



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТИҢ
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)

6B07106 MECHANICAL ENGINEERING
8D07109 INNOVATIVE TECHNOLOGIES
AND NEW INORGANIC MATERIALS

NJSC "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 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 General Director of the Independent Agency for Accreditation and Rating, an external expert commission assessed the compliance of the educational programs, including an external assessment, 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 dated May 25, 2018) of following educational programs EP 8D06104 Cybernetics and artificial intelligence, 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials, 8D07110 Digital engineering of machines and equipment.

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

The composition of the EEC:

Chairman of the IAAR EEC - Lushchik Alexander Cheslavovich, Doctor of Physical and Mathematical Sciences, Professor, Head of the Laboratory of Physics of Ionic Crystals at the Institute of Physics of the University of Tartu (Tartu, Estonia).

IAAR EEC Coordinator – Niyazova Guliyash Balkenovna, project manager for institutional and specialized accreditation of universities (Nur-Sultan, Republic of Kazakhstan).

Cluster 1. Primary specialized accreditation

6B05103
Engineering
ecology

IAAR Expert - Berdenov Zharas Galimzhanovich, PhD, Associate Professor of L.N. Gumilyov Eurasian National University (Nur-Sultan, Republic of Kazakhstan).

IAAR Expert student - Serikkaliev Tasbolat Serikkaliuly (Serikkaliev Tasbolat Serikkalievich), Executive Director of the Branch of the Alliance of University Students in the West Kazakhstan region (Uralsk, Republic of Kazakhstan).

7M08601 **Water**
resources and water
use

IAAR Expert - Mukhamedzhanova Rufina Rinatovna, Director of the Quality Department of the G. Daukeev Almaty University of Energy and Communications (Almaty, Republic of Kazakhstan).

8D07104 **Oil and**
gas and ore
geophysics

IAAR Expert - Aleksey Lozhnikov, Doctor of Technical Sciences, Professor of the National Technical University "Dnipro Polytechnic" (Dnipro, Ukraine).

Cluster 2. Primary specialized accreditation

6V07305 **Transport**
construction,
7M07320 **Transport**
construction

IAAR Expert - Rabat Ondabek Zhanakhmetuly, Doctor of Technical Sciences, Professor of the L.B. Goncharov Kazakh Automobile and Road Academy (Almaty, Republic of Kazakhstan).

6B07115
Technological
machines **and**
equipment **(by**
industry) **student**

IAAR Expert - Sembaev Nurbolat Sakenovich, Ph.D., Associate Professor of Toraigyrov University (Pavlodar, Republic of Kazakhstan).

IAAR Expert - Bekmyrza Zhumash Aitzhanuly, student of EP 8D07102 Technological machines and equipment (mechanical

engineering) of A. Baitursynov Kostanay Regional University (Kostanay, Republic of Kazakhstan).

8D07114

Nanomaterials and Nanotechnology

IAAR Expert - Nazhipkyzy Meruert, Ph.D., Associate Professor of al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan).

Cluster 3. Primary specialized accreditation

7M11201 Hygiene and labor protection at work

IAAR Expert – Baitelesova Laura Ilyasovna, Ph.D., Associate Professor of the West Kazakhstan Innovation and Technology University (Uralsk, Republic of Kazakhstan).

8D07304 Engineering systems and networks

IAAR Expert - Kolpakova Valentina Pavlovna, Doctor of Technical Sciences, Associate Professor of D. Serikbaev East Kazakhstan Technical University (Ust-Kamenogorsk, Republic of Kazakhstan).

8D07305

Construction and production of building materials and structures

IAAR Expert - Rakhimov Murat Amanzholovich, Candidate of Technical Sciences, Associate Professor of Karaganda Technical University (Karaganda, Republic of Kazakhstan).

8D07303

Construction and production of building materials and structures.

IAAR Expert - Saktaganova Nargul Amanovna, PhD, Associate Professor of Korkyt ata Kyzylorda University (Kyzylorda, Republic of Kazakhstan).

IAAR Expert, employer - Pilipenko Yuriy Alexandrovich, Chairman of the International Association of Producers of Goods and Services "Expobest" (Almaty, Republic of Kazakhstan).

Cluster 4. Primary specialized accreditation

8D11301 Transport services

Expert IAAR - Pak Yuriy Nikolaevich, Doctor of Technical Sciences, Professor of Karaganda Technical University (Karaganda, Republic of Kazakhstan).

7M04104 Executive MBA

Expert IAAR - Inna Sidorova , MBA, Master of Science in Economics, Business Manager, BGC Partners, (London , United kingdom).

8D04102 Management

Expert IAAR – Arzaeva Maya Zhetkergenovna, PhD in Economics, Associate Professor of the Academy of Logistics and Transport (Almaty, Republic of Kazakhstan).

Expert IAAR student – Kereeva Tansholpan Makhambetkyzy, 2nd year student of EP 7M04106 at K. Zhubanov Aktobe Regional University (Aktobe, Republic of Kazakhstan).

Cluster 5. Primary specialized accreditation

6B07114 Biomedical engineering

Expert IAAR - Yurikova Oksana Yuryevna, PhD, Senior Lecturer of al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan).

6B07112 Electronic and Electrical

Expert IAAR - Zhumazhanov Serik Karatayevich, Ph.D., Senior Lecturer, S. Seifullin Kazakh Agrotechnical University (Nur-Sultan, Republic of Kazakhstan).

Engineering

Expert IAAR - Shunkeev Kuanyshbek Shunkeevich, Doctor of Physical and Mathematical Sciences, Professor of K. Zhubanov Aktobe Regional University (Aktobe, Republic of Kazakhstan).

**8D06105
Information
security systems**

Expert IAAR, student - Zhanel Sairanovna Talipova, 2nd year student of EP 7M07105 Automation and Control of S. Seifullin Kazakh Agrotechnical University (Nur-Sultan, Republic of Kazakhstan).

**6B07112
Electronic and
Electrical
Engineering**

Cluster 6. Primary specialized accreditation

**8D06104
Cybernetics and
artificial
intelligence**

Expert IAAR - Gnatushenko Vladimir Vladimirovich, Doctor of Technical Sciences, Professor of the National Technical University "Dnipro Polytechnic" (Dnipro, Ukraine).

**6B07106
Mechanical
Engineering**

Expert IAAR - Bakhtiyar Balzhan Turepashkyzy, Ph.D., Associate Professor of the Academy of Logistics and Transport (Almaty, Republic of Kazakhstan).

**8D07110 Digital
engineering of
machinery and
equipment**

Expert IAAR - Andrei Kichuk, President of the National Agency for Quality Assurance in Education and Scientific Research - ANAC EC (Chisinau, Moldova).

**8D07109 Innovative
technologies and
new inorganic
materials**

Expert IAAR - Mashan Togzhan Turgalievna, Candidate of Chemical Sciences, Associate Professor of L.N. Gumilyov Eurasian National University (Nur-Sultan, Republic of Kazakhstan).

Expert IAAR, student - Asylkhanova Dana Dauletkyzy, studying double-degree EP 7M07121 Nanomaterials and Nanotechnologies in Chemistry of al-Farabi Kazakh National University - Peoples' Friendship University of Russia (Almaty, Republic of Kazakhstan).

During the work of the EEC was guided by:

- **The program of the visit of the EEC IAAR using a hybrid model to the NJSC "K.I. Satbayev Kazakh National Research Technical University"**. The Program was developed on the basis of the Guidelines for organizing and conducting an external evaluation procedure in the process of accreditation of an educational organization and (or) an educational program (Order of the Director of the IAAR No. 42-17-OD dated June 30, 2017).

- Guidelines for conducting self-assessment for primary specialized accreditation of an educational program (Ex-ante) of an organization of higher and (or) postgraduate education. Astana: IAAR, 2018 - 53 p.

- Standards for primary specialized accreditation of an educational program (Ex-ante) of an organization of higher and (or) postgraduate education (Republic of Kazakhstan). Astana: IAAR, 2018 - 25 p. (Order of the Director of the Non-Profit Institution "Independent Agency for Accreditation and Rating" No. 68-18 / 1-OD dated May 25, 2018).

- Guidelines for organizing and conducting an on-line visit of an external expert commission (including a visit by an expert group on post-accreditation monitoring) for the period of restrictive measures in connection with the COVID-19 pandemic . Nur-Sultan: IAAR, 2020 - 11 p. (Order of

the Director General of the National Institution "Independent Accreditation and Rating Agency" dated July 01, 2020 No. 58-20-OD).

(III) REPRESENTATION OF THE EDUCATIONAL ORGANIZATION

K.I. Satbayev KazNRTU is the largest scientific and methodological center in Kazakhstan, developing special educational programs aimed to training specialists to industry, complex projects and creating teams of world-class professionals. History of K.I. Satbayev KazNRTU begins from the creation of the Kazakh Mining and Metallurgical Institute in 1934. On July 5, 2001, by the Decree of the President of the Republic of Kazakhstan, the University had been received a special status - it became a major educational center coordinating the training of scientific and engineering personnel in Kazakhstan. Academic activity Satbayev University is aimed at improving the training quality of competitive generation of modern engineers to meet the needs of the industry in specialists, as well as their technological developments. Educational programs at Satbayev University are developed according to the principle of modular structuring, with considering the Dublin descriptors. The European system of transferring academic credits ECTS has been introduced.

The university has implemented the transition to a multi-level system of higher and postgraduate education (bachelor's degree - master's degree - PhD degree). At the same time, the University has a license in 41 training directions, incl. undergraduate - 15; doctoral studies - 15; doctoral studies PhD - 11.

Satbayev University is included in the the Chevron University Partnership Program. This program involves Cambridge, Stanford Universities and the Massachusetts Institute of Technology. Satbayev University has been introduced the quality management system that complies with ISO 9001:2000, certified by the Russian Register and IQNet in relation to educational activities for the training of personnel with higher professional education based on state educational standards of the Republic of Kazakhstan in specialties and areas in accordance with the area of licensing, state certification and accreditations since 2005. Subsequently, the University repeatedly went through the recertification procedure and confirmed the double Certificate ISO 9001-2015 dated November 26, 2020 No. 20.2014.026 (2008, 2011, 2014, 2017, 2020). University implements the International Accreditation Program, and currently 16 EPs in the field of engineering and technology are accredited by the ASIIN Agency. Institutional accreditation at the national level was successfully passed at the National Accreditation Center under the Ministry of Education and Science of the Republic of Kazakhstan and received a certificate No.000001, an institutional assessment by the European Association of Universities at the international level.

The University owns academic resources for the implementation of educational activities for the accredited study program.

(IV) DESCRIPTION OF THE EEC VISIT

The work of the EEC was carried out within the Online Visit Program of the Expert Commission for International Primary Specialized Accreditation of K.I. Satbayev Kazakh National Research Technical University from 19 to 21 April 2022.

In order to coordinate the EEC's work, an online kick-off meeting was held on April 15, 2022, where powers were distributed among the EEC members, 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 online meetings with the Chairman of the Board - the rector, vice-rectors, heads of structural divisions, deans, heads of university departments, teachers, students, employers and employees from various departments, interviewing and questioning teachers and students.

During the online tour, the EEC members got acquainted with the material and technical base, visited lecture halls and classrooms for laboratory and practical work of the departments where the relevant educational programs are accredited.

At the on-line meetings of the IAAR EEC with the target groups of the university, the mechanisms for implementing the policy of the university were clarified and certain data presented in the university self-assessment report were specified.

The events planned during the visit of the IAAR EEC contributed to familiarizing the experts with the practices centers online or watching video from practices centers, such as the Agrochem Department, the Institute of Combustion Problems, Kazphosphate LLP, Nauka Stroy LLP, Ecology Research Institute, JSC “Institute of Chemical Sciences named after A.B. Bekturov”, Scientific Production and Technical Center “Zhalyn”, Research Laboratory Air Service Kazphosphate, etc.

EEC members attended online lessons on educational program 6B07106 Mechanical Engineering. The classes for students on Educational program 8D06104 Cybernetics and Artificial Intelligence were ended in the first semester. Within EP 8D07109 Innovative Technologies and New Inorganic materials attendance at the training session have not been considered.

In accordance with the accreditation procedure, a survey of 71 teachers and 41 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. The experts studied the official website of the university [https://satbayev.university/ru](https://satbayev.university.ru).

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

(V) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

Educational programs 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials 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 from "25" May 2018) are being held for the first time.

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

6.1. Standard "Management of the educational programme"

- *The organization of higher and (or) postgraduate education must have a published quality assurance policy. The quality assurance policy should reflect 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 EP context.*
- *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 its readiness to ensure transparency in the development of the EP development plan 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. The plan should contain the dates for the start of the implementation of the educational program.*
- *The EP management demonstrates the functioning of the 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.*
- *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, and also 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.*
- *The EO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals.*
- *The management of the EP 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.*

Evidence

According to the analysis of the self-assessment report, additional materials and the results of the meetings with the target groups, the following conclusions of the EEC have been formed:

Mission, strategic goals and objectives, including development priorities of the non-profit joint-stock company "K.I. Satbayev Kazakh National Research Technical University" correspond to the national policy in the field of education and was developed in accordance with modern trends in the development of the international educational system.

Strategy of Development of the non-profit joint-stock company “K.I. Satbayev Kazakh National Research Technical University” for 2022-2026 approved by the decision of the Board of Directors *No. 1 dated January 31, 2022* and developed in accordance with the order of the Minister of Education and Science of the Republic of Kazakhstan dated October 25, 2018 No. 590, the National Development Plan of the Republic of Kazakhstan until 2025, the Decree of the President of the Republic of Kazakhstan dated October 07 2021 "On approval of the list of national projects", the National project "Quality education "Educated nation", including strategic and program documents of the Republic of Kazakhstan, defines the mission, vision, strategic directions, goals and objectives of the university for 2022 - 2026. This document is in the public domain and posted on the official website of the university (<https://official.satbayev.university/ru/university/mission-strategy>).

According to the stated mission, goals and objectives of the university, the processes of planning and distribution of tasks are carried out, which in turn are reflected in the Academic Policy of the University (AP 029-03-02-02.01.01 - 2021), approved by the decision of the Chairman of the Board - Rector No. 25 dated September 20 .2021 and is available to everyone on the official website (<https://official.satbayev.university/download/document/22661/202021.pdf>).

