ *An important factor is the possibility of preparing students for professional certification.*

✓ *The management of the EP must provide evidence of the participation of students, teaching staff and other stakeholders in the development of the EP, ensuring their quality.*

✓ *The labor intensity of the EP should be clearly defined in Kazakhstani credits and ECTS.*

✓ *The management of the EP should ensure the content of academic disciplines and learning outcomes for the level of education (bachelor's, master's, doctoral studies).*

✓ *The structure of the EP should provide for various types of activities that ensure the achievement of the planned learning outcomes by students.*

✓ *An important factor is the correspondence between the content of the EP and the learning outcomes of the EP implemented by organizations of higher and (or) postgraduate education in the EHEA.*

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 Strategic Development Plan of NJSC "KazNRTU named after. K.I. Satbayev" for 2020-2025.

The procedures for assessing the quality of the educational program are determined by the internal regulations of the university. Educational programs are reviewed and updated annually in terms of the content of curricula, the composition and content of the work programs of disciplines, programs of educational and industrial practices. Revision and updating of working curricula takes place once at the end of the academic year and is approved for the next academic year. The analysis of working curricula is carried out during the academic year by the heads of departments together with teachers.

The quality assessment of educational programs is carried out on the basis of the analysis of curricula, a catalog of elective disciplines, timetables, individual plans of students, internal regulations governing the implementation of educational programs.

Systematic work is being done to ensure the influence of disciplines and professional practices on the formation of learning outcomes. Appropriate design and review procedures have been developed

at the institutional level. The university pays attention to preparing graduates for professional adaptation.

Curricula provide for the modular study of disciplines in compliance with the logical sequence of study of disciplines and contain a complete list of academic disciplines both in compulsory and elective components. The labor intensity of disciplines of cycles in Kazakhstani and ECTS credits, as well as in hours, all types of professional practice, intermediate certification are indicated. In all forms of curricula, a unified discipline coding system is used, which provides for assigning to each discipline of the curriculum an appropriate code in symbols of alphabetic and numeric expressions.

Within the framework of the Advisory Council, the participation of teaching staff and other stakeholders in the development of EPs and ensuring their quality is ensured. EPs are annually reviewed and improved, undergo the procedure of external and internal examination and ensure the quality of educational services.

During the visit to the department, the members of the EEC found that the implemented EPs were evaluated by external experts. To conduct an external examination for the reporting period, according to educational programs 6B07115 "Technological machines and equipment (by industry)", 6B07305 "Transport construction", 7M07320 "Transport construction", 8D07114 "Nanomaterials and Nanotechnologies", employers of LLP "Distance Way", JSC "AZTM", LLP "Burmash", JSC "National Center for Space Research and Technology", etc.

The university demonstrates a desire to implement joint educational programs, but at this stage this work has not acquired the necessary scale corresponding to the level of the university's activities.

A survey of students conducted during the EEC visit showed:

- Informing the requirements in order to successfully complete this specialty "fully satisfied" - 83.8% and "partially satisfied" - 16.2%;
- Informing about courses, educational programs, and academic degrees "fully and partially satisfied" - 83.8%.

Analytical part

Analyzing the standard "Development and approval of the educational program", the members of the EEC came to the conclusion that the consideration and discussion of the EP takes place at the meetings of the department, recommended by the decision of the Council of Institutes and approved at the meeting of the Academic Council of the University.

The university pays the necessary attention to the design of the EP, developed and approved a number of documented procedures that have a productive impact on the quality of the educational process. In particular, the procedure for forming a graduate model was developed and implemented at a good level.

The current procedures for the design and implementation of educational programs provide a solution to a number of problems, including ensuring the influence of disciplines and professional practices on the formation of learning outcomes (professional standards developed by industry associations of employers).

EEC members note that the educational programs 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies are provided by WC, syllabuses, UMKD, which are compiled in accordance with regulatory documents and meet the specifics of the accredited EP. A set of QED disciplines, the choice of enterprises for internships contributes to the formation of students' professional competencies.

A graduate model has been developed. The graduate model is reflected in the goal of EP 6B07305 Transport construction, 7M07320 Transport construction, formed competencies, qualification characteristics of a graduate of all levels of training.

The accredited EPs are developed on the basis of the TUP of specialties, taking into account the needs of potential employers. The developers of the EP are the teaching staff of the department - leading specialists in the fields of science and education in the profile of the EP.

To assess the quality of the EP, the university has documented mechanisms for internal quality assessment and expertise.

Competency models of graduates have been developed for all accredited EPs, which are a set of professional, personal and meta-subject learning outcomes. Analysis of the planned learning outcomes indicates their compliance with the goals and objectives of the EP.

However, the educational program 8D07114 Nanomaterials and Nanotechnologies did not demonstrate the existence of mechanisms for reviewing the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society. According to this EP 8D07114 Nanomaterials and Nanotechnologies, PhD doctoral studies have not been recruited since 2019, which is confirmed by the order to approve the supervisors and topics of doctoral dissertations of PhD doctoral students at the IPI (Order No.

The facts of work on programs of professional certification of students were not revealed. Although the manual EP 8D07114 Nanomaterials and Nanotechnology has the potential to interact with enterprises to prepare students for professional certification.

Despite the fact that the university has concluded cooperation agreements with foreign educational organizations and research centers, there is no joint EP actually implemented with foreign universities for accredited EPs.

Questioning of students, conducted during the visit of the EEC IAAR, showed that:

- the speed of response to feedback from teachers regarding the educational process is "fully satisfied" - 81.1% and partially satisfied - 18.9%.

- Satisfied with the quality of teaching "completely" - 64.9%, "partially satisfied" - 29.7%, "partially dissatisfied" - 5.4%.

To the question to the teachers, how does the content of the educational program satisfy your needs? The positive answer "very good" and "good" was provided by 72.4% and 27.6% of the respondents.

Strengths/best practice for EP 6B07115 Technological machinery and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The management of the EP has organized and is conducting an external examination of the content of the EP, the availability of internal regulatory documents that determine the main provisions for the development of the EP and the organization of educational activities.

EEC recommendations for EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop an action plan for the creation of joint/s educational/s programs with the identification of potential partners among national and foreign universities, the coordination of the structure of the PMM, the preparation of elements of the EP for approval and the start of admission from 2023.

- Revise and approve the content and structure of EP 8D07114 "Nanomaterials and Nanotechnologies" taking into account changes in the labor market, employers' requirements and the social demand of society (deadline until January 1, 2023).

- Develop and include in the development plan of the EP measures to prepare students for the procedure of professional certification in the field of nanotechnology by industry (chemical sciences, physics) ((term until January 1, 2023) (for EP 8D07114 "Nanomaterials and Nanotechnologies").

EEC conclusions by criteria:

According to the standard "Development and approval of educational programs" EP 6B07115 Technological machines and equipment (by industry), 12 criteria are disclosed, of which: all 12 have a satisfactory position.

EEC conclusions by criteria:

According to the standard "Development and approval of educational programs" EP 6V07305 Transport construction, 7M07320 Transport construction, 12 criteria are disclosed, of which: 2 have a strong position, 10 have a satisfactory position.

EEC conclusions by criteria:

According to the standard "Development and approval of educational programs" EP 8D07114 Nanomaterials and Nanotechnologies, 12 criteria are disclosed, of which: 10 have a satisfactory position, 2 - suggest improvement.

6.4. Standard "Continuous monitoring and periodic evaluation of educational programs"

✓ *The PA should determine the mechanisms for monitoring and periodically evaluating the EP to ensure the achievement of the goal and meeting the needs of students, society, and show the focus of the mechanisms on the continuous improvement of the EP.*

✓ *Monitoring and periodic evaluation of the EP should include:*

✓ *the content of the programs in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline taught;*

✓ *changes in the needs of society and the professional environment;*

✓ *workload, progress and graduation of students;*

✓ *the effectiveness of student assessment procedures;*

✓ *expectations, needs and satisfaction of students;*

✓ *educational environment and support services and their compliance with the objectives of the EP.*

✓ *The management of the EP must demonstrate a systematic approach in monitoring and periodically assessing the quality of the EP.*

✓ *EO, management of the EP should determine a mechanism for informing all interested parties about any planned or undertaken actions in relation to the EP.*

✓ *All changes made to the EP must be published.*

Evidential part

KazNRTU named after K. I. Satbayev has developed and operates a mechanism for continuous monitoring and periodic evaluation of the quality of EP, which are carried out by the structural divisions of the university: departments, dean's office, department of academic policy and management of educational programs, educational and methodological council, internal audit service. This process includes: a survey of students, graduates, teachers, employers; analysis of the assessment system and student performance; analysis of resource and information support of the EP; assessment of the level of competence of teaching staff; the degree of compliance of the EP with the established requirements.

The revision of the EP is carried out without fail once a year, taking into account changes in the labor market, the needs and proposals of different groups of stakeholders, the latest achievements of science in specific disciplines. Participation in the development of the processes of evaluation, analysis and continuous improvement of the EP is regulated in the job descriptions of teachers and staff.

The evaluation of the quality of the EP implementation is carried out within the framework of the general system of monitoring the quality of education, which consists in assessing the management of the EP (the level of the teaching staff, the organization of the educational process, regular assessment of the level of achievement of the goals of the program, the demand for graduates), the implementation of the EP (curriculum, standard programs of disciplines, methodological and information support, infrastructure, educational technologies, research), the results achieved by students in the development of the EP (intermediate certification, final certification, certification of all types of practice). At the departments, the evaluation of the effectiveness of the implementation of the EP is carried out by control visits to classes, analysis of reviews from external leaders of practices, conclusions of the chairmen of state attestation commissions, reviewers of theses.

Familiarization of all interested parties (graduates, students, teaching staff of the department) is carried out at meetings of the departments, during seminars, when signing educational programs. During the meetings, employers confirm their participation in the development and subsequent analysis of the EP.

The results of monitoring the quality of the implementation of the EP are drawn up in the form of analytical reports, reports and are considered at meetings of the academic council of the university. The organization of monitoring procedures within the framework of the EP assessment is planned. The results of quality monitoring are considered in the context of taking preventive and corrective actions.

KazNRTU traces the participation of students, employers and other stakeholders in the revision of EP 6B07115 "Technological machines and equipment (by industry)", 6B07305 "Transport construction", 7M07320 "Transport construction", 8D07114 "Nanomaterials and nanotechnologies" based on satisfaction surveys, involvement in the work of collegiate bodies and other forms and types of activities.

Examples of informing about any planned or taken actions in relation to the EP are mainly limited to the use of e-mail of the CSP. Wide informing of all interested parties is not provided, and the publication of changes to the EP.

The university in its activities seeks to consider changes in the labor market, the requirements of employers and the social demand of society, including for the revision of the EP.

Analytical part

The EEC notes that the university provides a revision of the content and structure of educational programs with the participation of employers. This was also confirmed during a visit to the departments of EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies and analysis of the submitted documents.

The content of the EP is developed in the light of the latest scientific achievements, which ensures the expectation and needs of students. In the course of regular monitoring and periodic evaluation of the EP, the EP management considers changes in the labor market, the requirements of employers and the social demand of society.