The EEC confirms that the above documents were developed on the basis of a prospective analysis of the development of the educational services market, which includes all important aspects of the university development: the development of the university management system, personnel policy, the university academic strategy, the development of research and innovation activities, the expansion of international cooperation, educational policy, the development of the material base and infrastructure, the financial strategy of the university.

The University was the first in Kazakhstan who pass and re-confirm the International Institutional Evaluation in the European University Association (EUA) under the International Evaluation Program (IEP, International Evaluation Program).

To ensure the quality of educational activities, scientific research by fulfilling the requirements of all stakeholders of NJSC K.I. Satbayev KazNRTU has a published Quality Policy supported by the academic and scientific community of the university. It defines the goals, activities and obligations of the university and the quality management of the university, taking into account the degree of satisfaction of all stakeholders, the system's compliance with the Standards and Directives for Quality Assurance in Higher Education in the European Area (ESG). The actualization of the Policy and Quality Objectives is carried out in a manner similar to the development, but additionally uses the information obtained in the course of management analysis conducted by top management. The quality policy is drawn up both in the form of a separate document and is mandatory included in the Quality Manual, posted on the university website, and notified to all structural divisions of the university. Since August 2005, the University has developed and implemented a certified Quality Management System that meets the requirements of international standards, complies with ISO 9001:2000, certified by the Russian Register and IQNet in relation to educational activities for the training of personnel with higher professional education based on state educational standards RK on specialties, EP and directions in accordance with the area of licensing, state certification and accreditation.

To support the main business processes at the university, a set of internal regulatory documents has been developed that regulates the implementation of educational programs. The university has an effective system for monitoring the quality of education, as a result, an internal corporate management environment has been created that allows employees and faculty to be fully involved in the process of achieving goals for the quality of education. However, the Self-evaluation report does not contain answers to the questions “Are there business processes specific to the EP being accredited? In what documents are they reflected?

The University provides educational services in accordance with the regulatory requirements of the Republic of Kazakhstan, a three-level system of training specialists "Bachelor", "Master", " PhD " is applied.

The implementation of accredited educational programs in the educational process is carried out in accordance with the mission, vision and development priorities of the non-profit joint-stock company “K.I. Satbayev Kazakh National Research Technical University”, according to the Rules for the development of educational programs in Satbayev University (K.I. Satbayev Kazakh National Research Technical University), approved by the Decision of the Board No. 35 dated 15.10.2020

This document is available on the official website in the public domain for everyone (<https://official.satbayev.university/download/document/21814/202020.pdf>), which was developed independently by the university and is aimed at developing and implementing the standard of educational programs for higher and postgraduate education, including the optimal implementation of the principles of the Bologna process in NJSC K.I. Satbayev KazNRTU in all areas and levels of training.

Development and management of educational programs 8D06104 Cybernetics and artificial intelligence, 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials is carried out using a process approach in accordance with the strategy, mission, vision and values of the University.

Transparency and operational management of educational programs is carried out by the University Board, which: a) approves internal regulations and regulations, target indicators and cost estimates for the implementation of activities, and also improves the mechanism for implementing the EP; b) ensures the effective use of funds allocated for the implementation of the EP; c) conducts an internal audit of the main activities; d) manages the activities of event executors; e) submits to the Ministry of Education and Science of the Republic of Kazakhstan reports on the implementation of the EP and individual activities, proposals for changing the content of activities and their resource support; f) provides information support for the implementation of the EP. Coordination of work on events is carried out by members of the Management Board - Vice-Chancellors of the University.

The Academic Council of the University performs the following functions in terms of EP: a) considers materials on the progress of activities implementation; b) organizes verification of the implementation of measures, targeted and efficiency of funds using; c) prepares recommendations for improving the implementation efficiency of program activities, taking into account the trends in social and economic development; d) identifies scientific, technical and organizational problems during the program implementation; reviews the results of its implementation.

The issues of improving the quality of training of specialists are the main subject of discussion at regular meetings of the university rector with the university staff and students. At these meetings, any acute and topical issues are openly and constructively discussed, and the problems that have arisen are promptly resolved. The annual reports of the rector on the activities of the university at extended meetings of the Academic Council traditionally are held, while also defining specific tasks for the university staff in the short and medium term. SU's performance evaluation includes students' opinions on the quality of teaching, and satisfaction with teaching and extracurricular activities.

Training for EP 8D06104 Cybernetics and artificial intelligence, 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials is carried out according to the state compulsory standard of higher education of the Republic of Kazakhstan dated October 31, 2018 No. 604.

The mission of the educational program "6B07106 - Mechanical Engineering " is to provide the country with highly qualified specialists with fundamental knowledge in the field of natural science and mechanical engineering for work in the field of high-tech engineering and is aimed at training specialists in the field of creating engineering systems and structures, operating standard machines and mechanisms for solving a wide range of engineering problems based on fundamental physical and engineering principles using modern mathematical and computer methods.

Undergraduate studies are conducted in Kazakh, Russian and English.

In turn, the EP contains theoretical training in three cycles: general education disciplines, basic disciplines, major disciplines, including additional types of training, final certification, including the preparation, writing and defense of a thesis.

The EP includes the main indicators of IT training, as well as applying modern software's: MATLAB for solving differential equations, AutoCAD for computer-aided design system, the basics of programming in Python for the implementation of numerical methods, conducting thermodynamic and energy analysis on TRNSYS, as well as such packages like MATLAB and Simulink for solving, analyzing and visualizing results; APM Studio, including APM Structure 3D, APM Strucmrc3D, APM Shaf of the APM WinMachine system, which shows an individual and innovative approach to training in the development of EP.

The Department of Mechanical Engineering and Modeling on an ongoing basis searches for new practice bases and concludes internship agreements with enterprises. After the first year, students undergo educational practice on the basis of the department in the amount of 2 credits. Professional practices I and II are provided after the second and third year in the amount of 2 and 4 credits. For internships, the department has internship agreements with a number of enterprises, as well as the best students can receive additional education under the academic mobility program at the AGH University of Science and Technology in Krakow, Poland, the University of Lorraine, France. Graduates of EP 6B07106 "Mechanical Engineering" will receive a Bachelor of Engineering and Technology qualification in the field of Mechanical Engineering and can work in the field of Mechanical Engineering and applied sciences, including industrial and social activities.

Professors from leading Universities of near and far abroad, leading experts from manufacturing companies and research institutes are invited to give lectures and consultations.

During the reporting period, foreign professors were invited to the Department of Mechanical Engineering and Modeling to give lectures and conduct scientific consultations for the teaching staff of the University, PhD-doctoral students, undergraduates and bachelors on various topical issues of calculations and design of mechanical systems: Doctor of Technical Sciences. prof. Pavlenko P.N. from the National Aviation University of Ukraine (Kyiv), 2016, Professor Bergander Marek from AGH University of Science and Technology, Krakow, Poland, 2018, Professor Mohanraj Murugesan from Hindustan College of Engineering and Technology, India, 2019.

The main development goals of the EP "8D07109 - Innovative Technologies and New Inorganic Materials" are to meet the needs of society in qualified personnel through the training of researcher in the field of chemical engineering, conducting research on the development of breakthrough innovative technologies and methods for obtaining new inorganic materials, including multifunctional action, and capable of solving modern problems in this area.

The educational program "8D07109 - Innovative technologies and new inorganic materials" is aimed at training specialists in the field of chemical engineering with a standard training duration - 3 years. Persons who have mastered the educational program of doctoral studies and defended a doctoral dissertation, with a positive decision of the dissertation councils of the university with a special status or the Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan, based on the results of the examination, are awarded the degree of Doctor of Philosophy (PhD) or doctor of profile and issued diploma of the state standard with the application (transcript).

The process of forming the plan of EP 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials is transparent. Not only teachers of the department, but also employers and students take part in its compilation.

At the stage of educational programs planning, working curricula are evaluated through the criteria for compliance with the requirements of the State Educational Standard of the Republic of Kazakhstan, standard curricula, recommendations for accreditation procedures, labor market

demands, and the latest research in the field of science. To assess the quality of the development of working curricula for disciplines, the criteria for compliance with working curricula, standard curricula (for compulsory component disciplines), intrauniversity requirements for the design of educational and methodological documentation are used.

Monitoring of the implementation of the development plan of the EP is considered at meetings of the academic councils of the institutes, the University Educational and Methodological Council and the Academic Council. Coordination of the educational services provided with the interests of employers makes gives possibilities to realize a socially significant goal - the professional adaptation of university graduates to the ever-changing trends of the labor market.

EP 8D06104 Cybernetics and artificial intelligence, 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials consider the needs of the state in the required number of trained specialists and in the necessary learning paths, taking into account the opinion of consumer enterprises and the business community. During the EP compiling, the opinions of the leading enterprises of the country are systematically requested and summarized, the EP of the partner universities is studied, students are interviewed about the content of the EP, and adjustments are made to the content of the EP, individual disciplines, teaching methods, and the modernization of the laboratory base. According to the provided review, the curriculum of the educational program is discussed annually with employers.

According to the above paragraph, the development of the curriculum for the EP "6B07106-Mechanical Engineering" was carried out in accordance with the curricula of the world best research and engineering universities, such as Massachusetts Institute of Technology – MIT, Stanford University, University of Cambridge, Georgia Institute of Technology, Pennsylvania State University, Tokyo University, National University of Singapore, Nanyang Technological University (Singapore).

Monitoring of the implementation of the development plan EP 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials is carried out by the directorates of institutes and Corporate development department. The results of evaluating the effectiveness of the implementation of the stages of development of the EP are used to adjust the development activities of departments, institutes and the university for the next academic year and are included in the work plan. EP development plans are adjusted annually during the development of modules and RUPs.

The obtained monitoring results are communicated to the management and stakeholders, including by posting information on the official website of the university, in accordance with the developed, implemented and up-to-date documented procedure of the university's quality management system.

According to the materials provided, the opinion of teachers on changing curricula and programs of academic disciplines is taken into account when discussing the need for changes at a meeting of the department and the council of the specialty/EP. The students' wishes are identified during their questionnaires, posted on the university website, as well as the opinion of employers is taken into account through the examination of curricula by the partner enterprise and constant contacts with employer enterprises.

All interested persons have the opportunity to influence the content of the plan for the development of the EP of the specialties of the corresponding department and have the right to vote when approving the plan.

For the timely updating of EP 6B07106 Mechanical Engineering, 8D07109 Innovative Technologies and New Inorganic Materials, the departments systematically monitor the state of science and practice, which allows the teaching staff to submit proposals to the specialty council, which determines the need to measure the content of the curriculum and disciplines, taking into account the wishes of students and employers.

The participation of employers, students and teaching staff of the department in the development of EP 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials is also regulated by the following events: invitation to the meeting of the

department; feedback from employers based on the results of industrial practice, research, scientific internships, feedback on graduates; reviews of the EP from representatives of organizations - potential employers. Students can give their suggestions on the teaching of disciplines, the inclusion of topics. The review of the EP is carried out by employers and stakeholders to identify real production requests formulated by employers and other stakeholders.

At the beginning of each academic year, information about the revision of the developed EP is brought to the attention of employers and students by official correspondence (information on the university website, letters, e-mail correspondence, etc.). All interested parties participate in the revision of the EP, which makes it possible to identify the real requirements of production formulated by employers and other stakeholders. The participation of employers in the revision of the EP is carried out through the mandatory inclusion of representatives of organizations in the Academic Council of the Institute. An annual survey of employers is conducted to assess the competence of our graduates.

The management of the EP operates on the principles of openness and accessibility for students, teaching staff and employers. The rector of the university has his own blog on the university website, as well as on the facebook, where all interested persons can communicate. The website of the university contains information about the institute and department, contact details of the heads of institutes and departments. All interested persons can contact the head of the department with any questions.

The student has a personal page on the educational portal of the university <http://sso.kaznitu.kz/account/login>, where you can view the student's educational achievements and educational materials (syllabuses, lecture materials, assignments for independent work) and the teacher's office hours. Also on their personal page, students can see the exam schedule, academic calendar.

The university has developed and operates a documented procedure DP KazNRTU 714. Questionnaire. Assessment of customer satisfaction, which reflects the rules, forms and timing of measures to monitor customer satisfaction (feedback). KazNRTU students have created a mobile application "SU Solutions", where any persons (students, teaching staff and employees) have the opportunity to ask a question, offer their ideas and ways to eliminate emerging problems. Monitoring is carried out by collecting ideas and problems that have arisen. Answers are provided by the structural unit to which the question is directed.

Analytical part

The mission, main goals, strategic directions of development, the quality assurance policy of the University and the tasks of the EP are fully developed, written in documents and implemented in all areas of activity.

Goals and objectives of the considered educational programs 8D06104 Cybernetics and artificial intelligence, 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials correspond to the strategic goal of the university, are formulated taking into account the requirements and requests of potential consumers, and based on an assessment of the demand for this educational program, the requirements of the state and society as a whole.

The evidence base and documents provided item by point correspond to the main criteria of the IAAR standards.

Development and management of educational programs 8D06104 Cybernetics and artificial intelligence, 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials is based on the application of a process approach in accordance with the strategy, mission, vision and values of the University.

In order to develop proposals for strategic planning of the development of institutes, departments and the entire university, specialized departments, educational institutes and relevant departments of the university systematically analyze the state and prospective development of industrial sectors of the Republic of Kazakhstan in order to adjust the content of the EP and the compliance of trained specialists with the requirements of the labor market.

The above remarks are explained by the management of the EP by structural changes at the university: since August 2021, due to structural changes, the department "Applied Mechanics and Engineering Graphics" has been divided into two departments: "Mechanical Engineering and Modeling" and "Descriptive Geometry and Engineering Graphics". The Department of Mechanical Engineering and Modeling also includes a part of the Scientific and Educational Center "Mathematics and Cybernetics", whose teaching staff is responsible for the educational program "Mathematical and Computer Modeling".

As a result of the analysis of the self-assessment report submitted during the visit of internal documents, conversations with target groups, it was found that stakeholders (students, teachers) are aware of the existence of the Strategic Development Plan of the University, the Policy and goals in the field of quality, internal regulations. At the same time, the university, the management of the accredited EP, during the visit of the EEC, did not demonstrate the development of a culture of quality assurance within the framework of the accredited EP, this issue was not reflected in the self-assessment report.