Also, members of the EEC note that in the course of regular monitoring and periodic evaluation of accredited EPs, the university assesses the workload, academic performance and graduation of students, which is confirmed by the content.

To obtain an objective assessment in the learning process, teaching staff use various methods to control the knowledge of trainees.

The PA seeks to ensure the participation of students, employers and other stakeholders in the revision of the EP based on satisfaction surveys, involvement of collegiate bodies and other forms and types of activities.

Informing about any planned or taken actions in relation to the EP is limited, wide information is not provided.

At the same time, the EEC notes that it is necessary to ensure constant and timely informing of students, teaching staff, employers through various communication channels about all the changes made in the EP. Ensure accessibility to all materials related to the development of EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies.

EEC notes that the laboratory and technical base of the department "Materials Science, Nanotechnology and Engineering Physics" is satisfactory. At the time of the EEC visit, the Department of Materials Science, Nanotechnologies and Engineering Physics according to EP 8D07114 Nanomaterials and Nanotechnologies demonstrated the available equipment in the laboratory. However, it is necessary to expand the base with modern equipment for conducting scientific research of doctoral students in the areas: Nanomaterials and Nanotechnologies (Chemical Sciences) and Nanomaterials and Nanotechnologies (Physics).

Strengths/best practice for EP 6B07115 Technological machinery and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The EO has developed a procedure for continuous monitoring of the EP and provides for a mechanism for reviewing the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society, regular monitoring and periodic evaluation of the EP is also carried out, the workload, progress, graduation of students and the effectiveness of evaluating learning outcomes are taken into account.

EEC recommendations for EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop a regulation with the establishment of the procedure and terms for posting information on the university website for any changes made to educational programs by October 1, 2022, also ensure the openness of the planned or taken actions in relation to the EP, wide informing all interested parties using modern and traditional means of communication.

EEC conclusions by criteria:

According to the standard "Continuous monitoring and periodic evaluation of educational programs" according to EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies, 10 criteria are disclosed, of which: all 10 have a satisfactory position.

6.5 Standard "Student-Centered Learning, Teaching and Assessment"

✓ *The management of the EP should ensure respect and attention to different groups of students and their needs, provide them with flexible learning paths.*

✓ *The management of the EP should provide for the use of various forms and methods of teaching and learning.*

✓ *An important factor is the presence of own research in the field of teaching methods of academic disciplines of the EP.*

✓ *The management of the EP should demonstrate the existence of feedback mechanisms on the use of various teaching methods and the assessment of learning outcomes.*

- ✓ *The management of the EP must demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher.*
- ✓ *The management of the EP must demonstrate the existence of a procedure for responding to complaints from students.*
- ✓ *The PA must ensure the consistency, transparency and objectivity of the mechanism for evaluating learning outcomes for each EP, including appeal.*
- ✓ *The PA must ensure that the procedures for assessing the learning outcomes of students of the EP correspond to the planned results and goals of the program, the publication of criteria and assessment methods in advance.*
- ✓ *The PA should define the mechanisms to ensure the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation.*
- ✓ *Assessors should be proficient in modern methods of evaluating learning outcomes and regularly improve their skills in this area.*

Evidential part

At KazNRTU, it creates conditions for the implementation of the principles of student-centered learning, ensuring respect and attention to various groups of students and their needs: providing flexible learning paths; the use of various forms of teaching; regular feedback on the techniques and methods used to evaluate and adjust pedagogical methods; support for learner autonomy with proper guidance and assistance from the teacher; strengthening mutual respect between teacher and student; the existence of appropriate procedures for responding to student complaints.

Students of educational programs 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies are the main consumers of these educational programs. When implementing the educational process, the needs of various groups of students are taken into account: foreign citizens, people with disabilities and socially unprotected students.

The interests of students, their individual abilities and capabilities are fundamental in ensuring the educational process. In the course of mastering the educational program, the student independently forms an individual learning path based on the working curriculum for the educational program and the Catalog of elective disciplines (modules). The student chooses the required number of compulsory and elective disciplines (modules), which are reflected in the individual curriculum (IC). The student is responsible for compiling the IEP and the completeness of mastering the course of study in accordance with the requirements of the working curriculum of the educational program.

Students of accredited educational programs, together with advisors, form an IEP based on a working curriculum. Meetings are held with students, where elective disciplines and learning paths are presented.

The University takes into account the needs of different groups of students, regardless of the language of instruction, such as: duration of study depending on basic education (general secondary, technical and vocational, post-secondary, higher education), individual training schedule for health reasons of students, providing the possibility of early delivery examination session, or its extension for a good reason, etc. Inclusive education is a process that provides equal access to education for all students, taking into account special educational needs and individual opportunities.

At the university, it provides educational and methodological assistance to students through consultations with teachers using Internet technologies. Provision of persons with disabilities with specialized educational resources is carried out taking into account the possibility of providing educational material in various forms.

In order to enhance the cognitive activity of students, to actively involve them in the educational process, interactive methods and principles of teaching are widely introduced at the university.

At the university, the teaching staff of accredited educational programs pays attention to the development and implementation of educational innovations, however, there are no publications and other evidence of research results in the field of teaching methods.

The management of accredited EPs provides a feedback system on the use of various teaching methods and evaluation of learning outcomes.

The results of the survey on the satisfaction of the teaching staff are also discussed by the university management, appropriate corrective actions are taken, in addition, problematic issues are discussed during meetings of the administration with the teaching staff.

Student-centered learning allows you to realize the personal and creative potential of students. So, students of the EP attend classes of creative circles and sports sections. Students take part in republican and international conferences, ongoing research and development competitions, university events.

In the NJSC "KazNRTU named after. K.I. Satbayev", the consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including the appeal, are also ensured. The assessment of students' educational achievements is carried out on the basis of a point-rating letter system, according to which the student's final grade for the semester in each discipline is derived based on the summation of the rating points received by him in all control activities in this discipline during the semester (current and boundary control) and passing the final control (exam). At the same time, 60% of the final grade falls on the current and boundary control, 40% - on the exam assessment.

The university has determined the mechanisms for ensuring the development of learning outcomes by each EP graduate and ensured the completeness of their formation.

The leadership of the EP monitors the progress of a student along the educational trajectory by monitoring the results of passing examination sessions, the results of defending reports on professional practices.

Monitoring of professional activity and career growth of graduates is carried out by the Departments together with the Department of Corporate Development and Employment of Graduates.

The university maintains contact with graduates of past years in order to track the achievements of graduates, control their employment and career success.

The university pays great attention to the issues of professional development of teaching staff and staff.

It should be noted that the professional potential of a teacher is also assessed by publications, public recognition and creative activity.

Analytical part

Analysis of the standard "Student-centered learning, teaching and assessment" showed that the university pays considerable attention to various groups of students and taking into account their specific needs, appointed persons are involved in the work, students have an influence on the formation of an educational trajectory in accordance with special needs.

Provide conditions for the implementation of the principles of student-centered learning, based on respect and attention to various groups of students and their needs, as reflected in the self-assessment report.

Guideline EP 6B07115 Technological machines and equipment (by industry)", 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies, when organizing the educational process, takes into account the special needs of

adults, working, foreign students, as well as students with disabilities, creating appropriate conditions for them .

Students are given the opportunity to participate in the formation of their educational trajectory and influence the quality of the educational process.

When grading, attendance, the level of activity in class, the timely and independent completion of all types of tasks, the ability to correctly formulate a problem, and find answers are taken into account.

At the Department of Materials Science, Nanotechnology and Engineering Physics, according to the accredited EP 8D07114 Nanomaterials and Nanotechnology, there are about 4 manuals and textbooks written by the teachers of the department, which requires the need to expand the writing of textbooks and textbooks.

The university has implemented a student support system that allows the graduate to master the learning outcomes in full.

At the same time, members of the EEC note that innovations in the field of teaching special academic disciplines of accredited EPs are not used enough in the educational process.

The survey conducted during the visit of the EEC IAAR showed that students express full and partial satisfaction with:

- teaching methods in general - 62.2%;
- the level of teaching quality - 64.9%;
- fairness of examinations and attestation - 75.7%;
- conducted tests and exams – 78.4%.

Strengths/best practice for EP 6B07115 Technological machinery and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Students are given the opportunity to participate in the formation of their educational trajectory and influence the quality of the educational process.

- The presence of a student support system that allows the graduate to master the learning outcomes in full.

EEC recommendations for EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop and approve a plan for conducting their own research in the field of teaching methods of academic disciplines of the EP, conduct internal monitoring of the use of various forms and methods of teaching and learning. Deadline: December 1, 2022.

- Guidelines for EP 8D07114 Nanomaterials and Nanotechnologies to expand the writing of textbooks and textbooks by teachers of the Department of Materials Science, Nanotechnology and Engineering Physics by September 2025.

EEC conclusions by criteria:

According to the standard "Student-centered learning, teaching and performance assessment" according to EP 6B07115 Technological machinery and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 10 criteria are disclosed, of which: 1 has a strong position, 9 - a satisfactory position.

EEC conclusions by criteria:

According to the standard "Student-centered learning, teaching and performance assessment" according to EP 8D07114 Nanomaterials and Nanotechnologies, 10 criteria are disclosed, of which all 10 have a satisfactory position.

6.6. Standard "Students"

✓ *The PA must demonstrate the existence of a policy for the formation of a contingent of students in the context of the EP, ensure transparency and publicity of its procedures governing the life cycle of students (from admission to completion).*

✓ *The management of the EP should determine the procedure for the formation of a contingent of students based on:*

- ✓ *minimum requirements for applicants;*
- ✓ *the maximum size of the group during seminars, practical, laboratory and studio classes;*
- ✓ *predicting the number of state grants;*
- ✓ *analysis of available material and technical, information resources, human resources;*
- ✓ *analysis of potential social conditions for students, incl. provision of places in the hostel.*
- ✓ *The management of the EP must demonstrate readiness to conduct special adaptation and support programs for newly enrolled and foreign students.*

✓ *The PA must demonstrate the compliance of its actions with the Lisbon Recognition Convention, the existence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education.*

✓ *The PA should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers" ENIC/NARIC in order to ensure comparable recognition of qualifications.*

✓ *The PA should provide an opportunity for external and internal mobility of students of the EP, as well as readiness to assist them in obtaining external grants for training.*

✓ *The management of the EP must demonstrate readiness to provide students with places of practice, to promote the employment of graduates, to maintain contact with them*

✓ *The PA should provide for the possibility of providing EP graduates with documents confirming the qualifications received, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion*

Evidential part

The management of the EP demonstrates the policy of forming a contingent of EP students from admission to graduation and ensures the transparency of its procedures.

To form a contingent of students, the teaching staff of the department conducts career guidance in secondary schools, in organizations of secondary specialized education in the city of Almaty in other regions of Kazakhstan. The policy of forming a contingent of students is consistent with the mission, vision, strategic goals of the university and is published on the university website (<https://satbayev.university.ru>).

The university does not impose additional conditions on applicants. The formation of the student body is carried out at the expense of state educational grants and by paying for education at the expense of citizens' own funds and other sources.

The policy of forming a contingent of students at AlmaU is systemic and is carried out throughout the academic year.

Information stands and social networks are used to inform applicants. On the official Internet resource of the university (<https://satbayev.university.ru>), they can get acquainted with the conditions for further admission to the university, the features of the programs, and they can also get information about the specialties of the university.

EEC members confirm that the policy of forming a contingent of students is transparent, and the procedures governing the life cycle of education are approved and presented on the university website.

Manual of educational programs 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials

and nanotechnologies determine the procedure for teaching students at the University on credit technology, regulate the procedure for registering students for academic disciplines, conducting current, intermediate and final controls, final certification, organization of students' internships, translation, restoration, expulsion, assessment of students' knowledge, etc.

For the adaptation of students enrolled in the 1st year, at the beginning of the academic year, an orientation week is held, where students are introduced to the organization of the educational process, the requirements and rules of the internal regulations, academic honesty and safety, the areas of work of educational activities are presented, students receive a "Freshman's Guide" ", the content of which is updated and supplemented annually ([https://satbayev.university.ru/freshman guid](https://satbayev.university.ru/freshman%20guid)).

Foreign students studying in the framework of academic mobility programs (exchange) and studying in the format of four years (full-time) study at KazNRTU. Foreign students during the entire period of study are supervised by employees of the Department of International Cooperation.

The selection of applicants for foreign academic mobility within the framework of the Erasmus + program is carried out by the commission of the university, which includes the Directors of the Institutes, the Director of the HR service, employees of the Department of International Cooperation based on the application of students.

Heads of the department EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnology throughout the entire period of study provides consultations for students. According to the EP, an adviser is appointed by order of the rector of the university, who helps first-year students in adapting to the educational process at the university, in choosing an educational trajectory and monitors the entire process of students' educational achievements. First-year students receive information and consultations about the peculiarities of the educational process at the university from advisors of academic groups who explain the main policy intended for students, the requirements for exams, the rules for retaking disciplines, procedures for expressing complaints, etc.

The university is an adherent of the Lisbon Convention on the Recognition of Qualifications. Upon admission to study at KazNRTU, the nostrification of documents about the previous foreign education is mandatory. University staff assists the student in collecting documents for filing for nostrification. The mechanism for recognizing the results of non-formal and formal learning at the university is carried out in accordance with the procedures described in the Regulation on the implementation of non-formal and formal online learning.

Recognition of periods of study and credits for academic mobility is carried out by comparing the content and labor intensity of academic disciplines and practices by structural units based on conversion factors (ECTS). The University has more than 150 existing agreements with universities in Europe, Asia, the CIS, the USA, Australia and Kazakhstan.

To ensure the academic mobility of the EP, students are given the opportunity to study certain disciplines in other educational institutions of the Republic of Kazakhstan, with which there is a bilateral agreement between universities.

Satisfaction monitoring based on the results of the practice is carried out in the form of an analysis of the reporting documentation of students, reports of methodologists and practice leaders, protocols of final meetings of methodologists, reviews of leaders of practice bases, requests from organizations and schools, visits to practice bases by the head of the professional practice of the university.

The university has created favorable conditions for the harmonious and creative development of students, holding cultural and sports events, and volunteering. Every year, for academic excellence and active participation in the public life of the university, students from among the excellent students, winners of international and republican Olympiads, amateur art festivals; student self-government activists and student-athletes are awarded with diplomas and cash prizes.

The management of the EP invites new employers, organizes meetings with them, and concludes agreements on social partnership. An open day is systematically held, a job fair is held with the involvement of all business partners of the university. According to survey results, most employers highly appreciate the level of professional training of graduates studying in accredited specialties.

For the successful employment of graduates 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies, conditions are provided for the successful completion of industrial practice by students both in methodological support and in moral support, and as a result, after the internship many students already at this stage are employed in these companies.

On the website of the university, a special section of Alumni Satbayev University is dedicated to graduates. Information about university graduates is periodically consecrated in the social networks of the university.

According to the survey data, students express complete satisfaction with the availability of academic counseling (78.4%); the quality of the student health service (75.7%); availability of library resources (78.4%); existing learning resources (86.5%); overall quality of curricula (75.7%); relationship between student and teacher (83.8%).

Analytical part

Analyzing the “Students” standard, the members of the EEC came to the conclusion that the university demonstrated the policy of forming a contingent of students and the transparency of its procedures. Surveys of the formation of the contingent and the results of admission are considered at meetings of the department and the Academic Council of the University. The members of the commission were convinced that the university carried out systematic career guidance aimed at forming a high-quality contingent of students.

The university has a good material and technical base and sufficient infrastructure, the necessary conditions have been created for students to receive high-quality knowledge and comprehensive development. However, members of the EEC note the insufficient level of involvement of students in SRW, as one of the directions in the development of intellectual potential.

The University positions the compliance of its actions with the Lisbon Recognition Convention, internal regulatory documents have been developed on the procedure for recognizing courses and credits mastered by students within the framework of academic mobility. At the same time, work on recognizing the results of additional, formal and non-formal education has been set at an insufficient level.

Students have the right to take part in academic mobility programs. To date, there are agreements on mutually beneficial cooperation in the field of academic mobility of students and teaching staff. However, not enough work is being done on the academic mobility of students and undergraduates by accredited EPs.

The management of the EP has demonstrated the implementation of special adaptation programs, actively encourages students to self-educate.

The information presented in the self-report in the context of this standard was mainly confirmed during the EEC visit.

The University cooperates with other educational organizations on academic mobility, provides students with internships, promotes the employment of graduates.

Strengths/best practice for EP 6B07115 Technological machinery and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The management of the EP has demonstrated its readiness to conduct special adaptation and

support programs for newly enrolled and foreign students.

EEC recommendations for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Graduating departments for each of the accredited EPs to develop and implement a plan for the development of academic mobility of students for the short-term (2022-2023 academic year) and long-term perspectives (until 2025-2026 academic year).

- Develop and approve at the university level the Regulation on the recognition of previous results of additional and non-formal learning not only in online format. Deadline: December 1, 2022.

- EO and management of EP 8D07114 Nanomaterials and Nanotechnologies to develop a long-term (for a period of 5 years) and a short-term (for the 2022-2023 academic year) career guidance plan, taking into account the need to attract applicants from other regions and countries. Deadline until August 1, 2022

EEC conclusions by criteria:

According to the standard "Students" according to EP 6B07115 Technological machines and equipment, 8D07114 Nanomaterials and nanotechnologies, 12 criteria are disclosed, of which: all 12 have a satisfactory position.

EEC conclusions by criteria:

According to the standard "Students" according to EP 6B07305 Transport construction, 7M07320 Transport construction, 12 criteria are disclosed, of which: 1 have a strong position, 10 - a satisfactory position, 1 - suggests improvement.

6.7. Standard "Teaching Staff"

✓ *The PA must have an objective and transparent personnel policy, including in the context of the EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.*

✓ *The PA must demonstrate the compliance of the staff potential of the teaching staff with the specifics of the EP.*

✓ *The management of the EP must demonstrate awareness of responsibility for its employees and provide them with favorable working conditions.*

✓ *The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning.*

✓ *The PA should determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the PA, and other strategic documents.*

✓ *The PA should provide opportunities for career growth and professional development of the teaching staff of the EP.*

✓ *The management of the EP must demonstrate readiness to involve practitioners in the relevant sectors of the economy in teaching.*

✓ *The PA must demonstrate the motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods.*

✓ *An important factor is the willingness to develop academic mobility within the EP, to attract the best foreign and domestic teachers.*

Evidential part

The University implements personnel policy in accordance with the main priorities of its strategy. For the teaching staff, conditions are created for the effective work of teachers and university staff, educational and academic activities are stimulated, and their professional qualifications are improved.

The qualitative and quantitative composition of the teaching staff ensures the implementation of the entire range of educational programs. At the time of the visit of the EEC, the total composition of the teaching staff of the departments: "Materials Science, Nanotechnology and Engineering Physics" is engaged in: a total of 9 teachers, including: 1 doctor of science; 3 PhDs; 2 candidates of sciences, 3 masters. The degree of teaching staff is 66%. The graduation of specialists at the Department of Construction and Building Materials is carried out by: a total of 10 teachers, including: 1 doctor of science; 7 candidates of sciences, 1 masters. The degree of teaching staff is 80%. The following specialists are engaged in the release of specialists at the department "Technological Machines and Transport": a total of 27 teachers, including 4 doctors of science; 8 PhDs, 3 PhDs. The degree of full-time teaching staff is 78.6%.

The management of the EP demonstrates the application of the personnel policy of the university in accordance with the current labor legislation of the Republic of Kazakhstan and the Rules for the competitive replacement of positions of teaching staff and researchers of higher educational institutions.

The personnel policy of the university reflects institutional procedures in relation to teaching staff and staff (hiring, promotion, promotion, reduction, dismissal; rights and obligations, job descriptions), its availability for teaching staff and staff, which are reflected in internal regulations .

Recruitment is carried out on the basis of an analysis of the needs of the educational program, based on the results of which a competition is announced for filling vacant positions. The assessment of the competence of teachers at the university to establish compliance with the position held is carried out by passing the competitive replacement of positions of the teaching staff and certification by staff members, in accordance with the requirements of the competitive commission and in accordance with the current legislation of the Republic of Kazakhstan.

The University constantly evaluates the activities of teachers through planned certification, control visits to classes, planned sociological surveys, thereby ensuring that the staff potential of the teaching staff is consistent with the development strategy of the university and the specifics of the EP. The attestation mechanism developed at the university allows for a comprehensive assessment of the activities of teachers in the context of their functional duties.

Members of the EEC note that the university has created a comfortable psychological microclimate in the team and favorable conditions for the work of teaching staff.

In connection with the transition to student-centered teaching, teaching staff EP 6B07115 "Technological machines and equipment (by industry)", 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies use active forms of education, with an emphasis on critical and analytical study and understanding of disciplines, which in turn, it increases the responsibility in studying courses on the part of students and undergraduates. At the meeting of the Council of the Institute, the issues of the role of the teacher in connection with the transition to student-centered learning and teaching are discussed.

To improve the quality of teaching, to ensure a close relationship with production, specialists with experience in relevant industries are involved in the educational process.

In the course of interviews with teaching staff, EEC members found that 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. Annually for young teachers it is planned to enter the magistracy and scientific internships in foreign universities. In order

to provide methodological assistance to young teachers, a mentoring program is used from among the leading teachers of the department.

The university provides opportunities for career growth and professional development of teaching staff, including young teachers.

The management of the EP ensures the completeness and adequacy of the individual planning of the work of the teaching staff for all types of activities, monitoring the effectiveness and efficiency of individual plans, evidence of the fulfillment by teachers of all types of planned workload has been demonstrated.