Prior to the start of the accreditation procedure, the report and the annexes to the report did not present plans for the development of the EP, information on the development plans for the EP was not found on the website. Thus, accordingly, part of the stakeholders in the development of the EP development plan has not been confirmed, and there is no regular revision of the EP development plan.

The Institute of Energy and Mechanical Engineering, the Department of Mechanical Engineering and Modeling provided reports on the implementation of EP development plans, including annual reports of the department and the institute. In the submitted reports, critical analyzes are reviewed and approved at meetings of the departments, the academic council of the institute and the university, including the educational and methodological council of the institute and the university.

The management of the EP needs to update the risks, especially in connection with structural changes at the university and the related personnel policy. The Corporate Development Department periodically organizes corporate courses on management systems, according to the approved plan.

The University provides annual advanced training for teaching staff and heads of departments, including employees of structural divisions.

The information provided on the head of the department of IM&M, head of EP 6B07106 "Mechanical Engineering" shows that Aidarkhan Kaltayev has extensive experience in the field of education and scientific research at the international level (he received scientific grants for research: 1) Heidelberg University of Germany for 1995, 2) German Ministry of Science and Technology for 1996, 3) Japanese Government for 1997, 4) International Science and Technology Center (ISTC) for 1998, 2002, 2003, 5) German Academic Exchange Service (DAAD) for 2004 and 2008 years. He is a member of the editorial board of the journal Archives of Mining Sciences of the Polish Academy of Sciences, a reviewer of the AIAA Journal of the American Institute of Aeronautics and Astronautics and the journal Engineering Applications of Computational Fluid Mechanics" of the Hong Kong Polytechnic University, which are included in the list of indexed journals in the Thomson Reuters database, etc.).

Many documents, including working curricula for disciplines, provided at the time of verification did not have an approval date.

At the department that implements EP 8D07109 Innovative technologies and new inorganic materials, the reports did not reflect information on the implementation of scientific research results in the context of specific disciplines in the educational and scientific process. The websites of the university and the department do not contain textbooks written by the teaching staff of the department.

The submitted documents as an evidence base for other items of the criterion comply with the IAAR standards.

Unfortunately, they did not submit a document where the management of the EP considers the possible risks associated with the preparation for the EP.

The management of the EP is trained in management programs. Head of the Department of HPI PE Kubekova Sh.N. presented a certificate confirming the completion of training (No. 0403416 of 01/22/2021). The results of the external and internal audit of the EP are taken into account in the work of the existing EP by making changes to the educational process: PMM, EP passport and CED, as well as in the development of future EP.

Strengths/best practice

- EP 6B07106 Mechanical Engineering: Availability 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.

- according to the educational program 8D07109 Innovative technologies and new inorganic materials are not available.

EEC recommendations

- for EP "8D07109 Innovative technologies and new inorganic materials":

Develop an action plan to reduce the risks associated with the design and implementation of the EP, the formation of the contingent, compliance with mandatory requirements in terms of personnel, logistics, educational and methodological support.

- for EP 6B07106 Mechanical Engineering:

Develop an action plan on possible risks, with a detailed SWOT analysis, related to the preparation for the EP,

Pay attention to improving the scientific activities of the department and the institute as a whole.

Implement effective implementation of joint/double-degree education and academic mobility.

To confirm the correctness of the evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties, according to the information provided, indicate the date of approval.

Conclusions of the EEC according to the criteria:

- for EP 8D07109 Innovative technologies and new inorganic materials:

According to the standard "Management of the educational program", 15 criteria are disclosed: 14 have satisfactory positions, 1 - suggests improvements.

- for EP 6B07106 Mechanical Engineering:

According to the standard "Management of the educational program", 15 criteria are disclosed: 10 have a satisfactory position, 4 - suggest improvements and 1 position has a strong side.

6.2 Standard "Information management and reporting"

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

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

- *EP management should demonstrate decision-making based on facts.*

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

- *EO should establish the frequency, forms and methods of assessing EP management, activities of collegial bodies and structural units, top management, the implementation of scientific projects.*

- *EO should demonstrate the determination of the order and ensuring the protection of information, including*

the identification of persons responsible for the accuracy and timeliness of the analysis of information and the data provision.

- *An important factor is the availability of mechanisms for involving students, employees and TS in the processes of collecting and analysing information, as well as making decisions based on them.*

- *EP management should demonstrate the existence of a communication mechanism with students, employees and other concerned parties, as well as mechanisms for resolving conflicts.*

- *EO should demonstrate the existence of mechanisms for measuring the degree of satisfaction of the TS needs, personnel and students within EP framework.*

- *EO should provide for the assessment of the performance and efficiency of activities, including in EP context*

- *The 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;*

- *academic performance, student achievement and dropouts;*

- *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.*

Evidence

Satbayev University operates both traditional processes for managing and transmitting information, as well as using software products and information systems, has its own development - the Educational Portal sso.satbayev.university, which establishes the main connection between the student and the teaching staff, including with other structural divisions and provides access to electronic educational materials of disciplines, educational and individual plans, schedules of classes and exams, information about advisors and employers, news and announcements. The accounts of students, teaching staff and employees of the University are created in a single corporate directory Microsoft ActiveDirectory, as well as the accounts are synchronized with the Microsoft AzureAD cloud service in order to gain access to the Microsoft cloud services used for training. As the main source of information data in the activities of the educational process, a database of the educational portal, permanently updated in real time, implemented on the basis of the Microsoft SQL Server product, is used. The database contains up-to-date data on the current situation at the University, on the number of doctoral students, academic performance, student population, etc. The DataCenter division conducts analytics and maintains statistics, receives a copy of the educational process data and processes the received data. Work continues to provide electronic publications in accordance with educational programs, the university has introduced a unified system for managing higher education of the Ministry of Education and Science of the Republic of Kazakhstan (ESUVO).

The University constantly carries out systematic work to improve the functioning of the system for collecting, analyzing and managing information. The main information flows of the university are: educational portal <http://sso.kaznitu.kz/account/login/>; distance education portal <https://polytechonline.kz/>; also Microsoft 365 platform; "Anti-plagiarism system" <http://strikeplagiarism.com/en/>; a webinar that allows you to conduct online lectures; placement of scientific articles by teaching staff and scientists of KazNRTU, etc. Each teacher of the department and doctoral student is assigned a login and password to access the educational portal <http://sso.kaznitu.kz/account/login/>, where they can see their schedule of classes and exams, conduct a journal of visits, place an educational and methodological complex of disciplines, fill out an individual curriculum, provide topics for dissertations, monitor the progress of students assigned to an advisor, put down points for students on current and midterm control, and view the results of final certification and exams. From the moment of receipt, all student data deals with the study process accumulated on the educational portal, starting with bypass data, current achievements and output data. The collected data make it possible to carry out an analysis in the context of one student, study group, by course, covering all elements of learning. The whole

information allows, on the basis of structural analysis and quantitative methods, to develop activities aimed at ensuring the quality of the educational program.

Management decisions are made on the basis of a comprehensive analysis of data and information in various areas of activity, in particular, according to the results of educational activities related to meeting the needs of consumers (employers, etc.) and the development of the student's personality.

In order to control and monitor the progress of students after the end of the attestation (terminal) week and after the end of the examination session, the teaching staff and advisers report at the meetings of the department in accordance with the form F KazNRTU 706-45. The results of progress in the department.

At the end of each academic semester and the academic year, at the department meetings, the reports of the teaching staff on educational, methodological, scientific work are presented, which is integrated with the individual page of the teaching staff on the portal. Based on the discussion of the teaching staff reports, corrective actions are applied in various areas of the department's activity, indicating the timing and actions to eliminate deficiencies and improve performance. In order to ensure control over the quality of the educational process, training sessions are monitored, the results of which are presented and considered at meetings of the EMC of the University. The Academic Council of the Institute and the Academic Council of the University are held once a month, where current issues related mainly to the educational and scientific activities of the teaching staff and students are considered. At the Academic Council of the Institute, the heads of departments are reported the semi-annual and annual results of the department's activities in accordance with Form F KazNRTU 705-10. Plan (report) of the institute (department).

According to the doctoral programs according to the academic calendar and IEP, doctoral students provide a semester report at the department meeting on the results of the dissertation research progress. Also, the results of research are presented at scientific conferences, published in journals, and introduced into the educational process. At the end of each academic semester and the academic year, at the department meetings, the reports of the teaching staff on educational, methodological, scientific work are presented.

Management of the educational process is based on the collegial decisions of the academic community of the university, taking into account the opinion of the students' environment. The management of research activities is based on the collegial decisions of the scientific community of the university. The corporate governance of the university is based on the accountability of the university departments and open procedures for appraisal of employees and competitive selection of new employees. Management of financial and economic activities is based on strict adherence to international financial reporting standards and independent control of the Board of Directors of the University. Evaluation of the activities of the management of the departments, as structural divisions of the university, is carried out in accordance with the Documented procedure of the DP KazNRTU 801. Internal audit with the involvement of certified teaching staff and employees of the University is carried out twice in academic year, according to the approved schedule for conducting internal audit (in the documented procedure of the DP KazNRTU 502. Analysis of management established the procedure and criteria for conducting an analysis of activities).

The University has an "Information Security Policy". According to functional responsibilities, information protection is carried out by means of role differentiation and by using logins and passwords. This information security policy of the university provides for the adoption of the necessary measures in order to protect information assets as material assets of the university from accidental or deliberate modification, disclosure or destruction, as well as to maintain the confidentiality, integrity and availability of information, ensure the processes of information interaction with customers and partners. Each university employee is responsible for maintaining information security. The employee must have the timely and complete provision of information necessary for him to perform his duties. Responsible persons for the EP are appointed by the heads of the department. All responsible persons, after familiarizing themselves with the requirements

for them, prescribed in the documented procedures, sign in the form F KazNRTU 401-03. Familiarization journal.

The management of the University, teaching staff and students take an active part in planning, implementation and monitoring of all processes carried out at the University. The University has a practice of creating working groups, commissions in order to monitor all processes at the level of departments, institutes and the University. Certified and experienced teaching staff and students take part in the work of such groups. Thus, they directly influence the decision-making to improve the activities of the University. For the successful involvement of personnel in improvement activities, there is a practice of granting authority to take measures, determining those responsible for areas in structural divisions; use of the mechanism for the removal of inconsistencies by the heads of structural divisions; participation of heads of departments in the formation of policy and goals in the field of quality; consideration of staff proposals (identified during the survey, in the process of discussion on the forums of the educational portal) to improve working conditions.

In accordance with the Code of Corporate Ethics and the Code of Academic Integrity approved at the university, all members of the university society are required to inform the head of the events or facts that arise that lead this employee to a conflict of interest when making decisions or voting. In this case, the head of this employee is obliged to suspend the decision-making process by this employee. In case of silence of such facts and their subsequent disclosure, administrative responsibility is established, determined by the Disciplinary Commission of the University. The University annually conducts its own internal monitoring with self-assessment for the presence of corruption risks or conflicts of interest in relations, and in accordance with the obligations of membership, the University is subject to external monitoring, according to the honesty assessment by the League of Academic Integrity.

To assess the effectiveness and update the Quality Policy, the university conducts questionnaire surveys of the teaching staff "Satisfaction of teaching staff with the university" and students "Teaching staff through the eyes of a student", "Student satisfaction with the university" at least once a year. The results of stakeholder satisfaction monitoring are widely used in drawing up programs for the further development of the university, evaluating corporate governance and developing measures to improve the quality of student training, certification and election to a position, and differentiated remuneration for faculty.

The university has an information management system containing a database of students (enrollment order, transfer, restoration, information about the current progress of students), degrees awarded, as well as information about graduates and their employment (<http://portal.kazntu.kz/>).

The annual subscription of the university is up to 30 different sources. The information needs of the EP in foreign publications are satisfied by the collections of scientific journals from Wiley, ScienceDirect, Scopus, WoS, EBS "IPRbooks", EBS "Lan". Periodicals in the Kazakh language on the profile of EP in electronic form are presented in the RMEB, KazNEB. As part of the policy of open access to scientific information, students get access to institutional repositories. K.I. Satbayev KazNRTU has a publishing house Polytech, which publishes booklets, brochures, flyers, as well as books in almost all areas of modern scientific knowledge - educational and scientific literature for students, graduate students, teachers and specialists, manuals for university applicants, and also popular science, science fiction and reference literature. The University has its own journal "KazUTZU-Khabarshysy - Bulletin of KazNRTU" <https://official.satbayev.university/ru/izdatelstvo-polytech>.

The management of the university provides all the necessary information in various fields of science to employees, teaching staff and students through a constantly growing library fund, access to Internet resources, held olympiads and scientific conferences, seminars, etc.

The processing of personal data of students, employees and teaching staff is carried out on the basis of their documented consent. The university has an HR department, where each employee, upon employment, along with personal documents, provides a signed consent to the

collection and processing of personal data in the form F KazNRTU 601-22. Consent to the processing of data.doc, as well as to the protection of their personal data in ways that do not contradict the legislation of the Republic of Kazakhstan.

Analytical part

Analysis of the self-assessment report for compliance with the requirements of the standard "Information management and reporting" according to EP 8D06104 Cybernetics and artificial intelligence, 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials, the information provided by the university during the visit, the commission notes that the university has a multi-level information management and reporting system. The EEC believes that the internal regulatory documentation developed at the university as a whole (organizational standards, regulations, rules, 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 a well - defined information management policy and structure for information collection and reporting.

The use of information databases is carried out in all areas of the university, I would also like to note the availability of information on the university website.

All the necessary forms, methods for assessing the EP, show the presence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.

The website of the departments does not provide for a regular reporting system that reflects all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research.

The activities of the National Library are based on the principle of openness and accessibility of information resources and services for all participants in the scientific and educational process. All information announcements of the scientific library are posted on social networks and are available to students and teaching staff.

The university has developed a combined-system approach to receiving applications and complaints from students, which are resolved on an individual basis.

To the question of the questionnaire "Assess the involvement of teaching staff in the process of making managerial and strategic decisions" "very good" was answered by 28.2%, "good" by 59.2% and "poor" by more than 11%.

Strengths/best practice

Availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information to measure the satisfaction degree with the needs of students, teaching staff and staff within the EP.

EEC recommendations

- for EP 8D07109 Innovative technologies and new inorganic materials:

Post all types of reports on the implementation plan of the department and the institute on the website of the department.