The teaching staff of the department "Technological Machines and Transport" is actively engaged in research work, for 2018-2020 4 projects of the Global Fund, 1 - PCF and 1 - R&D were completed. At present, professor Zaurbekov S.A., lecturer Myrzakulov M.K. and doctoral students Sarybaev E.E. and Balgaev D.E. the GF project is being implemented for a total amount of 64.6 million tenge. Assoc. professor of the department Yelemesov K.K. is the executor of a scientific project within the framework of a World Bank grant for 250 million tenge. There is also a commercial contract with JSC NAC "Kazakhstan temir zholy" senior lecturer of the department Baskanbayeva D.D. for a total amount of 11 million tenge.

The teaching staff of the department "Materials Science, Nanotechnology and Engineering Physics" is actively engaged in research work, in 2017-2022, 8 projects of the Global Fund, 3 - PCF and 1 were completed.

Teaching staff of graduating departments periodically, at least once every three years, take refresher courses both in Kazakhstan and abroad.

Thus, the teachers of the department "Materials Science, Nanotechnology and Engineering Physics" D. Smagulov, U. Kakimov, S. Azat, A. Kemelbekova, B. Baitimbetova completed advanced training courses (Self-assessment report, Appendix 10, p.13-22).

The management of the EP is working to involve in teaching activities from production, from employers, from the enterprise where students undergo internships: LLP "Physico-Technical Institute", NCKIT, JSC "AZTM", LLP "Kazferrostal", LLP "Burmash" and others.

Analytical part

Based on the results of the analysis of the "Teaching staff" standard, the EEC notes the existence of an objective personnel policy, the staffing of educational programs being implemented by qualified specialists, the compliance of the personnel potential of the teaching staff with the strategy of the university and the specifics of the EP.

Experts note that the university monitors the activities of teaching staff, documents have been developed that regulate and reflect the assessment of the quality of teaching. The results of sociological research are considered at meetings of the Academic Council of the University, decisions are made on corrective measures.

At the same time, attention is drawn to the insufficiently high level of academic mobility of teachers, attracting the best foreign and domestic teachers to conduct joint scientific research. In this regard, the management needs to increase the level of academic mobility of the teaching staff of EP 6B07115 "Technological machines and equipment (by industry)", 8D07114 Nanomaterials and nanotechnologies and participation in funded domestic and foreign scientific projects EP 6B07305 Transport construction, 7M07320 Transport construction.

In the course of visiting the university and interviewing the teaching staff, it was found that the university provides opportunities for career growth and professional development of the teaching staff of the EP.

Teachers involved in the implementation of accredited EPs take an active part in various public, scientific, methodological, cultural and other events of the region and the Republic.

Teaching staff of accredited EPs participate in international and domestic competitions for targeted funding of research projects, where grant holders are other organizations of the Republic of Kazakhstan. In this regard, there is a need to apply for grant funding for teaching staff of accredited EPs on behalf of KazNRTU named after Satbayev.

EEC members note that the availability of academic mobility of teaching staff within the framework of the EP will improve the quality of educational services provided, provide an opportunity for young teachers to gain scientific experience in leading foreign universities and universities of the Republic of Kazakhstan. However, the management of the EP did not provide information on outgoing academic mobility of teaching staff.

According to the results of the survey of teaching staff, accredited EPs are evaluated as "very good" and "good":

- involvement of teaching staff in the process of making managerial and strategic decisions - 28.2% and 59.2%;
- encouragement of innovative activity of teaching staff - 28.2% and 60.6%;
- providing an opportunity for continuous development of the potential of teaching staff - 33.8% and 57.7%.

express their full satisfaction:

- participation in making management decisions - 53.5% and 28.2%.
- the activities of the university administration - 60.6% and 32.4%;
- wage conditions - 39.4% and 43.7%;
- work on academic mobility - 25.4% and 57.7%.

Best practice for EP 6B07115 Technological machinery and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The management of the university provides targeted actions to provide opportunities for career growth and professional development of the teaching staff of the EP.
- The involvement of teaching staff in the social life of the region in accordance with their professional activities.

EEC recommendations for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop an action plan for the development of academic mobility of teaching staff with the establishment of partner universities, the term for language training of teaching staff (for foreign universities) and the period of internships. Deadline is December 1, 2022.
- Based on the analysis of the strategic guidelines of the university, the results of the implementation of educational programs and trends in the scientific and technical industry, attracting the best foreign and domestic teachers to conduct joint scientific research from leading universities in Kazakhstan and foreign educational institutions of higher education.
- To ensure the participation of teaching staff and students in international and domestic competitions for grant and targeted funding of research projects, as well as in the implementation of projects on an economic contract basis. Deadline September 1, 2023

EEC conclusions by criteria:

According to the standard "Teaching staff" according to EP 6B07115 Technological machines and equipment, 9 criteria are disclosed, of which: 1 have a strong position, 7 - a satisfactory position, 1 - suggests improvement.

EEC conclusions by criteria:

According to the standard "Teaching staff" according to EP 6B07305 Transport construction, 7M07320 Transport construction, 9 criteria are disclosed, of which: 1 have a strong position, 8 have a satisfactory position.

EEC conclusions by criteria:

According to the standard "Teaching staff" in EP 8D07114 Nanomaterials and Nanotechnologies, 9 criteria are disclosed, of which: 1 have a strong position, 8 have a satisfactory position.

6.8. Standard "Educational resources and student support systems"

✓ *EO must guarantee a sufficient number of educational resources and student support services to ensure the achievement of the goal of the EP.*

✓ *The PA must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of the EP (adults, working, foreign students, as well as students with disabilities).*

✓ *The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling.*

✓ *The management of the EP must demonstrate the compliance of information resources with the specifics of the EP, including:*

✓ *technological support for students and teaching staff (for example, online learning, modeling, databases, data analysis programs);*

✓ *library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases;*

✓ *examination of the results of research, final works, dissertations for plagiarism;*

✓ *access to educational Internet resources;*

✓ *WI-FI functioning on the territory of the educational organization.*

✓ *EO demonstrates the planning of providing the EP with educational equipment and software similar to those used in the relevant sectors of the economy.*

Evidential part

In the course of 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 realizing the mission, goals and objectives of NJSC "KazNRTU named after K.I. Satbayev".

An important factor in ensuring the quality of education and guaranteeing the sustainable development of the university is the constant improvement of material, technical and human resources. The university has created conditions for students, conducting scientific research, and publishing research results.

KazNRTU them. K.I. Satbayev has modern and sufficient resources to ensure the educational process for accredited programs.

The University has 5 Reading Rooms of the Scientific Library, which are equipped with 90 single-block computers with a widescreen 23 diagonal with anti-reflective coating, high performance and fast Internet access, to ensure maximum comfort for readers, as well as 37 computer classes with 491 computers, of which 364 are high-performance graphics stations from a well-known premium brand.

The material and technical support of the educational process as a whole corresponds to the tasks and specifics of the EP, and also contributes to the conduct of all types of laboratory, practical classes, research work, provided for by the working curricula corresponding to the current sanitary and fire safety norms and rules.

The library of the university provides access to international databases: Web of Science, Scopus, Science Direct, InCites, to the products of the Elsevier and Clarivate Analytics publishing houses. To remote network licensed Electronic Library Systems (ELS): RMEB, IPRbooks, Yurayt, Polpred, to a large number (about 100) of open up-to-date information resources: <http://e.lib.satbayev.university/MegaPro/Web>. Students, teaching staff and university staff have unlimited access to information and educational resources and electronic library systems necessary to carry out independent educational and research work. The information support of the university meets the requirements of the EP, the library contains the materials necessary for training: educational, technical, reference and general literature, various periodicals. The fund of the electronic library of the university provides access to 15,000 units of electronic information in the areas of educational programs.

The electronic catalog (EC) of the library was created on the basis of the automated library system "MegaPRO" - a new generation web-system built on the basis of "cloud" technologies. All services for readers are available both on a regular computer and in the mobile version of the "Electronic Library" module, adapted for mobile devices.

The total volume of the electronic catalog (since 1998) is 174773 b/c, including: 109916 b/c. educational and scientific literature (1,263,553 copies); 2571 e-books; 57,550 non-binding articles and 4,736 non-binding other types of literature.

The territory of the university is equipped with free WI-FI.

The Commission found that specialized classrooms have appropriate educational and laboratory equipment. In terms of equipment and sufficiency, the classroom fund, in general, corresponds to the goals of the university's educational programs, which was also confirmed during the student survey (more than 78% indicated complete satisfaction with the availability of library resources, available computer classes, classrooms and laboratories).

Analytical part

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

The available classroom fund (lecture halls, specialized laboratories, computer classes) Departments of EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnology provides the need for students of accredited EPs in classrooms.

As a result of the analysis of the activities of the accredited EPs according to this standard, it can be concluded that an assessment was made of the completeness and availability of the material, technical and information resources specified by the EP. There is a dynamics of resources and the learning environment, library support for the educational process, the activities aimed at improving the resource support for the implementation of the EP are highlighted.

There is a fairly good level of information support for educational and scientific-educational activities with access to full-text electronic resources of educational and scientific value, which satisfies the needs of students and teaching staff.

Examination of research, scientific articles of teaching staff and students, written works, diploma projects, master's projects and dissertations are checked for plagiarism by the Antiplagiat - superadmin system.

The university library funds are regularly replenished with new literature, but it does not have enough specialized literature for accredited EPs in the state and English languages.

Experts note that the university has a mechanism for assessing the development of material and technical resources and information support through scheduled reports at meetings of collegial bodies, sociological surveys on satisfaction with the conditions of education.

According to the results of the survey, students are completely satisfied with:

- availability of library resources - 78.4%;
- classrooms, classrooms for large groups - 78.4%;
- rooms for small groups – 81.1%;
- rest rooms for students - 73%;
- computer classes and Internet resources - 86.5%.
- available computer classes - 83.8%;
- scientific laboratories - 54.1%.
- dormitory provision - 37.8%.

Strengths/best practice for EP 6B07115 Technological machinery and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Using the program "(Antiplagiat - superadmin)" to conduct an examination of research work performed by undergraduate students of independent work, incl. graduation projects and master's theses.

EEC recommendations for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

EEC conclusions by criteria:

According to the standard "Educational resources and student support systems" according to EP 6B07115 Technological machines and equipment 8D07114 Nanomaterials and nanotechnologies, 9 criteria are disclosed, of which: all 9 have a satisfactory position.

EEC conclusions by criteria:

According to the standard "Educational resources and student support systems" according to EP 6B07305 Transport construction, 7M07320 Transport construction, 9 criteria are disclosed, of which: 8 have a satisfactory position, 1 - suggests improvement.

6.9. Standard "Public Information"

✓ *The PA must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:*

- ✓ *expected learning outcomes of the implemented educational program;*
- ✓ *qualifications and (or) qualifications that will be awarded upon completion of the educational program;*
- ✓ *approaches to teaching, learning, as well as a system (procedures, methods and forms) of assessment;*
- ✓ *information about passing scores and learning opportunities provided to students;*
- ✓ *Information about employment opportunities for graduates.*
- ✓ *The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties.*

- ✓ *Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education.*
- ✓ *EO must demonstrate the reflection on the web resource of information that characterizes it as a whole and in the context of educational programs.*
- ✓ *An important factor is the availability of adequate and objective information about the teaching staff of the EP.*
- ✓ *An important factor is informing the public about cooperation and interaction with partners within the EP*

Evidential part

NJSC "KazNRTU named after K.I. Satbayev" strives to carry out its activities on the basis of the principles of transparency, openness, involvement and public awareness.

When conducting an assessment in relation to the "Informing the Public" standard, EEC experts studied the materials and documents presented in the University self-assessment report, as well as information posted on the official website <https://official.satbayev.university/ru/2-uroven-dp-kaznitu> , publication of accounts in social networks and mass media.

The university, in addition to the official website, uses various information channels for its promotion and positioning, for example, through social networks: Instagram https://www.instagram.com/satbayev_university/ , Facebook <https://www.facebook.com/satbayevuniversity> , VK <https://vk.com/satbayevuniversity> , Telegram https://t.me/Satbayev_University_Official , LinkedIn <https://www.linkedin.com/school/1048308/admin/> , 132 Twitter https://twitter.com/NITU_Satpaev , YouTube <https://www.youtube.com/channel/UCzpfUbR-imEHLhOX9tnKEg> , TikTok https://www.tiktok.com/@satbayev_official?lang=en , Google buisusnes https://business.google.com/u/2_/posts/1/13945254457139118465 , on partner websites and social networks.

The media and electronic publications used by the university include the Republican newspaper "Kazakhstanskaya Pravda", Forbes Kazakhstan, Egemen Kazakhstan, ExpressK, Tengrinys, Nur.kz and other respected publications.

The main channel for informing the public (applicants, their parents, students, graduates and employers) is the official website of the university satbayev.university, (presented in Kazakh, Russian and English), which is intended for both external and internal use.

Information about ongoing educational programs is indicated on the pages of the faculties and the school of the official website of Satbayev University. Also, information about the programs is reflected in the official booklets. Every year, during the selection committee, information about training programs is provided on social media channels. Information about the qualifications awarded is indicated in the description of the program through all channels: on the website of Satbayev University, in the profile of each program, on the annually updated page of the Admissions Committee, on published booklets.

Details of the teaching, learning, and assessment procedures are reflected in the Academic Policy, the Handbook, and explained in the profile of each program, individual videos posted on social media, and publicly available syllabuses on the internal notification system.

To inform applicants, information stands, posters, banners are placed in all buildings of the university. On a regular basis, an "Open Doors Day" is held.

Analytical part

EEC notes that in the field of information dissemination policy of NJSC "KazNRTU named after K.I. Satbayev" demonstrates the policy of transparency, openness, involvement in informing the

public of applicants, employers, participants in the educational process and all interested parties, continuous development and adaptability to the changing realities of society. Information about the main activities of the university is mainly presented.

At the same time, EEC experts point out that information on some issues, for example, in terms of employment, events with employers, information on practice bases and representatives of employers from among graduates is not presented systematically, mainly by structural divisions, respectively, not in full least reflect the results of the university.

The management of the EP uses the media and social networks to disseminate information.

The study of information about the activities of the graduating departments and the portfolio of teaching staff according to 8D07114 "Nanomaterials and Nanotechnologies" showed that the site provides adequate and objective information about the teaching staff.

Despite the adequate and complete coverage of the activities of the departments on the site, in order to highlight the most important results of research activities and position the university and EP in the international educational space, it is necessary to add the following information: bibliographic descriptions of publications in high-ranking scientific publications (in journals recommended by the Higher Attestation Commission of the Russian Federation; in journals included in international databases (Scopus, Web of Science, etc.)); increase the frequency of updating information about the department; reflect information on the main results of research work on each topic, information on the implementation of the results of research work in educational activities in the context of EP 8D07114 "Nanomaterials and Nanotechnologies".

According to the results of the survey, students are completely satisfied with:

- availability of library resources - 78.4%;
- the usefulness of the website of the university of education in general and faculties in particular - 67.6%;
- informing about courses, educational programs and academic degrees - 83.8%.

Strengths/best practice for EP 6B07115 Technological machinery and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Not found.

EEC recommendations for EP 6B07115 Technological machines and equipment (by industry), 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Carry out work to update both general information on the university website and in terms of ongoing EPs, the department - in the portfolio of the teaching staff, provide bibliographic descriptions of publications in high-ranking scientific publications (in journals recommended by the CSON MOES RK, HAC RF; in journals included in international databases (Scopus, Web of Science, etc.)); increase the frequency of updating information about the department (at least once every six months); reflect information on the main results of research work on each topic, information on the implementation of the results of research work in educational activities in the context of the EP. Deadline January 1, 2023

EEC conclusions by criteria:

According to the standard "Informing the public" according to EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction,

8D07114 Nanomaterials and nanotechnologies disclosed 10 criteria, of which: all 10 have a satisfactory position.

(VII) OVERVIEW OF STRENGTHS/BEST PRACTICE FOR EACH STANDARD

Standard "Management of the educational program"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Openness of the management of the EP for students, teaching staff, employers and other interested parties.
- Participation of teaching staff, students, employers in the collegial management bodies of the EP.

Standard "Information Management and Reporting"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Implementation of an integrated approach to the processing and management of information to improve the internal quality assurance system using modern information and communication technologies;

Standard "Development and approval of the educational program"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The management of the EP has organized and is conducting an external examination of the content of the EP, the availability of internal regulatory documents that determine the main provisions for the development of the EP and the organization of educational activities.

Standard "Continuous monitoring and periodic evaluation of educational programs"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The PA has developed a procedure for continuous monitoring of the EP and provides for a mechanism for reviewing the content and structure of the EP, considering changes in the labor market, the requirements of employers and the social demand of society, regular monitoring and periodic evaluation of the EP is also carried out, the workload, progress, graduation of students and the effectiveness of evaluating learning outcomes are considered.

Standard "Student-centered learning. Teaching and assessment"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Students are given the opportunity to participate in the formation of their educational trajectory and influence the quality of the educational process.
- The presence of a student support system that allows the graduate to master the learning outcomes in full.

Standard "Students"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction,

7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The leadership of the EP has demonstrated its readiness to conduct special adaptation and support programs for newly enrolled and foreign students.

Standard "Teaching Staff"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- The management of the university provides targeted actions to provide opportunities for career growth and professional development of the teaching staff of the EP;

- The involvement of teaching staff in the social life of the region in accordance with their professional activities.

Standard "Educational resources and student support systems"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Using the program "(Antiplagiat - superadmin)" to conduct an examination of research work performed by undergraduate students of independent work, incl. graduation projects and master's theses.

Standard "Public Information"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Not found.

(VIII) OVERVIEW OF RECOMMENDATIONS TO IMPROVE QUALITY

Standard "Management of the educational program"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Specify and update the development plan for accredited EPs in order to determine their uniqueness and taking into account the priority areas for the development of scientific research for the industries of technological machines, transport construction and in the field of nanotechnology, in accordance with the University Development Strategy and with changes in regulatory legal acts in the higher education system . Deadline is December 1, 2022.

- Ensure the implementation of innovation management functions (planning and forecasting, stimulation, etc.), including educational innovations in the field of technological machines, transport construction and nanotechnology. Deadline is December 1, 2022.

- Develop a procedure for identifying innovations and introducing them into educational activities in the EP "8D07114 - Nanomaterials and Nanotechnologies". Determine the criteria for innovation. Appoint those responsible for identifying innovations, forming, approving, implementing and monitoring the implementation of innovative proposals (deadline until January 1, 2023).

- Guideline EP 8D07114 Nanomaterials and Nanotechnologies needs to assess the main risks of the EP and include in the plan for the implementation and development of the EP activities aimed at managing them. To ensure the recruitment of a high-quality contingent of students at the EP, the management of the EP needs to conduct extensive and systematic career guidance, including in a remote format (until January 1, 2023).

Standard "Information Management and Reporting"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- To provide participants in the educational process with the necessary information, improve the information content of the websites of structural divisions (in particular, the faculty and special departments) presented on the university website according to the levels of education implemented by the EP, expand the personal pages of the teaching staff, heads of the EP, until December 01, 2022.

- Develop, document and include in the information collection and analysis system clear quantitative criteria for assessing the effectiveness and efficiency of activities for the implementation of the EP, as well as include a working curriculum on the website of the university Doctoral Education Programs - Satbayev University (due until January 1, 2023).

Standard "Development and approval of the educational program"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop an action plan for the creation of joint/s educational/s programs with the identification of potential partners among national and foreign universities, the coordination of the structure of the PMM, the preparation of elements of the EP for approval and the start of admission from 2023.

- Revise and approve the content and structure of EP 8D07114 Nanomaterials and Nanotechnologies, considering changes in the labor market, employers' requirements and the social demand of society (due until January 1, 2023).

- Develop and include in the development plan of the EP measures to prepare students for the procedure of professional certification in the field of nanotechnology by industry (chemical sciences, physics) ((term until January 1, 2023) (for EP 8D07114 Nanomaterials and Nanotechnologies).

Standard "Continuous monitoring and periodic evaluation of educational programs"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop a regulation with the establishment of the procedure and terms for posting information on the university website for any changes made to educational programs by October 1, 2022, also ensure the openness of the planned or taken actions in relation to the EP, wide informing all interested parties using modern and traditional means of communication.

- Continue work on the development of the laboratory and technical base of the department "Materials Science, Nanotechnology and Engineering Physics" to solve educational and research problems, including by strengthening cooperation with partner organizations, by September 1, 2023.

Standard "Student-Centered Learning, Teaching and Assessment"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop and approve a plan for conducting their own research in the field of teaching methods of academic disciplines of the EP, conduct internal monitoring of the use of various forms and methods of teaching and learning. Deadline: December 1, 2022.

- Guidelines for EP 8D07114 Nanomaterials and Nanotechnologies to ensure the writing of textbooks and textbooks by teachers of the Department of Materials Science, Nanotechnology and Engineering Physics by September 2025.

Standard "Students"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

Graduating departments for each of the accredited EPs to develop and implement a plan for the development of academic mobility of students for the short-term (2022-2023 academic year) and long-term perspectives (until 2025-2026 academic year).

- Develop and approve at the university level the Regulation on the recognition of previous results of additional and non-formal learning not only in online format. Deadline: December 1, 2022.

- By August 1, 2022, the university and the leadership of EP 8D07114 "Nanomaterials and Nanotechnologies" should develop a long-term (for a period of 5 years) and short-term (for the 2022-2023 academic year) plan for career guidance, considering the need to attract applicants from other regions and countries.

Standard "Teaching Staff"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- Develop an action plan until December 1, 2022 for the development of academic mobility of teaching staff with the establishment of partner universities, the term for language training of teaching staff (for foreign universities) and the period of internships.

- Based on the analysis of the strategic guidelines of the university, the results of the implementation of educational programs and trends in the scientific and technical industry, to involve highly qualified specialists from leading universities in Kazakhstan and foreign educational organizations of higher education in the educational process and conducting joint scientific research.

- Ensure the participation of teaching staff and students in international and domestic competitions for targeted funding of research projects, as well as in the implementation of projects on an economic contract basis. Increase the number of teaching staff publications in journals recommended by the logo

Committee for Quality Assurance in the Sphere of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan and in journals indexed in international databases (Scopus, WoS) in accordance with the requirements for teaching staff positions established by the EO. Deadline September 1, 2023

Standard "Educational resources and student support systems"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

Not available.