- for EP 6B07106 Mechanical Engineering:

It is recommended to pay attention to the availability and openness of the plans and reports of the department on the official website of the department, including the composition and brief information on teaching staff assigned to the department.

Placement in the information base working curricula on the taught discipline.

Conclusions of the EEC according to the criteria:

- for EP 8D07109 Innovative technologies and new inorganic materials:

According to the Information Management and Reporting standard, 16 criteria are disclosed: 15 have a satisfactory position, 1 suggests improvement.

- for EP 6B07106 Mechanical Engineering:

According to the standard "Information Management and Reporting" 16 criteria were disclosed: 1 is a strong point and 14 are satisfactory positions, 1 suggests improvement.

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

- EO should define and document the procedures for EP development and its approval at the institutional level
- EP management should ensure that the developed EP meets the established objectives, including the expected learning outcomes
- EP management should ensure the availability of developed models of EP graduate, describing the learning outcomes and personal qualities
- EP management should demonstrate the performance of external examinations of EP content and the planned results of its implementation
- The qualification awarded upon EP completion should be clearly defined and correspond to a certain NQS level
- EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes
- An important factor is the ability to prepare students for professional certification
- EP management should provide evidence of the participation of students, TS and other stakeholders in EP development, ensuring their quality
- EP complexity should be clearly defined in Kazakhstani credits and ECTS
- EP management should ensure that the content of academic disciplines and planned results are consistent with the level of education (bachelor's, master's, doctoral studies).
- EP structure should provide for various types of activities to ensure that students achieve the planned learning outcomes.
- An important factor is the correspondence between EP content and EP learning outcomes, implemented by institutions of higher and (or) postgraduate education in the EHEA

Evidence

The University has a widely approved procedure for the development, quality assessment and approval of educational programs of higher and postgraduate education of all three levels of training of specialists, which are formed taking into account the mission of the university. Educational programs developed with the participation of potential employers, on the basis of scientific achievements of science and practice, taking into account the opinions of students, are necessarily considered at a meeting of the graduating department, the scientific and methodological council of the institute, at the section of educational programs and curricula of the EMC of the university and then only approved Academic Council of the University.

Development of working curricula (WC) for EP 8D06104 Cybernetics and artificial intelligence, 8D07109 Innovative technologies and new inorganic materials and 6B07106 Mechanical Engineering based on State Standards, the catalog of elective disciplines of CED, developed by the graduating department and individual curricula of students (IC). The teaching staff develop working curricula (syllabuses); educational and methodological material is developed, in accordance with the Rules for the development of educational programs at Satbayev University, in accordance with Dublin descriptors agreed with European system qualifications.

Goals and objectives of accredited educational programs are determined on the basis of the strategic documents of the university: "The University Development Strategy 2026" (http://kazntu.kz/ru/aboutuniversity/strategicheskije_dokumty), the University Development Program and Plan until 2025, quality assurance" (<https://official.satbayev.university/ru/vnutrennie-normativnye-dokumenty/3-uroven-upravlenie-obrazovatelnyh-protsessom>). The development of working curricula (WC) is carried out on the basis of State Standards, the catalog of elective disciplines of the CED, developed by the graduating department and individual curricula of students (IC). Teaching staff develop working

curricula (syllabuses), educational and methodological material is developed in accordance with the Rules for the development of educational programs at Satbayev University

The Development Program of the EP "8D07109 Innovative Technologies and New Inorganic Materials" for 2022-2026 was approved with a new mission aimed at fulfilling the goals and objectives of the national education system and integration into the international education system, corresponding to the available resources, determining the long-term priorities for the development of the university as a research university.

The system, existing at the university, is focused on involving the chairmen of the SAC, reviewers of graduation theses, practice leaders, and interested employers as external experts in the assessment of the quality of educational programs. For the development of educational programs, employers from JSC "A.B. Bekturov Institute of Chemical Sciences, Kazphosphate LLP, which are also the bases for students' practice.

The content of the EP, agreed with the employer, is considered and approved at the meetings of the department and faculty. Specialists of the Department of Academic Affairs, representatives of employers, departments and faculty, students, graduates participate in seminar-meetings to discuss modular educational programs.

The Department of chemical processes and industrial ecology content of the program by regulates the balance between theoretical and practice-oriented disciplines, based on the need and relevance of the inclusion of disciplines for the professional training of students in personnel and material and technical support of the department.

According to EP 8D06104 - "Cybernetics and Artificial Intelligence", unfortunately during the accreditation of the EEC, it was not possible to confirm with concrete facts the statement of the EP management that "The development of the EP was carried out jointly with foreign partner universities Hong Kong Polytechnic University, St. Petersburg State University, Novosibirsk State University and the University of Illinois at Chicago. A similar situation is with the involvement of students in the development of the content of the EP - doctoral students Myan Veronika and Amir Ayala, who were present at the meeting with the EEC, could not even demonstrate an understanding of the fact that they have the opportunity and mechanisms to participate in the development and quality assurance of the EP.

The EEC failed to find answers to the question regarding the selection of experts who carry out external examination of the educational program to ensure the independence of the decisions made.

Guide EP 8D06104 - "Cybernetics and Artificial Intelligence" did not provide specifics on how the content and structure of the EP is revised when the labor market changes and what is the mechanism for making changes to the EP?

The quality of the development of educational programs is assessed in accordance with DP KazNRTU 706. Assessment of knowledge and liquidation of debt, compiled on the basis of legislative regulations of the Government of the Republic of Kazakhstan, the Ministry of Education and Science of the Republic of Kazakhstan, internal regulations.

All disciplines of the curriculum are grouped into cycles of general education disciplines (GED), basic disciplines (BD) and major disciplines (MD). In the educational program of doctoral studies in the field of study 8D07109 Innovative technologies and new inorganic materials, the following distribution of credits between cycles is established: in total - 180 credits, of which BD - 25 and MD - 20, Research-123, preparation and defense of a doctoral dissertation -12.

The participation of the university community in the development of the mission, goals and objectives is confirmed by protocol. A working group of the university was formed, including all representatives of the main stakeholders of the university: scientists, teachers, students, graduates, doctoral students, members of the Board. The main indicators of the development of the university are determined by the University Development Program for 2022-2026.

Students and teaching staff use the educational portal, polytechonline.kz and Microsoft 365. As part of the transition to distance learning, SU has amended the CTO Rules, as well as the rules for assessing student learning and conducting exams. As well as the internal services,

students can use Microsoft Teams. This is a corporate platform of the university with an incorporated polytechnonline platform, access to which is provided by Satbayev University. In the distance learning, a student-oriented model of organizing the educational process has been adopted. Access is provided to most full-time university programs <https://polytechnonline.kz/my/>.

The survey conducted during the EEC visit showed:

- Informing the requirements in order to successfully complete this educational program (specialty) is “completely satisfied” - 82.9% of students;
- 75.6% are “completely satisfied” with informing students about courses, educational programs and academic degrees received.

Analytical part

In the educational programs 8D07109 Innovative technologies and new inorganic materials and 6B07106 Mechanical Engineering, a set of competencies has been formed that integrates the combination of theoretical knowledge with the production structure, including research institutes and manufacturing companies that reflect a modern innovative approach. Analyzing the standard "Development and approval of the educational program", members of the EEC note that EP 8D07109 Innovative technologies and new inorganic materials and 6B07106 Mechanical Engineering are provided with WC, syllabuses, UMKD, which are generally drawn up in accordance with regulatory documents. A set of disciplines at CED contributes to the formation of students' professional competencies. However, syllabuses usually have only one source of literature, the content of which does not allow the doctoral student to fully master these topics.

The curriculum of the EP "Mechanical Engineering" was developed in accordance with the curricula of the best research and engineering universities in the world, such as the Massachusetts Institute of Technology - MIT, Stanford University, University of Cambridge, Georgia Institute of Technology, Pennsylvania State University, Tokyo University, National University of Singapore, Nanyang Technological University (Singapore) and others. Thus, the mission of the educational program "Mechanical Engineering" is to provide the market with highly qualified specialists with fundamental knowledge in the fields of natural sciences and Mechanical Engineering for work in the field of high-tech engineering. The University cooperates with the departments of foreign universities in the relevant areas on the issues of internships for teaching staff and students, research and research practices, etc.

The formation of professional competence of a specialist occurs in four stages: at the first stage, key competencies are developed in the context of future professional activity; on the second - the student "immerses" in professional tasks, masters ways to solve them, which contribute to the formation of general professional competence based on the key one; on the third - professionally specialized competence is formed on the basis of a developed general professional; and then comes the stage in which specialized competence develops. The required competencies must correspond to the general educational program of the specialty. Competence components are formed during the study of various disciplines, as well as in various forms of practical and independent work. The content of competencies that are planned to be formed in the process of studying at a university determines the composition of disciplines and the content of their programs

EEC experts note that, based on the results of the analysis of the studied documents and interviews with students and teaching staff, the involvement of external experts in reviewing the EP has not been proven. The management of the EP also did not demonstrate the existence and functioning of mechanisms for reviewing the content and structure of the EP, taking into account changes in the labor market and the requirements of employers.

There is an involvement of the teaching staff, advisors of student groups, employers in the formation of the learning trajectory.

Most of the research carried out jointly by university staff with students is implemented and widely used in the educational process.

The process of formation of educational programs is transparent, and not only leading professors, associate professors of the department, but also employers, as well as students take part

in its preparation. The presence of developers of a large scientific and pedagogical experience, work experience in the specialty in production guarantees the quality of the EP.

The plans for the development of the EP are fully developed, the procedure for developing and auditing the developed EP and the audit of the current EP are fully prescribed. Demonstrated internal and external expertise of the EP.

The qualification obtained upon completion of the development of the EP, it corresponds to the State Compulsory Standard of Higher and Postgraduate Education, the National Qualifications Framework, the Sectoral Qualifications Framework.

During development of curriculum of the EP, instead of the block-modular approach, a modular-competence approach was used, which key principle is the orientation towards goals that are significant for the field of activity in the field of operation of technological machines, chemical technology of inorganic substances.

There is no coordination of the EP with foreign experts. Also, the accredited EP does not have the opportunity to prepare students for professional certification.

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

- the speed of response to feedback from teachers regarding the educational process is “fully satisfied” - 80.5%; partially satisfied - 14.6%; “not satisfied” -5%;

- “the teacher presents the material in an interesting way” – “completely agree” – 51.2%, “agree” – 31.7%, partially agree – 12.2%, “completely disagree” – 4.9%.

To the question to teachers “How does the content of the educational program meet your scientific and professional interests and needs?”, the answer “very good” was given by 40.8%, “good” - 54.9%, “relatively bad” and “bad” - in the sum of 4.2% of respondents.

Strengths/best practice

- according to EP 6B07106 Mechanical Engineering:

The EP and the content of the disciplines are developed in accordance with the curricula of the world's leading universities, which ensures compliance with the established goals, including the expected learning outcomes.

Making adjustments to the EP on the recommendations of employers confirms the participation of students, teaching staff and other interested parties in the development of the EP, ensuring its quality. Conducting external examinations of the content of the EP (reviews of employers and reviews of leading companies in the country and far abroad) and the planned results of its implementation

- according to EP 8D07109 Innovative technologies and new inorganic materials, the development and analysis of the EP was agreed and reviewed by employers and students.

EEC recommendations

- for EP 8D07109 Innovative technologies and new inorganic materials

none.

- for EP 6B07106 Mechanical Engineering:

none.

Conclusions of the EEC according to the criteria:

- for EP 8D07109 Innovative technologies and new inorganic materials:

According to the standard "Development and approval of basic educational programs", 12 criteria are disclosed: 11 have a satisfactory position, 1 has a strong position.

- for EP 6B07106 Mechanical Engineering:

According to the standard "Development and approval of basic educational programs", 12 criteria are disclosed: 2 are strong positions and 10 have a satisfactory position.

6.4. Standard "On-Going Monitoring and Periodic Review of Educational Programme"

• *EO should define mechanisms for monitoring and EP periodic evaluation in order to ensure the achievement of the goal and meet the needs of students and society. The results of these processes should be aimed at EP continuous improvement*

- *Monitoring and EP periodic evaluation should provide for:*
 - *the content of the programmes in the light of the latest scientific achievements in a specific discipline to ensure the relevance of the taught discipline*
 - *changes in the needs of society and the professional environment*
 - *workload, the level of academic achievement and students' graduation*
 - *the effectiveness of student assessment procedures*
 - *expectations, needs and satisfaction of students with EP training*
 - *educational environment and support services and their compliance with the objectives of EP*
 - *EO, EP management should define a mechanism for informing all concerned parties about any planned or taken actions in relation to EP*
- *All changes made to EP should be published. EP management should develop a mechanism for revising EP content and structure, considering changes in the labor market, employers' requirements and social demands of society*

Evidence

The graduating department that implements this program is responsible for ensuring the quality of the EP. The developed educational program is submitted for discussion by the EMC Institute and the EMC University. After development, the educational program is sent for examination and recommendation for approval by the Academic Council of the University. Further approved by the rector based of the decision of the Academic Council of the University. Quality monitoring and periodic evaluation of the educational programs of the university ensure the achievement of the goal and meet the needs of students and society through internal and external audits, accreditation, rating of educational programs, evaluation of students using a set of statistical and analytical evaluation indicators of the EP. To assess the quality of educational programs and achieve goals in the learning process at the university, the following methods are used: - questionnaire survey "Teacher through the students' eyes"; – annual certification of teaching staff; – interviews with students, graduates and business representatives; – open lectures and practical exercises; - mutual attendance of teaching staff classes; – visits to classes of teachers by members of various commissions; – involvement of employers in the evaluation of educational programs and the conduct of classes; – external examination of educational and methodological documents; – studying the experience of leading domestic and foreign universities; – current control of knowledge; – boundary control of knowledge; - final control of knowledge. The decision to adjust the curricula is made by the EMC of the Institute and the University; the content of syllabuses and work programs by the graduating department and the directorate of the institute. These decisions are recorded in the protocols of the departments meeting, the specialty council of the Institute and the University.