Standard "Public Information"

for EP 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and nanotechnologies:

- By January 1, 2023, carry out work to update both general information on the university website and in terms of implemented EPs, departments - in the portfolio of teaching staff, provide bibliographic descriptions of publications in high-ranking scientific publications (in journals recommended by COXON MES RK, HAC Russian Federation; in journals included in international databases (Scopus, Web of Science, etc.)); increase the frequency of updating information about the department (at least once every six months); reflect information on the main results of research work on each topic, information on the implementation of the results of research work in educational activities in the context of the EP.

(IX) OVERVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF EDUCATIONAL ORGANIZATION

Not found.

(X) RECOMMENDATION TO THE ACCREDITATION BOARD

The external expert commission made a unanimous decision to recommend to the Accreditation Council educational programs 6B07115 Technological machines and equipment, 6B07305 Transport construction, 7M07320 Transport construction, 8D07114 Nanomaterials and Nanotechnologies of the Non-Profit Joint Stock Company “Kazakh National Research Technical University named after K.I. Satbayev” to accredit for a period of 5 (five) years.

Appendix 1. Evaluation table "PARAMETERS OF A SPECIALIZED PROFILE (EX-ANTE)"

Conclusion of the External Expert Commission for the Assessment of the Quality of the Educational Program 6B07115 “Technological Machines and Equipment (by Industry)” of the Non-Commercial Joint Stock Company “Kazakh National Research Technical University named after K.I. Satbayev”

№	№	Assessment Criteria	Position of the educational organization			
			strong	Satisfactory	Assumes improvement	Unsatisfactory
Standard "Management of the educational program"						
1	1.	The organization of higher and (or) postgraduate education must have a published quality assurance policy that reflects the relationship between research, teaching and learning		+		
2	2.	The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP		+		
3	3.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility		+		
4	4.	The EP management demonstrates transparency in the development of the EP development plan, containing the start dates for implementation, based on an analysis of its functioning, the actual positioning of the EP and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders		+		

5	5.	The EP management demonstrates the existence of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP		+		
6	6.	The management of the EP should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of a development plan for the EP		+		
7	7.	The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education			+	
8	8.	The organization of higher and (or) postgraduate education must demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of staff duties, and delimitation of the functions of collegial bodies		+		
9	9.	The management of the EP must provide evidence of the transparency of the educational program management system		+		
10	10.	The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, decision-making based on facts		+		
11	11.	The management of the EP must carry out risk management, including within the framework of the EP undergoing primary accreditation, and also demonstrate a system of measures aimed at reducing the degree of risk		+		
12	12.	The management of the EP should ensure the participation of representatives of employers, teaching staff, students and other interested parties in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program		+		
13	13.	The EO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals		+		
14	14.	The management of the EP must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties		+		
15	15.	The management of the EP must be trained in education management programs		+		
Total by standard			0	14	1	0
Standard “Information Management and Reporting “						
16	1.	The EO must demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software tools and that it uses a variety of methods to collect and analyze information in the context of the EP		+		
17	2.	The management of the EP must demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system		+		
18	3.	The management of the EP must demonstrate fact-based decision making		+		
19	4.	Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research		+		
20	5.	The EO should establish the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural		+		

		divisions, top management, and the implementation of scientific projects				
21	6.	The EO must demonstrate the determination of the procedure for and ensuring the protection of information, including the identification of persons responsible for the reliability and timeliness of the analysis of information and the provision of data		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.		+		
23	8.	The management of the EP must demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for resolving conflicts		+		
24	9.	EO must demonstrate the availability of mechanisms for measuring the degree of satisfaction with the needs of teaching staff, staff and students within the framework of the EP		+		
25	10.	The EO should provide for an assessment of the effectiveness and efficiency of activities, including in the context of the EP		+		
		<i>The information expected to be collected and analyzed within the framework of the EP should take into account.:</i>				
26	11.	key performance indicators		+		
27	12.	the dynamics of the contingent of students in the context of forms and types		+		
28	13.	academic performance, student achievement and dropout		+		
29	14.	satisfaction of students with the implementation of the EP and the quality of education at the university		+		
30	15.	availability of educational resources and support systems for students		+		
31	16.	The EO must confirm the implementation of the procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent		+		
Total by standard			0	16	0	0
Standard "Development and approval of the educational program"						
32	1.	The EO must define and document the procedures for developing the EP and their approval at the institutional level.		+		
33	2.	The management of the EP should ensure that the content of the EP complies with the established goals, including the intended learning outcomes.		+		
34	3.	The management of the EP must demonstrate the existence of mechanisms for reviewing the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society		+		
35	4.	The management of the EP should ensure the availability of developed models of the EP graduate that describe the learning outcomes and personal qualities		+		
36	5.	The management of the EP must demonstrate the conduct of external reviews of the content of the EP and the planned results of its implementation		+		
37	6.	The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NSC and QF-EHEA		+		
38	7.	The EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
30	8.	An important factor is the possibility of preparing students for professional certification		+		

40	9.	The management of the EP must provide evidence of the participation of students, teaching staff and other interested parties in the development of the EP, ensuring its quality		+		
41	10.	The management of the EP should ensure that the content of the academic disciplines and the planned results correspond to the level of education (bachelor's, master's, doctoral studies)		+		
42	11.	The structure of the EP should provide for various types of activities that ensure that students achieve the planned learning outcomes		+		
43	12.	An important factor is the correspondence between the content of the EP and the learning outcomes of the EP implemented by organizations of higher and (or) postgraduate education in the EHEA		+		
Total by standard			0	12	0	0
Standard "Continuous monitoring and periodic evaluation of educational programs"						
44	1.	The EO should determine the mechanisms for monitoring and periodically evaluating the EP to ensure the achievement of the goal and meeting the needs of students, society, and show the focus of the mechanisms on the continuous improvement of the EP		+		
		<i>Monitoring and periodic evaluation of the EP should include:</i>				
45	2.	the content of the program in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline taught		+		
46	3.	changing needs of society and the professional environment		+		
47	4.	workload, performance and graduation of students		+		
48	5.	effectiveness of student assessment procedures		+		
49	6.	expectations, needs and satisfaction of students with EP training		+		
50	7.	educational environment and support services, and their compliance with the objectives of the EP		+		
51	8.	The management of the EP must demonstrate a systematic approach in monitoring and periodically assessing the quality of the EP		+		
52	9.	The EO, the management of the EP should determine a mechanism for informing all interested parties about any planned or taken actions in relation to the EP		+		
53	10.	All changes made to the EP must be published		+		
Total by standard			0	10	0	0
Standard "Student-Centered Learning, Teaching and Assessment"						
54	1.	The management of the EP should ensure respect and attention to different groups of students and their needs, provide them with flexible learning paths	+			
55	2.	The management of the EP should provide for the use of various forms and methods of teaching and learning		+		
56	3.	An important factor is the presence of own research in the field of teaching methods of academic disciplines of the EP		+		
57	4.	The management of the EP must demonstrate the existence of feedback mechanisms for the use of various teaching methods and the assessment of learning outcomes		+		
58	5.	The management of the EP must demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher		+		
59	6.	The management of the EP must demonstrate the existence of a procedure for responding to complaints from students		+		

60	7.	The EO must ensure the consistency, transparency and objectivity of the mechanism for evaluating learning outcomes for each SP, including appeal		+		
61	8.	The EO must ensure that the procedures for assessing the learning outcomes of students of the EP correspond to the planned results and goals of the program, the publication of criteria and assessment methods in advance		+		
62	9.	The EO should define the mechanisms to ensure the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation.		+		
63	10.	Assessors must be familiar with modern methods for assessing learning outcomes and regularly improve their skills in this area.		+		
Total by standard			1	9	0	0
Standard "Students"						
64	1.	The PA must demonstrate the existence of a policy for the formation of a contingent of students in the context of the EP, ensure transparency and publicity of its procedures governing the life cycle of students (from admission to completion)		+		
		<i>The management of the EP should determine the procedure for the formation of a contingent of students based on:</i>				
65	2.	minimum requirements for applicants		+		
66	3.	maximum group size during seminars, practical, laboratory and studio classes		+		
67	4.	predicting the number of government grants		+		
68	5.	analysis of available material and technical, information resources, human resources		+		
69	6.	analysis of potential social conditions for students, incl. provision of places in the hostel		+		
70	7.	The management of the EP must demonstrate readiness to conduct special adaptation and support programs for newly enrolled and foreign students		+		
71	8.	The EO must demonstrate the compliance of its actions with the Lisbon Recognition Convention, the existence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal learning		+		
72	9.	The EO should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications		+		
73	10.	The PA should provide an opportunity for external and internal mobility of students of the EP, as well as readiness to assist them in obtaining external grants for training		+		
74	11.	The management of the EP must demonstrate readiness to provide students with internship places, promote the employment of graduates, and maintain contact with them		+		
75	12.	The PA should provide for the possibility of providing graduates of the EP with documents confirming the qualifications received, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.		+		
Total by standard			0	12	0	0
Standard "Teaching Staff"						
76	1.	The EO must have an objective and transparent personnel policy, including in the context of the EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff		+		

77	2.	The PA must demonstrate the compliance of the staff potential of the teaching staff with the specifics of the EP		+		
78	3.	The management of the EP must demonstrate awareness of responsibility for its employees and provide favorable working conditions for them		+		
79	4.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	The EO must determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the EO, and other strategic documents		+		
81	6.	The EO should provide opportunities for career growth and professional development of the teaching staff of the EP	+			
82	7.	The management of the EP must demonstrate readiness to involve practitioners in the relevant sectors of the economy in teaching		+		
83	8.	The PA must demonstrate the motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods		+		
84	9.	An important factor is the readiness to develop academic mobility within the framework of the EP, to attract the best foreign and domestic teachers			+	
Total by standard			1	7	1	0
Standard "Educational resources and student support systems"						
85	1.	The EO must guarantee a sufficient number of educational resources and student support services to ensure the achievement of the goal of the EP		+		
86	2.	The EO must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of the EP (adults, working, foreign students, as well as students with disabilities)		+		
87	3.	The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling		+		
		<i>The EP management must demonstrate the compliance of information resources with the specifics of the EP, including:</i>				
88	4.	technological support for students and teaching staff (for example, online learning, modeling, databases, data analysis programs)		+		
89	5.	library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
90	6.	examination of the results of research, graduation works, dissertations for plagiarism		+		
91	7.	access to educational Internet resources		+		
92	8.	functioning of WI-FI on the territory of the educational organization		+		
93	9.	The EO demonstrates the planning of providing the EP with educational equipment and software similar to those used in the relevant sectors of the economy		+		
Total by standard			0	9	0	0
Standard "Public Information "						
		<i>The PA must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:</i>				
94	1.	expected learning outcomes of the implemented educational program		+		

95	2.	qualification and (or) qualification that will be awarded upon completion of the educational program		+		
96	3.	approaches to teaching, learning, as well as a system (procedures, methods and forms) of assessment		+		
97	4.	information about passing scores and learning opportunities provided to students		+		
98	5.	information about employment opportunities for graduates		+		
99	6.	The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties		+		
100	7.	Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education		+		
101	8.	EO must demonstrate the reflection on the web resource of information characterizing it as a whole and in the context of educational programs		+		
102	9.	An important factor is the availability of adequate and objective information about the teaching staff of the EP		+		
103	10.	An important factor is informing the public about cooperation and interaction with partners within the framework of the EP		+		
Total by standard			0	10	0	0
OVERALL			2	99	2	0

2 (1.9%) parameters have a “strong” position

99 (96.2%) parameters have a position of "satisfactory"

2 (1.9%) parameters have the position “suggests improvement”

0% of parameters have the position "unsatisfactory"

**Conclusion of the External Expert Commission for Quality Assessment
Educational program 8D07114 Nanomaterials and Nanotechnologies
Non-profit joint stock company "Kazakh National Research Technical University named after
K.I. Satbayev"**

№	№	Assessment Criteria	Position of the educational organization			
			strong	Satisfactory	Assumes improvement	Unsatisfactory
Standard "Management of the educational program"						
1	1.	The organization of higher and (or) postgraduate education must have a published quality assurance policy that reflects the relationship between research, teaching and learning		+		
2	2.	The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP		+		
3	3.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility		+		
4	4.	The EP management demonstrates transparency in the development of the EP development plan, containing the start dates for implementation, based on an analysis of its functioning, the actual positioning of the EP and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders		+		
5	5.	The EP management demonstrates the existence of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP		+		
6	6.	The management of the EP should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of a development plan for the EP		+		
7	7.	The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education			+	
8	8.	The organization of higher and (or) postgraduate education must demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of staff duties, and delimitation of the functions of collegial bodies		+		
9	9.	The management of the EP must provide evidence of the transparency of the educational program management system		+		
10	10.	The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, decision-making based on facts		+		
11	11.	The management of the EP must carry out risk management, including			+	

		within the framework of the EP undergoing primary accreditation, and also demonstrate a system of measures aimed at reducing the degree of risk				
12	12.	The management of the EP should ensure the participation of representatives of employers, teaching staff, students and other interested parties in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program		+		
13	13.	The EO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals			+	
14	14.	The management of the EP must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties		+		
15	15.	The management of the EP must be trained in education management programs		+		
Total by standard			0	12	3	0
Standard "Information Management and Reporting"						
16	1.	The EO must demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software tools and that it uses a variety of methods to collect and analyze information in the context of the EP		+		
17	2.	The management of the EP must demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system		+		
18	3.	The management of the EP must demonstrate fact-based decision making		+		
19	4.	Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research		+		
20	5.	The EO should establish the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management, and the implementation of scientific projects		+		
21	6.	The EO must demonstrate the determination of the procedure for and ensuring the protection of information, including the identification of persons responsible for the reliability and timeliness of the analysis of information and the provision of data		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.		+		
23	8.	The management of the EP must demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for resolving conflicts		+		
24	9.	EO must demonstrate the availability of mechanisms for measuring the degree of satisfaction with the needs of teaching staff, staff and students within the framework of the EP		+		
25	10.	The EO should provide for an assessment of the effectiveness and efficiency of activities, including in the context of the EP			+	
		<i>The information expected to be collected and analyzed within the framework of the EP should take into account:</i>				
26	11.	key performance indicators		+		

27	12.	the dynamics of the contingent of students in the context of forms and types		+		
28	13.	academic performance, student achievement and dropout		+		
29	14.	satisfaction of students with the implementation of the EP and the quality of education at the university		+		
30	15.	availability of educational resources and support systems for students		+		
31	16.	The EO must confirm the implementation of the procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent		+		
Total by standard			0	15	1	0
Standard "Development and approval of the educational program"						
32	1.	The EO must define and document the procedures for developing the EP and their approval at the institutional level.		+		
33	2.	The management of the EP should ensure that the content of the EP complies with the established goals, including the intended learning outcomes.		+		
34	3.	The management of the EP must demonstrate the existence of mechanisms for reviewing the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society			+	
35	4.	The management of the EP should ensure the availability of developed models of the EP graduate that describe the learning outcomes and personal qualities		+		
36	5.	The management of the EP must demonstrate the conduct of external reviews of the content of the EP and the planned results of its implementation		+		
37	6.	The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NSC and QF-EHEA		+		
38	7.	The EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
30	8.	An important factor is the possibility of preparing students for professional certification			+	
40	9.	The management of the EP must provide evidence of the participation of students, teaching staff and other interested parties in the development of the EP, ensuring its quality		+		
41	10	The management of the EP should ensure that the content of the academic disciplines and the planned results correspond to the level of education (bachelor's, master's, doctoral studies)		+		
42	11	The structure of the EP should provide for various types of activities that ensure that students achieve the planned learning outcomes		+		
43	12	An important factor is the correspondence between the content of the EP and the learning outcomes of the EP implemented by organizations of higher and (or) postgraduate education in the EHEA		+		
Total by standard			0	10	2	0
Standard "Continuous monitoring and periodic evaluation of educational programs"						

44	1.	The EO should determine the mechanisms for monitoring and periodically evaluating the EP to ensure the achievement of the goal and meeting the needs of students, society, and show the focus of the mechanisms on the continuous improvement of the EP		+		
		<i>Monitoring and periodic evaluation of the EP should include:</i>				
45	2.	the content of the program in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline taught		+		
46	3.	changing needs of society and the professional environment		+		
47	4.	workload, performance and graduation of students		+		
48	5.	effectiveness of student assessment procedures		+		
49	6.	expectations, needs and satisfaction of students with EP training		+		
50	7.	educational environment and support services, and their compliance with the objectives of the EP		+		
51	8.	The management of the EP must demonstrate a systematic approach in monitoring and periodically assessing the quality of the EP		+		
52	9.	The EO, the management of the EP should determine a mechanism for informing all interested parties about any planned or taken actions in relation to the EP		+		
53	10.	All changes made to the EP must be published		+		
Total by standard			0	10	0	0
Standard "Student-Centered Learning, Teaching and Assessment"						
54	1.	The management of the EP should ensure respect and attention to different groups of students and their needs, provide them with flexible learning paths		+		
55	2.	The management of the EP should provide for the use of various forms and methods of teaching and learning		+		
56	3.	An important factor is the presence of own research in the field of teaching methods of academic disciplines of the EP		+		
57	4.	The management of the EP must demonstrate the existence of feedback mechanisms for the use of various teaching methods and the assessment of learning outcomes		+		
58	5.	The management of the EP must demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher		+		
59	6.	The management of the EP must demonstrate the existence of a procedure for responding to complaints from students		+		
60	7.	The EO must ensure the consistency, transparency and objectivity of the mechanism for evaluating learning outcomes for each SP, including appeal		+		
61	8.	The EO must ensure that the procedures for assessing the learning outcomes of students of the EP correspond to the planned results and goals of the program, the publication of criteria and assessment methods in advance		+		
62	9.	The EO should define the mechanisms to ensure the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation.		+		
63	10.	Assessors must be familiar with modern methods for assessing learning outcomes and regularly improve their skills in this area.		+		
Total by standard			0	10	0	0
Standard "Students"						

64	1.	The PA must demonstrate the existence of a policy for the formation of a contingent of students in the context of the EP, ensure transparency and publicity of its procedures governing the life cycle of students (from admission to completion)		+		
		<i>The management of the EP should determine the procedure for the formation of a contingent of students based on:</i>				
65	2.	minimum requirements for applicants		+		
66	3.	maximum group size during seminars, practical, laboratory and studio classes		+		
67	4.	predicting the number of government grants		+		
68	5.	analysis of available material and technical, information resources, human resources		+		
69	6.	analysis of potential social conditions for students, incl. provision of places in the hostel		+		
70	7.	The management of the EP must demonstrate readiness to conduct special adaptation and support programs for newly enrolled and foreign students		+		
71	8.	The EO must demonstrate the compliance of its actions with the Lisbon Recognition Convention, the existence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal learning		+		
72	9.	The EO should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications		+		
73	10.	The PA should provide an opportunity for external and internal mobility of students of the EP, as well as readiness to assist them in obtaining external grants for training		+		
74	11.	The management of the EP must demonstrate readiness to provide students with internship places, promote the employment of graduates, and maintain contact with them		+		
75	12.	The PA should provide for the possibility of providing graduates of the EP with documents confirming the qualifications received, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.		+		
Total by standard			0	12	0	0
Standard "Teaching Staff"						
76	1.	The EO must have an objective and transparent personnel policy, including in the context of the EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff		+		
77	2.	The PA must demonstrate the compliance of the staff potential of the teaching staff with the specifics of the EP		+		
78	3.	The management of the EP must demonstrate awareness of responsibility for its employees and provide favorable working conditions for them		+		
79	4.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	The EO must determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the EO, and other strategic documents		+		
81	6.	The EO should provide opportunities for career growth and professional development of the teaching staff of the EP		+		

82	7.	The management of the EP must demonstrate readiness to involve practitioners in the relevant sectors of the economy in teaching		+		
83	8.	The PA must demonstrate the motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods		+		
84	9.	An important factor is the readiness to develop academic mobility within the framework of the EP, to attract the best foreign and domestic teachers	+			
Total by standard			1	8	0	0
Standard "Educational resources and student support systems"						
85	1.	The EO must guarantee a sufficient number of educational resources and student support services to ensure the achievement of the goal of the EP		+		
86	2.	The EO must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of the EP (adults, working, foreign students, as well as students with disabilities)		+		
87	3.	The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling		+		
		<i>The EP management must demonstrate the compliance of information resources with the specifics of the EP, including:</i>		+		
88	4.	technological support for students and teaching staff (for example, online learning, modeling, databases, data analysis programs)		+		
89	5.	library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
90	6.	examination of the results of research, graduation works, dissertations for plagiarism		+		
91	7.	access to educational Internet resources		+		
92	8.	functioning of WI-FI on the territory of the educational organization		+		
93	9.	The EO demonstrates the planning of providing the EP with educational equipment and software similar to those used in the relevant sectors of the economy		+		
Total by standard			0	9	0	0
Standard "Public Information"						
		<i>The PA must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:</i>				
94	1.	expected learning outcomes of the implemented educational program		+		
95	2.	qualification and (or) qualification that will be awarded upon completion of the educational program		+		
96	3.	approaches to teaching, learning, as well as a system (procedures, methods and forms) of assessment		+		
97	4.	information about passing scores and learning opportunities provided to students		+		
98	5.	information about employment opportunities for graduates		+		
99	6.	The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties		+		
100	7.	Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education		+		

101	8.	EO must demonstrate the reflection on the web resource of information characterizing it as a whole and in the context of educational programs		+		
102	9.	An important factor is the availability of adequate and objective information about the teaching staff of the EP		+		
103	10.	An important factor is informing the public about cooperation and interaction with partners within the framework of the EP		+		
Total by standard			0	10	0	0
TOTAL			1	96	6	0