During the EP monitoring, the relevance of the EP, the fulfillment of the goals and objectives set by the EP, the logic of building the EP, the achievement of learning outcomes by students and their compliance with the requirements of professional standards, the extent to which the EP meets the needs of stakeholders, etc. are evaluated. Monitoring also determines the compliance of the EP with regulatory legal acts in the field of education, the relevance of the EP with its scientific validity, prospects and ways of its development. The mechanism of internal monitoring and quality assessment of the EP ensures constant monitoring of the quality of educational programs, educational and methodological support, the introduction of innovative teaching methods in the educational process, and the improvement of methods for assessing the educational achievements of students. This monitoring is carried out by the teaching staff, department, institute, students and Departments for Academic Affairs and Corporate Development External monitoring is carried out as part of the accreditation of educational programs, with participation in ratings and other events.

The University actively interacts with major employers in organizing internship bases, developing curricula, evaluating learning outcomes and employment. To recruit for a research

practice, organizations request a transcript of academic performance, a resume, and an internship plan. The growth dynamics of concluded contracts shows an increase compared to the previous period. In the vast majority of cases, the enterprise where the student undergoes an internship becomes the place of his professional activity in the future. Practically internship bases cover all industrial regions of Kazakhstan.

Monitoring of the teaching staff satisfaction is carried out at the graduating departments, through the annual reporting of the teaching staff, discussion of reports at the department meetings, organization of methodological seminars. Based on the results of these activities, the departments analyze the activities of each teaching staff and their satisfaction with the 61 results obtained. The suggestions and comments of each of the teachers are taken into account at developing activity plans of the department for the next academic year, and are also considered at adjusting plans and forming a development plan for the educational program. In addition, the motivation of employees for more efficient and creative work is the improvement of working conditions, the provision of the educational process with the necessary equipment of a new generation.

The list of stakeholders of the educational process includes: the State; teaching staff; students; enterprises, organizations and employers that supply universities with their goods and services (equipment, software, furniture, stationery, etc.); suppliers of labor resources (in the form of employment agencies or in the form of individual offers from potential employees required by the university); financial resource providers – banks and sponsors; university graduates. After completion of all procedures for making adjustments / changing the EP, all interested parties are informed about the upcoming adjustments / changes. Informing all interested parties about any actions in relation to the EP takes place using the portal <https://satbayev.university.ru> of electronic means of communication and sending out invitations.

A regular survey of students is conducted for feedback and assessment of the quality of the educational program. The working group for the development of the EP involves teachers, students and employers. Every year, the working curriculum of the EP is reviewed and updated. The department monitors the implementation of the EP development plan, systematically reviews and hears reports on the effectiveness of its implementation at department meetings at the beginning of each academic year, i.e. monitors the implementation of the plan when adjusting the EP Graduate Model. All process documents are maintained in accordance with the nomenclature of files of structural divisions and are drawn up in accordance with quality requirements. In order to analyze the implementation of the plan, the compliance of the educational process with regulatory documents, departments and the university as a whole are constantly monitoring the organization of the quality system of the educational process.

The department of ME&M does not monitor the implementation of the development plan for EP 8D06104 - "Cybernetics and Artificial Intelligence" and does not monitor its implementation when adjusting the EP graduate model, since the EP development plan itself is missing. Many activities for monitoring and periodic evaluation of the EP are only declared. Even the self-evaluation report states that according to the standard "Continuous monitoring and periodic evaluation of educational programs", 5 criteria are disclosed.

There is no monitoring of the content of the program in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the discipline taught. The syllabuses do not contain additional literature reflecting the new achievements of science and technology within the discipline. The topics (content) of some disciplines do not fully correspond to the title and the planned learning outcomes. For example, in the discipline "Machine Learning Theory" it concerns such topics as "Convex Optimization" and "Stochastic Gradient Descent".

As a result of the EEC activity, it was not possible to obtain specific data on the frequency, content and results of interviewing and questioning students at the EP "8D06104 - Cybernetics and Artificial Intelligence".

Changes made to the EP are not posted on the website.

Analytical part

The educational institution has introduced a system of continuous monitoring of the relevance of the EP and a periodic assessment of all existing EPs is carried out. Adjustment of the EP is carried out through internal and external audits, accreditation, including the rating of educational programs, evaluation of students using a set of statistical and analytical evaluation indicators of the EP.

There is a systematic approach to assessing the quality of educational programs.

All decisions on adjusting the content of syllabuses and work programs are recorded in the minutes of the meeting of the departments, the council of the specialty of the Institute and the University.

Evaluation of the effectiveness of the EP is monitored through a survey system among students, teaching staff and employers.

EEC notes that the university in the context of the EP "8D06104 - Cybernetics and Artificial Intelligence" does not provide a revision of the content and structure of the educational program with employers. However, the Commission draws attention to use different methods to detect changes in the labor market. In particular, it is recommended to analyze the labor market in order to take into account the expected learning outcomes in the content of the EP, the possibility of risks in the implementation of the EP.

In addition, according to the analysis of the information provided on the website of the university and the department of IM&M, a some positions such as learning outcomes, changes made to the EP, reviews and reviews of the EP by external stakeholders were not reflected on the site.

In this regard, the EEC believes 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 the EP.

According to the results of the survey:

The material proposed by the teacher is relevant and reflects the latest achievements of science and practice; "fully agree" - only 53.7% of students; the rest are "agree" and "partially agree".

The evaluation criteria used by the teacher are understandable – "strongly agree" 68.3%;

The teacher objectively assesses the achievements of the students - "completely agree" 63.4%.

Educational programs 8D06104 Cybernetics and Artificial Intelligence, 8D07109 Innovative Technologies and New Inorganic Materials and "6B07106 - Mechanical Engineering" were opened in 2019, which also makes it difficult to evaluate this standard.

Strengths/best practice

according to EP 6B07106 Mechanical Engineering - Monitoring curricula in the specialty of the world's leading universities and the formation of EP based on this analysis confirms a systematic approach in monitoring and periodically assessing the quality of EP.

EEC recommendations

- for EP 8D07109 Innovative technologies and new inorganic materials -none.

- for EP 6B07106 Mechanical Engineering:

The head of the department should pay attention to the content of the EP in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline being taught.

Conclusions of the EEC according to the criteria:

- for EP 8D07109 Innovative technologies and new inorganic materials:

According to the standard “Continuous monitoring and periodic evaluation of basic educational programs”, 10 criteria are disclosed: 10 have a satisfactory position.

- for EP 6B07106 Mechanical Engineering:

According to the standard “Continuous monitoring and periodic evaluation of basic educational programs”, 10 criteria are disclosed: 1 is a strong position, 8 have a satisfactory position, and 1 position suggests improvement.

6.5 Standard “Student-Centered Learning, Teaching and Performance Evaluation”.

- *EP management should ensure respect and attention to different groups of students and their needs providing them with flexible learning trajectory*
- *EP management should provide for the use of various forms and methods of teaching and learning*
- *An important factor is the availability of own research in the field of teaching methods of EP academic disciplines*
- *EP management should demonstrate the existence of feedback mechanisms on the use of various teaching methods and assessment of learning outcomes*
- *EP management should demonstrate the existence of mechanisms to support the students’ autonomy with simultaneous guidance and assistance from the teacher.*
- *EP management should demonstrate the existence of a procedure for responding to student complaints*
- *EO should ensure consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including appeal*
- *EP should ensure that the procedures for assessing the learning outcomes of EP students are consistent with the planned results and programme objectives. Criteria and methods of assessment within EP framework should be published in advance*
- *EO should determine the mechanisms for ensuring the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation*
- *Evaluators should be proficient in modern methods of assessing learning outcomes and regularly improve their qualifications in this area*

Evidence

The educational programs 8D06104 Cybernetics and Artificial Intelligence, 8D07109 Innovative Technologies and New Inorganic Materials and "6B07106 - Mechanical Engineering", includes student-centered learning processes: ensures the development of flexible learning paths; creates conditions for increasing the motivation and involvement of students in the educational process; ensures consistency and objectivity in the assessment of learning outcomes. The formation of individual educational trajectories is carried out on the basis of the Academic Policy and CED, which contains a list of all disciplines of the elective component, indicating the purpose of the study, summary and expected results of the study. The planning of the educational trajectory (enrollment in disciplines) is carried out in accordance with the academic calendar. As part of the educational program, when forming an educational trajectory, students have the opportunity to fill out an individual curriculum on their own. Each academic period includes the disciplines of the compulsory component and the disciplines of the optional component from the Catalog of elective disciplines of the modular educational program, which describes the scope, prerequisites, postrequisites, goals, content of modules and learning outcomes. The individual educational trajectory of students is formed on the basis of the compulsory and elective components of the educational program. EP students have full information about the list of module disciplines and their codes, prerequisites, goals and content, they are also informed about the form of control and the necessary teaching aids, and the main learning outcomes. The procedure for enrolling in disciplines for the choice of specialties is organized by the department (office) of the registrar in electronic form with methodological and advisory assistance from departments and advisers.

In order to ensure an individual approach in teaching students with problems, i.e. those who cannot cope with academic requirements, the current rules for organizing the educational process on credit technology provide for scheduled consultations within the framework of the SROP, allowing you to re-take the course and gain the necessary transfer score. To conduct consultations

within the framework of office SROP, the departments draw up schedules for consultations of teachers for each semester. Similar information is provided in the discipline syllabuses. For students of EP 6B07106 "Mechanical Engineering" and "8D06104 - Cybernetics and Artificial Intelligence", computer classes equipped with the following modern software have been created on the basis of the ME&M department: MATLAB, APM WinMachine, TRNSYS, Comsole Multiphysics.

To ensure the successful training of students from "EP 8D07109 Innovative Technologies and New Inorganic Materials", there are computer classes equipped with modern Chemcad software at the Department of chemical processes and industrial ecology.

To ensure the successful teaching of disciplines, teachers of the department develop textbooks, teaching aids and guidelines for conducting classes, which are periodically reviewed, discussed and approved by the department and the methodological council of the institute. University teachers annually improve their skills and participate in international conferences and seminars held in Kazakhstan and abroad; in practical seminars and specialized exhibitions. Teachers independently determine teaching methods from a wide range of professional teaching methods, such as project-based learning, blended learning, using various student assessment tools. The compliance of the applied methods of teaching and learning with the goals of the academic discipline, module, EP is determined by ensuring that the teaching staff meets the qualification requirements, level and specifics of the educational program. Teachers conduct open lessons, share their experience with colleagues. Leading teachers are assigned assistants who learn from the experience of conducting classes.

To assess educational achievements, various forms of control and certification are provided - monitoring of current progress, intermediate and final certification of students, the frequency and duration of which is carried out in accordance with the curricula, academic calendar and professional curricula developed on the basis of state general educational standards.

The structure and content of the student's independent work management model should provide the following didactic functions: the formation of cognitive activity; the formation of independence as a personality trait; conscious assimilation of concepts and clarification of the logical connections between them; operational control and self-control of trainees; creation of favorable conditions for a differentiated approach to teaching; strengthening the professional training of a specialist. The task of the teacher is to create such conditions in the educational process, which would incentive motives for independent work. The fulfillment of this task will require continuous improvement from the teacher, i.e. adjusting its content side of the activity, which can be effectively implemented only through a variety of methods. Educational process is the most important part of the SU training process. Creation of a favorable environment and conditions for the development of professional and general cultural competencies of students (morality, patriotism, tolerance, citizenship, etc.) and becoming active members of the community. Adaptation of students on campus, social support, solving various issues of student life. At meetings of the Student Financial Aid Commission, applications for tuition discounts are considered. Taking into account the academic performance, the UNT points (for the 1st course) make discounts for education, in accordance with the Regulations on the Financial Aid Commission. Candidates of undergraduate and graduate applicants for vacant state educational grants are also considered.

Satisfaction with the quality of education in an accredited EP is assessed according to the following criteria: the ability to present educational material in a meaningful, accessible and consistent way and organize IW, the use of active handouts in the classroom, the objectivity of the teaching staff in assessing classes and intermediate certification of students, the level of ethical behavior and culture of the teaching staff. In general, a survey is conducted to assess the satisfaction of students with the quality of teaching disciplines, provided educational support, the teacher through the eyes of students and satisfaction with the university as a whole. Also, students can post their complaints and suggestions in the previously described SU solutions mobile application. Students can sent a complaint on any issues, such as the quality of the organization of

the educational process and social, creative development, as well as simply ask to resolve the conflict or even offer food delivery. During the work of the EEC, it was not possible to get an answer from the management of the EP to the question of how the labor intensity of the student's independent work is determined and how the procedure for monitoring it (and assessing satisfaction) is carried out.

Complaints, such as appeals for interim and current (rating) control, are governed by the Regulations on the Appeal Commission. The decision of the Appeal Commission on the evaluation of the intermediate and final certification is final. The results of the appeal are documented in protocol.

The procedure for conducting ongoing monitoring of progress, midterm control, intermediate and final certification of doctoral students is regulated by chapters 6 and 9 of the Rules for credit technology of education.

As part of external procedures, educational programs undergo accreditation of programs and monitoring of membership in the League of Academic Integrity. An external examination of individual elements of the educational program is carried out. In accordance with the Law on Education of the Republic of Kazakhstan, educational programs on a voluntary basis undergo the accreditation procedure in agencies that are in the national register of accreditation bodies and take part in ratings.

Improving the quality of the educational process is facilitated by the advanced training of teaching staff, including in the field of methods for assessing learning outcomes. Training of teaching staff of the EP in advanced training courses is carried out on the basis of other universities, as well as in specialized training centers of the Republic of Kazakhstan. Certificates and certificates of advanced training of teaching staff are placed in the personal files of teachers. The advanced training of teaching staff also takes place in the form of participation in scientific and methodological seminars, conferences, exhibitions and other events, in the form of research work.

During classes for the accredited EP, the teaching staff uses interactive teaching methods using digital innovative technologies: the method of problem presentation, presentations, discussions, the method of critical thinking, business and role-playing games, group work, brainstorming, etc. However, the question remained unanswered as to whether at what level are decisions made regarding innovations in the educational process and monitoring the effectiveness of their implementation within a specific EP.

For doctoral programs, only those doctoral students who have an admission rating take the exam. When calculating the admission rating, the assessments of the current control and boundary control are necessarily taken into account. Independent work of doctoral students, also included in the current control, must be defended before the session and serve as admission to the exam in this discipline. The procedure for conducting ongoing monitoring of progress, midterm control, intermediate and final certification of doctoral students is regulated by chapters 6 and 9 of the Rules for Credit Technology of Education . General planning and coordination of educational programs is carried out in accordance with the DP KazNRTU 705 and 711.