1 (0.9%) parameters have a position of "strong"
96 (93.2%) parameters have a position of "satisfactory"
6 (5.9%) parameters have the position "suggests improvement"
0% of parameters have the position "unsatisfactory"

Appendix 1.2

**Conclusion of the External Expert Commission for the Assessment of the Quality of Educational Programs 6B07305 Transport Construction, 7M07320 Transport Construction
Non-profit joint stock company "Kazakh National Research Technical University named after K.I. Satbayev"**

№	№	Assessment Criteria	Position of the educational organization			
			strong	Satisfactory	Assumes improvement	Unsatisfactory
Standard "Management of the educational program"						
1	1.	The organization of higher and (or) postgraduate education must have a published quality assurance policy that reflects the relationship between research, teaching and learning		+		
2	2.	The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP		+		
3	3.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility		+		
4	4.	The EP management demonstrates transparency in the development of the EP development plan, containing the start dates for implementation, based on an analysis of its functioning, the actual positioning of the EP and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders		+		

5	5.	The EP management demonstrates the existence of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP		+		
6	6.	The management of the EP should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of a development plan for the EP		+		
7	7.	The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education			+	
8	8.	The organization of higher and (or) postgraduate education must demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of staff duties, and delimitation of the functions of collegial bodies		+		
9	9.	The management of the EP must provide evidence of the transparency of the educational program management system		+		
10	10.	The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, decision-making based on facts		+		
11	11.	The management of the EP must carry out risk management, including within the framework of the EP undergoing primary accreditation, and also demonstrate a system of measures aimed at reducing the degree of risk		+		
12	12.	The management of the EP should ensure the participation of representatives of employers, teaching staff, students and other interested parties in the collegiate management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program	+			
13	13.	The OO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals			+	
14	14.	The management of the EP must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties		+		
15	15.	The management of the EP must be trained in education management programs		+		
Total by standard			1	12	2	0
Standard “Information Management and Reporting”						
16	1.	The EO must demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software tools and that it uses a variety of methods to collect and analyze information in the context of the EP	+			
17	2.	The management of the EP must demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system		+		
18	3.	The management of the EP must demonstrate fact-based decision making		+		
19	4.	Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research		+		

20	5.	The EO should establish the frequency, forms and methods for assessing the management of the EP, the activities of collegial bodies and structural divisions, top management, and the implementation of scientific projects		+		
21	6.	The EO must demonstrate the determination of the procedure for and ensuring the protection of information, including the identification of persons responsible for the reliability and timeliness of the analysis of information and the provision of data		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.		+		
23	8.	The management of the EP must demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for resolving conflicts		+		
24	9.	EO must demonstrate the availability of mechanisms for measuring the degree of satisfaction with the needs of teaching staff, staff and students within the framework of the EP		+		
25	10.	The EO should provide for an assessment of the effectiveness and efficiency of activities, including in the context of the EP		+		
		<i>The information expected to be collected and analyzed within the framework of the EP should take into account:</i>				
26	11.	key performance indicators		+		
27	12.	the dynamics of the contingent of students in the context of forms and types		+		
28	13.	academic performance, student achievement and dropout		+		
29	14.	satisfaction of students with the implementation of the EP and the quality of education at the university		+		
30	15.	availability of educational resources and support systems for students		+		
31	16.	The EO must confirm the implementation of the procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent		+		
Total by standard			1	15	0	0
Standard "Development and approval of the educational program"						
32	1.	The EO must define and document the procedures for developing the EP and their approval at the institutional level.		+		
33	2.	The management of the EP should ensure that the content of the EP complies with the established goals, including the intended learning outcomes.		+		
34	3.	The management of the EP must demonstrate the existence of mechanisms for reviewing the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society	+			
35	4.	The management of the EP should ensure the availability of developed models of the EP graduate that describe the learning outcomes and personal qualities		+		
36	5.	The management of the EP must demonstrate the conduct of external reviews of the content of the EP and the planned results of its	+			

		implementation				
37	6.	The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NSC and QF-EHEA		+		
38	7.	The EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
30	8.	An important factor is the possibility of preparing students for professional certification		+		
40	9.	The management of the EP must provide evidence of the participation of students, teaching staff and other interested parties in the development of the EP, ensuring its quality		+		
41	10.	The management of the EP should ensure that the content of the academic disciplines and the planned results correspond to the level of education (bachelor's, master's, doctoral studies)		+		
42	11.	The structure of the EP should provide for various types of activities that ensure that students achieve the planned learning outcomes		+		
43	12.	An important factor is the correspondence between the content of the EP and the learning outcomes of the EP implemented by organizations of higher and (or) postgraduate education in the EHEA		+		
Total by standard			2	10	0	0
Standard "Continuous monitoring and periodic evaluation of educational programs"						
44	1.	The EO should determine the mechanisms for monitoring and periodically evaluating the EP to ensure the achievement of the goal and meeting the needs of students, society, and show the focus of the mechanisms on the continuous improvement of the EP		+		
		<i>Monitoring and periodic evaluation of the EP should include:</i>				
45	2.	the content of the program in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline taught		+		
46	3.	changing needs of society and the professional environment		+		
47	4.	workload, performance and graduation of students		+		
48	5.	effectiveness of student assessment procedures		+		
49	6.	expectations, needs and satisfaction of students with EP training		+		
50	7.	educational environment and support services, and their compliance with the objectives of the EP		+		
51	8.	The management of the EP must demonstrate a systematic approach in monitoring and periodically assessing the quality of the EP		+		
52	9.	The EO, the management of the EP should determine a mechanism for informing all interested parties about any planned or taken actions in relation to the EP		+		
53	10.	All changes made to the EP must be published		+		
Total by standard			0	10	0	0
Standard "Student-Centered Learning, Teaching and Assessment"						
54	1.	The management of the EP should ensure respect and attention to different groups of students and their needs, provide them with flexible learning paths	+			
55	2.	The management of the EP should provide for the use of various forms and methods of teaching and learning		+		

56	3.	An important factor is the presence of own research in the field of teaching methods of academic disciplines of the EP		+		
57	4.	The management of the EP must demonstrate the existence of feedback mechanisms for the use of various teaching methods and the assessment of learning outcomes		+		
58	5.	The management of the EP must demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher		+		
59	6.	The management of the EP must demonstrate the existence of a procedure for responding to complaints from students		+		
60	7.	The EO must ensure the consistency, transparency and objectivity of the mechanism for evaluating learning outcomes for each SP, including appeal		+		
61	8.	The EO must ensure that the procedures for assessing the learning outcomes of students of the EP correspond to the planned results and goals of the program, the publication of criteria and assessment methods in advance		+		
62	9.	The EO should define the mechanisms to ensure the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation.		+		
63	10	Assessors must be familiar with modern methods for assessing learning outcomes and regularly improve their skills in this area.		+		
Total by standard			1	9	0	0
Standard "Students"						
64	1.	The PA must demonstrate the existence of a policy for the formation of a contingent of students in the context of the EP, ensure transparency and publicity of its procedures governing the life cycle of students (from admission to completion)		+		
		<i>The management of the EP should determine the procedure for the formation of a contingent of students based on:</i>				
65	2.	minimum requirements for applicants		+		
66	3.	maximum group size during seminars, practical, laboratory and studio classes		+		
67	4.	predicting the number of government grants		+		
68	5.	analysis of available material and technical, information resources, human resources		+		
69	6.	analysis of potential social conditions for students, incl. provision of places in the hostel		+		
70	7.	The management of the EP must demonstrate readiness to conduct special adaptation and support programs for newly enrolled and foreign students	+			
71	8.	The EO must demonstrate the compliance of its actions with the Lisbon Recognition Convention, the existence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal learning			+	
72	9.	The EO should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications		+		
73	10	The PA should provide an opportunity for external and internal mobility of students of the EP, as well as readiness to assist them in obtaining external grants for training		+		
74	11	The management of the EP must demonstrate readiness to provide students with internship places, promote the employment of graduates, and maintain contact with them		+		

75	12	The PA should provide for the possibility of providing graduates of the EP with documents confirming the qualifications received, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.		+		
Total by standard			1	10	1	0
Standard "Teaching Staff"						
76	1.	The EO must have an objective and transparent personnel policy, including in the context of the EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff		+		
77	2.	The PA must demonstrate the compliance of the staff potential of the teaching staff with the specifics of the EP		+		
78	3.	The management of the EP must demonstrate awareness of responsibility for its employees and provide favorable working conditions for them		+		
79	4.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	The EO must determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the EO, and other strategic documents		+		
81	6.	The EO should provide opportunities for career growth and professional development of the teaching staff of the EP		+		
82	7.	The management of the EP must demonstrate readiness to involve practitioners in the relevant sectors of the economy in teaching	+			
83	8.	The PA must demonstrate the motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods		+		
84	9.	An important factor is the readiness to develop academic mobility within the framework of the EP, to attract the best foreign and domestic teachers		+		
Total by standard			1	8	0	0
Standard "Educational resources and student support systems"						
85	1.	The EO must guarantee a sufficient number of educational resources and student support services to ensure the achievement of the goal of the EP		+		
86	2.	The EO must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of the EP (adults, working, foreign students, as well as students with disabilities)		+		
87	3.	The management of the EP must demonstrate the existence of procedures for supporting various groups of students, including information and counseling		+		
		<i>The EP management must demonstrate the compliance of information resources with the specifics of the EP, including:</i>				
88	4.	technological support for students and teaching staff (for example, online learning, modeling, databases, data analysis programs)		+		
89	5.	library resources, including a fund of educational, methodical and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases			+	
90	6.	examination of the results of research, graduation works, dissertations for plagiarism		+		
91	7.	access to educational Internet resources		+		
92	8.	functioning of WI-FI on the territory of the educational organization		+		

93	9.	The EO demonstrates the planning of providing the EP with educational equipment and software similar to those used in the relevant sectors of the economy		+		
Total by standard			0	8	1	0
Standard “Public Information “						
		<i>The PA must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:</i>				
94	1.	expected learning outcomes of the implemented educational program		+		
95	2.	qualification and (or) qualification that will be awarded upon completion of the educational program		+		
96	3.	approaches to teaching, learning, as well as a system (procedures, methods and forms) of assessment		+		
97	4.	information about passing scores and learning opportunities provided to students		+		
98	5.	information about employment opportunities for graduates		+		
99	6.	The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties		+		
100	7.	Informing the public should include support and explanation of the national development programs of the country and the system of higher and postgraduate education		+		
101	8.	EO must demonstrate the reflection on the web resource of information characterizing it as a whole and in the context of educational programs		+		
102	9.	An important factor is the availability of adequate and objective information about the teaching staff of the EP		+		
103	10.	An important factor is informing the public about cooperation and interaction with partners within the framework of the EP		+		
Total by standard			0	10	0	0
TOTAL			7	92	4	0

7 (6.9%) parameters have a “strong” position

92 (89.2%) parameters have a position of "satisfactory"

4 (3.9%) parameters have the position “suggests improvement”

0% of parameters have the position "unsatisfactory"