University teaching staff are fully versed in modern methods for assessing learning outcomes and regularly take refresher courses and specialized training to improve teaching skills. For example, almost all teaching staff of the department of ME&M passed the web courses "Improving skills in distance education", "Conducting an exam in the form of distance learning", training "Improving pedagogical skills", etc.

Analytical part

The university has a high academic standard, which is based on a support and learning oriented approach within the chosen individual trajectory for students.

The university has a combined system of involvement in the academic process of the student, to form the procedure for the free choice of a teacher and the schedule of classes for students if there are vacancies for this course.

Modern software products are being actively introduced into the educational process, which, in turn, make it possible to ensure the effective conduct of classes in the disciplines of the specialty in accordance with the WC.

Teaching staff of EP 8D07109 Innovative Technologies and New Inorganic Materials and 6B07106 Mechanical Engineering are actively involved in the process of introducing and effectively applying innovative methods in the learning process, which in turn makes it possible to successfully prepare future specialists both for work in production and for teaching.

It should be noted that at analyzing the criterion of the standard "Student-centered learning, teaching and assessment of progress", it was found that the teaching staff uses both traditional and innovative teaching methods when conducting training sessions. This was also confirmed in the course of communication with doctoral students.

The University ensures the consistency, transparency and objectivity of the mechanism for evaluating learning outcomes for each EP, as well as the appeal.

The teaching staff of the EP regularly improve their skills in the field of modern methods for assessing learning outcomes.

Strengths/best practice

according to EP 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials were not identified.

EEC recommendations

- for EP 8D07109 Innovative technologies and new inorganic materials: none.
- for EP 6B07106 Mechanical Engineering: none.

Conclusions of the EEC according to the criteria:

- for EP 8D07109 Innovative technologies and new inorganic materials:
According to the standard "Student-centered learning, teaching and assessment" 10 criteria are disclosed: 10 have a satisfactory position.
- for EP 6B07106 Mechanical Engineering:
According to the standard "Student-centered learning, teaching and assessment" 10 criteria are disclosed: 10 have a satisfactory position.

6.6. Standard "Students"

• EO should demonstrate the existence of a policy for the formation of the students' contingent in EP context from admission to graduation and ensure the transparency of its procedures. The procedures governing the students' life cycle (from admission to completion) should be defined, approved, published

- EP management should determine the procedure for the formation of the students' contingent based on:
 - minimum requirements for applicants
 - maximum group size when conducting seminars, practical, laboratory and studio classes
 - forecasting the number of government grants
 - analysis of available material and technical, information resources, human resources
 - analysis of potential social conditions for students, including providing places in the hostel
 - EP management is obliged to demonstrate readiness to conduct special adaptation and support programmes for newly entered and foreign students
- EO should demonstrate that its actions are consistent with the Lisbon Recognition Convention
- EO should cooperate with other educational institutions 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
- EP management should demonstrate the existence of a mechanism for the recognition of the students' results of academic mobility, as well as the results of additional, formal and non-formal education
- EO should provide an opportunity for external and internal mobility of EP students, as well as a willingness to assist them in obtaining external grants for training.
- EP management should demonstrate its readiness to provide students with places of practice, to promote the graduates' employment, to maintain communication with them

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

- *An important factor is the availability of mechanisms for monitoring the employment and professional activity of EP graduates*

Evidence

The contingent formation policy of EP 8D07109 Innovative Technologies and New Inorganic Materials and 6B07106 Mechanical Engineering consists in admitting, on the basis of a state order (grant) and on a fee basis, persons who have consciously chosen their area of training and scored the required number of points in comprehensive testing. Information about the rules and conditions of admission, a list of required documents, a list of programs, entrance exam programs, exam schedules, regulations, announcements, etc. posted in advance on the official website of the university <https://official.satbayev.university/ru/docs>, information posters. Also, information on admission can be obtained from consultants working in the selection committee and from those responsible for career guidance during scheduled events. The policy of forming a contingent of students is a set of measures that ensure the image of the University as a whole. Determining the professional orientation and qualities of applicants is a key aspect of the contingent formation policy based on the Admission Rules. During documents accepting, all individual achievements of applicants, professional experience are also taken into account. For the comfort of applicants, an admission rules have been pointed at the Admission Guide. Online registration is available on kb.satbayev.university. Social assistance and support for students and employees is one of the highest priority areas of social work carried out at the University, which provides a solution to social problems in order to form optimal conditions for learning and development of students. At the departments, attention is paid to working with gifted students, their interests, wishes, ideas, projects are supported. The university has the following support services within the Department of Youth and Sports: –Medical Center; –Sector of social work with students (including the provision of transport cards "Onay"); –Youth Affairs Committee; –House of young scientists. –Sport Club. Wi-Fi operates around the clock on the territory of the University and in the dormitories, which provides access to information resources also during non-school hours. In order to effectively organize the educational process in the EP, an information-educational, educational-technological and research environment has been created that contributes to the formation of key competencies of specialists in this specialty, takes into account the individual needs and capabilities of students.

The university conducts systematic work on a qualitative and quantitative analysis of the main indicators of the student population (in the materials of the Academic Council, administration, educational and methodological council), on the basis of which adequate decisions are made to adjust career guidance work, open new educational programs). According to the documented procedure DP KazNRTU 702. The formation of the contingent of students establishes the requirements for the contingent of students at the University, the procedure for their admission, registration, movement in the learning and graduation process. The requirements of this procedure apply to the processes of forming a contingent of students of the 1st year of study, transfer, expulsion and granting academic leave, restoration. KazNRTU accepts applicants with general secondary, technical and vocational, post-secondary, higher education. Admission of KazNRTU applicants is carried out by placing an educational grant of higher education from the republican or the local budget, as well as for tuition fee covered by the student's own funds and other sources. The university website has open information for admission to all three levels of education.

The minimum requirements for applicants entering doctoral program are at least 75 points, for applicants entering the direction of preparation 6B071 Engineering - at least 65 points.

To enroll in the university, you must register on the website kb.satbayev.university, and after confirming the registration, submit the original documents to the admissions office. For admission to the university, applicants submit to the University Admissions Committee or through the web portal of "electronic government" www.egov.kz (hereinafter referred to as the portal) a package

of documents provided for in paragraph 8 of the Public Service Standard "Admission of documents and enrollment in higher educational institutions for training on educational programs of higher education", according to the required list. In the case of providing a complete package of documents, notifications are sent to the Admissions Committee of the university about the acceptance of documents for admission to the OVPO. After receiving the notification, the applicant submits the original documents to the University Admissions Committee within the period from 10 to 25 August of the calendar year. After receiving the documents, an order is issued to enroll applicants to KazNRTU students (doctoral students). Foreign citizens and stateless persons are admitted to the university in the manner prescribed by the legislation of the Republic of Kazakhstan, as well as international treaties ratified by the Republic of Kazakhstan. The admission of foreign citizens according to the allocated quota on the basis of the state educational order to international higher educational institutions established by interstate agreements of two or more countries is carried out independently by 78 universities. Admission of foreign citizens to study in a foreign language on a fee basis is carried out based on the results of comprehensive testing conducted by higher educational institutions in the language of instruction.

To ensure objective recognition of higher education qualifications, including the recognition of non-formal education, the university ensures compliance with the Lisbon Recognition Convention, cooperates with the Bologna Process and Academic Mobility Center of the Ministry of Education and Science of the Republic of Kazakhstan, which is the executive body for the recognition and nostrification procedure in the Republic of Kazakhstan. In accordance with the clauses of the Lisbon Convention, the University is working to recognize the courses and credits mastered by students as part of academic mobility. The organization of the program of external academic mobility and international exchange programs for students abroad on additional education programs, including retraining and advanced training, scientific internships, participation in seminars, master classes, trainings and other training events, always takes place strictly in accordance with the approved DP KazNRTU 718 Academic mobility in which the rules, algorithm and instructions for participation are written. The mechanism for recognizing learning outcomes mastered during academic mobility is reflected in the approved Rules for the credit technology of education at K.I. Satbayev KazNRTU (in the appendix), according to which the transfer is regulated and approved by the director of the registrar's office, director and vice-rector for academic affairs.

At the moment, SU has active agreements that include academic mobility of students with the following foreign universities: Ufa State Petroleum Technological University, Ural State Agrarian University, National Research Technological University "MISiS", Moscow State Technical University named after N.E. Bauman, Tomsk Polytechnic University, St. Petersburg State Polytechnic University, Russian State University of Oil and Gas. I.M. Gubkina, AGH University of Science and Technology, Warsaw University of Technology, Silesian University of Technology, Lublin University of Technology, Anhalt University of Applied Sciences, Suleiman Demirel University, Sapienza University in Rome, Adam Mickiewicz University, Czestochowa University of Technology and other advanced universities in Europe, Asia and the USA (Appendix 2)

International educational cooperation has various forms. The University successfully carries out international cooperation at the regional and global levels with universities, research and educational centers, international organizations, foundations, transnational and other companies, such as the USA, Germany, Sweden, Russia, China on the basis of signed agreements, treaties and contracts. The Department of International Cooperation, under the leadership of the Vice-Rector for Academic Affairs of the University, coordinates the process of international activities. During the reporting period, the international activities of Satbayev University were aimed at implementing the strategy of internationalization of higher education using distance learning technologies in modern realities. To date, Satbayev University has 163 agreements and memorandums of cooperation with foreign universities, international organizations, companies,

centers, academies of sciences from 20 countries of the world. During the reporting period, 49 cooperation agreements were concluded.

The implementation of academic mobility of KazNRTU continues its progressive development within the framework of the priority tasks of international cooperation for the further integration of the university into the world educational space. Under the academic mobility of students, faculty and administrative staff, one should understand their movement for a certain academic period (including the passage of educational and industrial practice), as a rule, for a semester or academic year to another higher educational institution (within the country or abroad) for training and research, with mandatory transfer in the prescribed manner of mastered educational programs in the form of loans in their university. The duration of training or practice, as well as the transfer of completed disciplines, distinguish academic mobility from traditional foreign internships. The university implements both external and internal academic mobility, each of which is divided into incoming and outgoing academic mobility. Signs of the internationalization of higher education are the mass mobility of students and teachers, knowledge of foreign languages. For the 2021 academic year, more than 30 students completed the Academic Mobility Program in Poland: Adam Mickiewicz University, Silesian University of Technology, Czestochowa University of Technology. The program is financed within the framework of the Republican budget. Erasmus + ICM is a new program of the European Union for the period from 2021 to 2027, aimed at supporting projects, academic mobility in the field of education is also part of the implementation of international exchange and internships for both students and teachers.

At the Department of KhPiPE, relations have been established with universities in Bulgaria (University of Chemical Technology and Metallurgy), Germany (Technical University Chemnitz), Bulgaria (Sofia State University), Malaysia (Universiti Sains Malaysia), Turkey (University of Dicle), USA (Penstate University), France (University of Nancy), Russia (Lomonosov Moscow State University of Fine Chemical Technologies). The purpose of the international activity process is to optimize the organization and increase the effectiveness of international cooperation in the field of education and research of the University.

Students of the Department of chemical processes and industrial ecology undergo industrial practice at the leading enterprises of the chemical industry of the Republic of Kazakhstan: LLP "Kazphosphate", "Kazazot", "Kazferrosta", "Kazakhmys", "Kazatomprom"; Research Institute: JSC "A.B. Bekturov Institute of Chemical Sciences", JSC "Institute of Fuel, D.V. Sokolsky Catalysis and Electrochemistry"; enterprises of the Near Abroad: JSC "Orenburg Minerals" (Russia).

Currently, there are 398 agreements with enterprises - practice bases, including 47 agreements concluded in the 2020-2021 academic year. Also during this period, 669 individual contracts were concluded with enterprises for students to undergo internships. Announcements of vacancies and internships from companies are constantly published in social networks and the Portal of the University (number of announcements - 51 pcs.). From April 1 to August 1, 2019, a 3rd year undergraduate student Nicolas Declé from Pays de l'Adour University Institute of Technology, department of thermal power engineering, France, had an internship at the ME&M department. In terms of the development of the EP "Mechanical Engineering", the department plans to conclude a bilateral agreement with Pays de l'Adour University on the exchange of students within the framework of academic mobility. Every year, in order to increase efficiency and consistency in solving employment problems, a job fair is held within the walls of the University, where graduates meet directly with employers. Job fairs are attended by companies from various fields of activity. An analysis of all proposals helps to form an idea of the situation on the labor market and choose the best direction in it. As experience shows, many companies offer vacancies not only for novice job seekers who do not have work experience, but also a number of vacancies for qualified specialists.

Students who complete the study program are awarded an appropriate degree and issued a state-recognized diploma with an application (transcript), as well as a European Diploma Supplement upon request. Documents include information on the achieved learning outcomes,

context, content, status of education received, evidence of its completion. But unfortunately, within the framework of the EP "8D06104 - Cybernetics and Artificial Intelligence" there are no cases of participation of doctoral students in academic mobility programs and EEC, it was not possible to clarify the situation regarding how the analysis of material, technical, information resources and human resources is carried out at the Department of IM&M. Also, the issue of assessing the satisfaction of doctoral students with places and organization of practice remained open.

In the 2019-2020 academic year, the number of students in the EP "8D06104 - Cybernetics and Artificial Intelligence" was 3 students, in 2020-2021 - 0 students, in 2021-2022 - 2 students, table 1.

Analytical part

The analysis of the university website showed that the information posted in it is quite informative. To inform the public, the site has sections "University", "Admission", "For the student", etc.

The "University" section provides general information about the university administration, fundamental documents, the university's personnel policy, quality policy, international partners and material and technical base. Posted Strategy and Program of University Development.

The "Admission" section provides information on the documents required for admission to university for all levels of education, a detailed description of specialties, the procedure for obtaining grants, and available benefits. There is also feedback information. The sections "For the student" contain all the information necessary for students and graduates of the university. The Satbayev University Alumni Data section contains a database of SU graduates for employers to simplify and speed up the recruitment process for technical specialties.

At the university there is a public association "Association of Satbayev University Alumni".

The Commission notes that, despite the existence of the Satbayev University Alumni Association public association at the university, it was not possible to find out whether it is active enough, since there were no interviews with graduates and it was not possible to find out about membership in this organization.

Experts in the course of interviews found that students are not involved in research work.

EEC of IAAR, on the basis of interviewing and questioning students, familiarization with the educational infrastructure of the university and various documents, notes the following, students find it difficult to answer the question regarding the future prospects for their employment after graduation.

Strengths/best practice

- according to EP 8D07109 Innovative technologies and new inorganic materials:

The management of the EP demonstrates its readiness to provide students with places of practice, to promote the employment of graduates, and to maintain contact with them.

- according to EP 6B07106 Mechanical Engineering were not identified.

EEC recommendations

- ***for EP 8D07109 Innovative technologies and new inorganic materials:*** none.

- ***for EP 6B07106 Mechanical Engineering:*** none.

Conclusions of the EEC according to the criteria:

- ***for EP 8D07109 Innovative technologies and new inorganic materials:***

According to the "Students" standard, 12 positions are revealed: 11 have a satisfactory position and 1 position has a strong side.

- ***for EP 6B07106 Mechanical Engineering:***

According to the “Students” standard, 12 positions: all 12 have a satisfactory position.

6.7. Standard "Teaching Staff"

- *EO should have an objective and transparent personnel policy, including in EP context, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff*
- *EO should demonstrate the compliance of the TS staff potential with EO development strategy and EP specifics*
- *EP management should demonstrate awareness of responsibility for their employees and providing them with favorable working conditions*
- *EP management should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning*
- *EO should determine the contribution of TS of the EP to the implementation of EO development strategy, and other strategic documents*
- *EO should provide opportunities for career growth and professional development of TS of the EP*
- *EP management is obliged to demonstrate readiness to involve practitioners of the relevant industries in teaching.*
- *EO should demonstrate motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activity and education, the use of innovative teaching methods*
- *An important factor is the readiness to develop academic mobility within EP framework, to attract the best foreign and national teachers*

Evidence

The personnel policy of K.I. Satbayev KazNRTU corresponds to the mission and goals of the university and is an integral part of the university strategic policy. The formation of the teaching staff is carried by an analysis of the needs of educational programs, according to which training is conducted at the university. The qualifications of teachers, their quantitative composition correspond to the areas of training and meet the licensing requirements. Personnel policy of the University (posted on the official website of SU). Decisions of the management on the admission, transfer, promotion of the teaching staff are made on the basis of the Rules for the competitive replacement of vacant positions of the teaching staff of NJSC “K.I. Satbayev KazNRTU” and the Rules for the certification of the teaching staff of K.I. Satbayev KazNRTU. The University staff is completed in accordance with the legislation of the Republic of Kazakhstan and (Rules for attestation and competitive filling of teaching staff positions of NJSC K.I. Satbayev KazNRTU). Competitive selection of candidates to vacant positions is carried out in accordance with the qualification characteristics of positions of scientific and pedagogical workers, as well as by placing announcements in republican newspapers and posted at the website of the University.

The teaching staff is the main resource for the implementation of the University mission. The qualification requirements of the University define the basic requirements for teaching staff. The University has a competitive commission to consider candidates for filling vacant positions of the teaching staff. Recruitment is carried out by an analysis of the needs of the educational program, based on the results of which a competition is announced for filling vacant positions.

During the audit, the commission got acquainted with the qualitative and quantitative composition of the teaching staff of the EP, the principles of teaching staff management: planning the teaching staff load, monitoring the quality of teaching, monitoring the implementation of the individual teaching plan, methods for assessing the satisfaction of the teaching staff and students, the policy of forming the teaching staff of the teaching staff.

In accordance with the main provisions of the Academic Policy of the University (section 3), teachers, as well as doctoral students, are participants and moderators in the formation of the university academic policy.

The University has a unified electronic database that includes data on teaching staff, including their personal data, as well as information about their education background,

qualifications, academic degrees and titles, publications, certificates and patents, individual plans of teachers, as well as working curricula, educational and methodological complexes of specialties, syllabuses of disciplines.

Personnel policy of the University is posted on the official website of SU. Decisions of the management on the admission, transfer, promotion of the staff are made on the basis of the Rules for the competitive replacement of vacant positions of the teaching staff of NJSC "K.I. Satbayev KazNRTU" and the Rules for the certification of the teaching staff of K.I. Satbayev KazNRTU.

The desire of employees to improve their skills is supported and stimulated morally and financially. The training is planned and conducted with the aim of preparing the staff for solving the problems facing the University and improving the professional level of the staff. The University has a Collective Agreement for the next 2 years.

The staff of the University is completed in accordance with the legislation of the Republic of Kazakhstan and (Rules for attestation and competitive filling of teaching staff positions of NJSC K.I. Satbayev KazNRTU). Competitive selection of candidates for filling vacant positions is carried out in accordance with the qualification characteristics of positions of scientific and pedagogical workers, as well placement of advertisements in national newspapers and University official page.

On University official page you can find a list of institutes, departments and the composition of the teaching staff of each department, get information about the teaching staff of the department. However, on the website of the ME&M department (<https://official.satbayev.university/ru/industrial-engineering/kafedra-inzhenernaya-mekhanika-i-modelirovanie>) the information is not up-to-date: for example, there is no information about many teaching staff present in the staff of the department, including including Dairbekov Nurlan Slyamkhanovich, Penkin Oleg Mikhailovich, Verbovsky Viktor Valerievich, etc. There is also no information about Prof. Serovaisky Semyon Yakovlevich, who is the supervisor of the third year doctoral student Azimov Anvar Akbarovich. Unfortunately, the EEC failed to obtain comprehensive information on the staffing of the EP "8D06104 - Cybernetics and Artificial Intelligence", since the Department of ME&M also trains in other EPs of the bachelor's and master's levels, moreover, "lying aside" from 8D06 information and communication technologies, including "Mechanical Engineering", which is included in the group of educational programs "B064 - Mechanics and Metalworking" from the direction of training "071 - Engineering". At the request of the EEC, no information was provided on the fulfillment of qualification requirements and competitive selection criteria, including the availability of the relevant basic education of the teaching staff of the department of IM&M, the general experience and experience of scientific and pedagogical work, etc. There is no way to assess the dynamics of degrees, age composition, teaching language, etc.

All selective disciplines are read by Senkebaeva Akbota Aidosovna, an associate professor, information about which is also not available on the website of the department <https://official.satbayev.university/ru/industrial-engineering/kafedra-inzhenernaya-mekhanika-i-modelirovanie>. On the other hand, it should be noted that the head of the EP "8D06104 - Cybernetics and Artificial Intelligence" and at the same time the supervisor of four doctoral students prof. Dairbekov Nurlan Slyamkhanovich does not teach any discipline (even selective) at the indicated EP.

In 2021, as part of creating favorable conditions in the educational buildings and campuses of the university, repair work was carried out. Changes in the assembly hall and conference hall of OB, each office, the corridor was updated with new colors and equipment, a cafe, a co-working zone, a stand-up stage were created.

Teaching staff, including advisors of groups, in accordance with the Regulations on the advisor and the Instructions for the Project "Improving the Competitiveness of Satbayev University Students for 2020-2021" provide assistance to students, undergraduates and doctoral students in organizational work, promote their involvement in scientific, intellectual, creative work, and the development of various forms of self-government.

All strategic KPIs are cascaded first to the level of structural units, and then to the level of employees, so everyone participates in the implementation of the Strategy. Strategic management provides for an annual assessment of personnel, when the degree of KPI fulfillment is determined, wages are increased and decisions are made on promotion and career growth. Analysis of the performance and evaluation of the activities of teachers is carried out at the end of the academic year, as evidenced by the minutes of the meetings of the department, the conclusion of the head of the department in individual plans, and at the end of the academic year about the achievements of teachers, there is a rating system for evaluating the activities of the teaching staff.

The teaching staff of the department of ME&M is regularly engaged in the development of their professional and pedagogical competencies (participation in seminars, trainings, advanced training), which are confirmed by certificates and a positive assessment when questioning students. The department of ME&M holds weekly scientific seminars "Modeling of traffic flows", "Analysis on stratified sets".

Satbayev University, together with the University of Zhilina (Slovakia), as well as a number of other partner universities, is part of a large-scale project funded by the European Union under the Erasmus + CBHE program "Advanced center for PhD students and young researchers in Informatics".

In order to improve the quality of the publication activity of the university staff, to increase the university's fame in the world scientific community, the university developed the "Regulations on the remuneration of employees and students at NJSC K.I. Satbayev KazNRTU for publications in rating (peer-reviewed) scientific journals". KazNRTU implements the mechanisms of moral and material incentives: declaration of gratitude, awarding diplomas, payment of bonuses, presentation for the title of "Honorary Worker of Education of the Republic of Kazakhstan", recommendation for participation in the competition "The Best University Teacher".

For the 2020-2021 academic year, 21 visiting professors from the UK, USA, Russia, Belgium, Germany, India, Czech Republic, Germany, Poland, India, Kyrgyzstan, etc. gave lectures to students of K.I. Satbayev KazNRTU. The whole process of implementing the academic mobility of teaching staff, as well as university staff, is carried out in accordance with the internal Documented Regulation "Academic Mobility" of the DP KazNRTU 718 . The self-evaluating report states that "A number of foreign professors were invited by ME&M to give lectures and conduct scientific consultations for ... PhD-doctoral students ..." (p. 79), however, the EEC was unable to find out the specifics from the management of the EP (name of the invitees, lecture topic, etc. .d.).

According to the results of the survey of the teaching staff, organized by the EEC of IAAR, teachers assess the support of the university and its leadership in the research initiatives of the teaching staff as "very good" - 39.4%; "good" - 50.7%; "relatively bad" - 7%;

- The teaching staff satisfies the content of the educational program as "very good" - 40.8%, "good" - 54.9%; "very bad" - 2.8%;

- the level of feedback from the teaching staff with the management satisfies "very good" - 40.8%, "good" - 50.7%;

- Teachers can use their own innovations in the learning process as "very good" - 53.5%, "good" - 40.8%;

- How is the work on academic mobility set to "very good" - 25.4%, "good" - 57.7%; "Relatively bad" - 14.1%;

- How is the work on improving the qualifications of teaching staff on "very good" - 25.4%, "good" - 52.1%; "Relatively bad" - 19.7%;

- Involvement of teaching staff in the process of making managerial and strategic decisions as "very good" - 28.2%, "good" - 59.2%, "Relatively bad" - 11.3%.

Analytical part

Based on the results of the interviews, the administrative and teaching staff confirmed their satisfaction with the current personnel policy at the university, including the actual holding of a

competition for vacancies. All interview participants are satisfied with the conditions of the working environment organized by the employer. That is, this fact confirms the information about the creation by the university of all the conditions for the development of its values, and these are the student and the teacher, if earlier the rector was at the head in the hierarchical structure, then in the new management model the value is generated by students and teachers, structural divisions and the rector himself are supporting elements of the structure. Directed measures will allow entering the TOP-200 best universities in the world.

National projects of the Republic of Kazakhstan are aimed at ensuring the creation of conditions and opportunities for self-realization and disclosure of the talent of each person and are focused on a "person-centered" approach.

All strategic KPIs are cascaded first to the level of structural units, and then to the level of employees, so everyone participates in the implementation of the Strategy. Strategic management provides for an annual assessment of personnel, when the degree of KPI fulfillment is determined, wage increases take place, and decisions are made on promotion and career growth.

But at the same time, there is not enough information about teachers on the university page (scientific areas, taught disciplines, textbooks prepared by teaching staff, etc.), there is no external mobility of teaching staff, it is required to constantly improve the professional development of personnel in areas of specialization in leading scientific centers of Kazakhstan and abroad.

The EEC notes that, in general, the teaching staff in terms of degrees does not meet the qualification requirements to a large extent. The university website does not provide enough information about teachers (basic education, scientific areas, taught disciplines, etc.), there is no external mobility of teaching staff. On the website of the department of ME&M (<https://official.satbayev.university/ru/industrial-engineering/kafedra-inzhenernaya-mekhanika-i-modelirovanie>) information about the teaching staff is out of date.

The Commission recommended to continue the participation of teaching staff in competitions for the implementation of grant research projects funded by the Ministry of Education and Science of the Republic of Kazakhstan. Considering that the university has concluded cooperation agreements with other universities, there is a good opportunity to conduct joint research, including with foreign partners, as well as participate in international projects.

The Commission notes the weak incentives for the participation of teachers in joint scientific research with foreign partners and international projects.

Members of the EEC noted the weak publication activity of the teaching staff in the cited scientific journals. According to the data provided by the EEC, only one teacher has publications in international scientific journals.

In conducting classes at an accredited EP, there are not enough, or not at all, teachers who are supervisors of doctoral students, which means they must meet the qualification requirements in the context of the EP as much as possible. All elective disciplines are read by Senkebaeva Akbota Aidosovna, an associate professor, information about which is also not available on the website of the department.

A sufficient level of publication activity of teachers in the context of taught disciplines has not been established. Many publications concern mechanics, and not EP "8D06104 - Cybernetics and artificial intelligence". The implementation of the results of scientific research of teaching staff in the educational process has not been established.

The teaching staff of the department is not fully satisfied with the objectivity and transparency of the personnel policy at the university. For example, even the head of the EP prof. Dairbekov N.S. "I'm not sure about the future", because the contract is ending soon, and there is no understanding of the solution of the personnel issue.

Scientific seminars held at the Department of IM&M, namely "Modeling of traffic flows" and "Analysis on stratified sets" are also not directly related to the EP "8D06104 - Cybernetics and Artificial Intelligence".

EEC failed to determine the contribution of the teaching staff of the EP "8D06104 - Cybernetics and Artificial Intelligence" to the implementation of the development strategy of the

university and other strategic documents.

EEC of IAAR, having held meetings, conversations and interviews with vice-rectors, deans, heads of departments, heads and employees of structural units, students, faculty, as well as conducting a survey of students and faculty, detailed acquaintance of experts with the educational infrastructure of the university, material and technical and information and methodological resources, as well as the necessary documents, notes the following:

Strengths/best practice

- according to EP 8D07109 Innovative technologies and new inorganic materials:

The compliance of the personnel potential of the teaching staff with the development strategy of the university and the specifics of the EP has been demonstrated.

- according to EP 6B07106 Mechanical Engineering"

The responsibility of the management of the EP for its employees and ensuring favorable working conditions for them. Opportunity for career growth and professional development of teaching staff of the EP.

EEC recommendations

- ***for EP 8D07109 Innovative technologies and new inorganic materials:***

Involve industrial employers to teaching process.

- ***for EP 6B07106 Mechanical Engineering:***

Keep track of the relevance of the information provided on the university official page and update information on the teaching staff.

Conclusions of the EEC according to the criteria:

- ***for EP 8D07109 Innovative technologies and new inorganic materials:***

According to the standard "Teaching staff" 9 positions were revealed: 8 are satisfactory positions and 1 is a strong position.

- ***for EP 6B07106 Mechanical Engineering:***

According to the standard "Teaching Staff", 9 positions were revealed: 1 position has a strong position, 7 satisfactory positions and 1 position suggesting improvement.

6.8. Standard "Educational resources and student support systems"

• *EO should ensure a sufficient number of training resources and student support services that meet EP objectives.*

• *EO should demonstrate the sufficiency of material and technical resources and infrastructure, considering the needs of students' various groups in EP context of (adults, working, foreign students, as well as students with disabilities).*

• *EP management is obliged to demonstrate the existence of procedures for supporting various groups of students, including informing and consulting. EP management should demonstrate the compliance of information resources with EP specifics, including:*

• *technological support for students and TS in accordance with educational programmes (for example, online training, modeling, databases, data analysis programmes)*

• *library resources, including the fund of educational, methodological and scientific literature on compulsory education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases*

• *examination of research results, graduation works, dissertations for plagiarism*

• *access to educational Internet resources*

• *functioning of WI-FI on the territory of the educational organisation*

• *EO should strive to ensure that the educational equipment and software intended for use in the development of educational programmes are similar to those used in the relevant industries*

Evidence

The policy of KazNRTU is aimed at academic support for students to achieve their personal and professional competencies, and get an academic degree. The University has good material, technical, informational and library resources used to organize the process of teaching and educating students and realizing the mission, goals and objectives of KazNRTU. Students have the opportunity and access to use the socio-cultural and sports facilities of the university. The Committee for Youth Affairs is the highest body of student and youth self-government of the university in the field of implementing the state youth policy. The student trade union committee "Zhas kanat" organizes such events as "The best hostel", team building for students from socially vulnerable segments of the population, sports competitions among students, etc.

In the sports club of the university, which is headed by the master of sports in rhythmic gymnastics V. Laktionova, there are 10 sections in 9 sports.

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. The total volume of the electronic catalog is 174773 units, including: 109916 units of educational and scientific literature (1,263,553 copies); 2571 e-books; 57,550 articles and 4,736 units of other types of literature. The electronic catalog contains bibliographic records of new acquisitions of books and periodicals, articles and monographs of teaching staff, dissertations, abstracts and electronic resources and is constantly updated online. Through a single search window of the EBSCO Discovery Service system, access to all subscription electronic resources is provided. In order to increase the availability of resources, the ELS "IPRboks" was integrated into the portal "Politech Online". The distance learning format is also supported through the use of ELS mobile applications by students.

The total fund of the library is 1717115 copies, including 364368 copies in the state language. At the service of readers 508 150 copies. textbooks on general education disciplines, including in the state language - 158,552 copies. The fund contains 1,190,114 copies. textbooks on basic and specialized disciplines, in the Kazakh language - 372,432 copies. The library has 687461 copies. scientific literature, in the Kazakh language - 46064 copies.

Together with the Department of Information Technology of the University, it was possible to arrange 10 specially equipped booths (GUK, 1st floor) for high-quality broadcasting of on-line classes. The university has a developed information technology infrastructure, consisting of: a high-performance computing cluster with a capacity of 80 Tfl, designed to solve scientific problems, 17 server equipment based on Windows and UNIX systems that support the stable operation of the university's business processes, a powerful computer park, having over 4 thousand workstations and modern technical training aids. The university has 105 computer labs, 136 multimedia and 6 language laboratories, 10 mobile multimedia kits. The university has 37 computer labs with 491 computers.

To conduct exams and assess knowledge, teachers have the opportunity to use the Emtihunter service developed by employees of the Department of Information Technology <https://emtihunter.satbayev.university>.

Students with disabilities (hearing and visually disabled students) receive 75% scholarship allowances, as well as students on a fee basis are provided by tuition discounts of 10-20%, in accordance with the Regulations on the provision of discounts for educational services and financial incentives for students of NJSC KazNRTU. One of the important forms of providing social support is the provision of places in dormitories for all students of this category and the provision of benefits for living in dormitories. Students and undergraduates from among orphans live free of charge in hostels.

The university has an effective information and feedback system, which includes: the university website <https://official.satbayev.university/ru>, the applicant's website, the electronic library <https://satbayev.university/ru/library>, the student forum, the verification website documents for plagiarism <http://sandyk.kazntu.kz/index.php>, etc.

The University practices such types of RET as network and case technology. All RET students have their own virtual "personal accounts", at any time they have access to lectures and other teaching aids of the teacher, they can complete and send his assignments, receive work, individual curricula, etc.

The university, including the Institute of Energy and Mechanical Engineering, which includes the Department of IMiM, has classrooms equipped with multimedia equipment that are used in lectures.

However, the EEC failed to establish sufficient availability of material and technical resources in the context of the accredited EP "8D06104 - Cybernetics and Artificial Intelligence", as well as a mechanism for planning the logistics of the EP and monitoring the implementation of the plan. The management of the EP during the interview did not give an answer to the question of how the need for the purchase of educational equipment and software will be determined at the OP.

Analytical part

The EEC confirms the completeness of the material and technical base, including the availability of an effective system of information support for the scientific and educational process, which is carried out on the basis of applications from the departments.

Information support of educational programs is provided through printed publications, full-text documents, the University's Digital Library and subscription electronic resources.

The formation of teaching staff is carried out on the basis of an analysis of the needs of educational programs, according to which personnel are trained at the University in strict accordance with the qualification requirements for national universities of the Republic of Kazakhstan. The qualifications of teachers, their qualitative and quantitative composition correspond to the areas of training of bachelors, masters, PhD doctors and their contingent. Preparation for doctoral programs is carried out by teachers with academic degrees and titles.

The University pays attention to the information security of the University staff, students and teaching staff, guarantees the antivirus from Kaspersky Lab, ensuring the protection of personal and corporate data on the computers and servers of the University from virus threats.

The Department of Information Technology provides the necessary computing resources (computing power, information storage, ensuring the continuity of operation, ensuring the safety of data), infrastructure in the form of communication channels and access to resources from the internal network of the university and via the Internet, necessary for the functioning of all systems of the university in a continuous mode.

It is worth noting that the existence of an effective system of information and advisory work on programs and opportunities contributes to the active participation of students of the EP. An important condition for ensuring student satisfaction with the work of support services is the existence and functioning of a mechanism for continuous evaluation of student support services, using the questionnaire method, as well as through the SU solutions mobile application.

The EP uses an automated information system for managing the educational process - sso.satbayev.university, the contingent of students is formed with the help of "satbayev.university" according to the EP, by forms of study, by groups and is monthly reflected in the movement of the student contingent.

To conduct an examination of the results of research, graduation papers and dissertations, a mandatory check for plagiarism is used.

As a result of a visual inspection by members of the EEC of the objects of the material base, it should be noted that the university has a sufficient number of educational and material assets to ensure the educational process of the accredited EPs. The EEC believes that work should continue to improve technical opportunities for people with disabilities.

There are 11 educational laboratories, 3 research laboratories, 2 lecture rooms at the Department of chemical processes and industrial ecology. All laboratories are equipped. There are passports of laboratories.

The Commission did not find confirmation of planning to provide the EP "8D06104 - Cybernetics and Artificial Intelligence" with equipment and software "similar to those used in the relevant sectors of the economy."

As a result of the analysis of the activities accredited by the EP according to this standard, it can be concluded that the assessment of the completeness and availability of the material, technical and information resources specified by the EP has been carried out. There is a dynamic of resources and learning environment, library support of the educational process.

Strengths/best practice

- according to EP 8D07109 Innovative technologies and new inorganic materials, 6B07106 Mechanical Engineering were not identified.

EEC recommendations

- for EP 6B07106 Mechanical Engineering, 8D07109 Innovative technologies and new inorganic materials
none.

Conclusions of the EEC according to the criteria:

- for EP 8D07109 Innovative technologies and new inorganic materials:
According to the standard "Educational resources and student support systems", 9 positions are disclosed: 9 have satisfactory positions.

- for EP 6B07106 Mechanical Engineering:
According to the standard "Educational resources and student support systems", 9 positions are disclosed: 9 have satisfactory positions.

6.9. Standard "Public Information"

• *EO should publish reliable, objective, relevant information about the educational programme and its specifics, which should include:*

- *expected learning outcomes of EP implemented*
- *qualifications and (or) qualifications that will be awarded upon EP completion*
- *approaches of teaching, learning, as well as the system (procedures, methods and forms) of assessment*

- *information about passing scores and learning opportunities provided to students*
- *information about the possibilities of employment of graduates*
- *EP management should provide for various ways of disseminating information, including mass media, information networks to inform the general public and concerned parties*
- *Public awareness should include support and explanation of the country's national development programmes and the system of higher and postgraduate education*
- *EO should demonstrate the reflection on the web resource of information characterizing it in general and in EP context.*

TS

- *An important factor is the availability of adequate and objective information about EP*

- *An important factor is informing the public about cooperation and interaction with partners within EP framework*

Evidence

Satisfying the interests of society at various levels is one of the main tasks of K.I. Satbayev KazNRTU. The policy of the university on informing the public provides for openness in relation to society, the establishment of public relations with authorities at various levels, collectives of educational institutions, industrial enterprises, public organizations; conducting monitoring in the internal and external environment to study the attitude of various groups of the population to the

policy pursued by the university, the quality of training.

As effective tools for informing the public, to create an image of an open educational institution, various media resources are used, press conferences, briefings are held, business contacts with the editorial offices of newspapers, magazines, radio and television are activated.

The university official page contains complete information about all teachers working at the university. Each teacher has a profile containing a photo of the teacher, information about his scientific achievements and interests, syllabuses. For example: <https://official.satbayev.university/ru/teachers/kubekova-sholpan-nakishbekovna>. This information is available to the public and students, who can use it to build their individual learning path. Links to descriptions of educational programs for this institute are also available on these pages. A survey of the teaching staff of the university and students is being conducted, the purpose of which is to identify the degree of satisfaction with the quality of educational services provided and other activities of the university, as well as monitoring the degree of their satisfaction. In addition, an electronic survey "Teacher through the eyes of students" is conducted.

Satbayev University has a complete system of information support for students and teachers based on the site for all educational programs. In addition to the satbayev.university website, this system includes the Polytech Online Distance Learning Portal, integrated with the university's educational portal.

The University is consistently implementing a public information strategy. Information on the university activities is presented on the pages "About the University" and "Basic Provisions". The university operates a public information system on the Internet, consisting of publications on the university website and social networks (Facebook, Vkontakte, Youtube), there is a university program aimed at working with traditional and electronic media. On the site on the page "Online education" provides detailed information about the capabilities of the online education system of the university and provides additional links to the Polytech-online platform. The PolytechOnline platform contains not only a database of 1,524 video courses and 18,810 video files, but also has an interactive interface and full-cycle functionality for students, teachers, administrators, as well as integration with all external University systems. The "News" section contains up-to-date information about the activities of the university, including in the context of educational programs and student education.

Unfortunately, despite the contrary statements in the self-evaluation report, the pages of the ME&M department contain far incomplete and often irrelevant necessary information on the educational program, information on teaching staff and employers. So, there is no information about many teaching staff present in the staff of the department, including Dairbekov Nurlan Slyamkhanovich, Penkin Oleg Mikhailovich, Verbovsky Viktor Valerievich, etc.

Analytical part

The university has created effective information mechanisms: the academic councils of the university, institutes and administration have become a key element in making the main methodological, program and structural decisions at KazNRTU. The public relations center develops, plans and implements activities to inform about the University activities. It monitors the media, analyzes the dynamics of public opinion on key issues of the University, promptly informs the University management about the results. Interacts with journalists for the most complete and objective media coverage of the activities of the University and its structural divisions. Prepares and publishes articles, interviews, photo and video materials, speeches by university employees, as well as press releases about ongoing events in the media. Feedback on the site is implemented in the form of the rector's blog, the site also has the function of registering applicants online, and there are also online consultations for all interested parties. There is also a section where information about graduates is provided for employers. This section is designed to search for employees, trainees and interns, and post job ads.

The EEC notes that in the field of information dissemination policy, K.I. Satbayev KazNRTU demonstrates a 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.

Assessment of satisfaction with information about the activities of the university, the specifics and progress of the implementation of the EP is carried out annually by questioning and interviewing interested parties.

Information about the Department of Mechanical Engineering and Modeling, about the main directions of its activities are available at the link <https://official.satbayev.university/ru/industrial-engineering/kafedra-inzhenernaya-mekhanika-i-modelirovanie>, however, the EEC notes that information on teaching staff is presented in fragments. There is no data on the courses taught by the teaching staff, the specialty of an academic degree, scientific interests, etc. There is no information about many teaching staff present in the staff of the department and participating in the implementation of the accredited EP.

Strengths/best practice

- according to EP 8D07109 Innovative technologies and new inorganic materials, 6B07106 Mechanical Engineering were not identified.

EEC recommendations

- for EP 8D07109 Innovative technologies and new inorganic materials:

In syllabuses indicate the approaches of teaching, learning, as well as the system (procedures, methods and forms) of assessment.

- for EP 6B07106 Mechanical Engineering: none.

Conclusions of the EEC according to the criteria:

According to the "Informing the Public" standard, 10 positions were disclosed: 6 have satisfactory positions and 4 positions suggest improvement.

- for EP "8D07109 Innovative technologies and new inorganic materials":

According to the "Informing the Public" standard, 9 positions were disclosed: 8 have satisfactory positions and 1 suggests improvement.

- for EP "6B07106 - Mechanical Engineering":

According to the "Informing the Public" standard, 9 positions were disclosed: 9 have satisfactory positions.

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

According to the standard "Management of the educational programme"

for EP 8D07109 Innovative technologies and new inorganic materials:

- within the framework of this Standard, no strengths have been identified.

for EP 6B07106 Mechanical Engineering:

The presence 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.

According to the Information Management and Reporting Standard

for EP 8D07109 Innovative technologies and new inorganic materials":

- within the framework of this Standard, no strengths have been identified.

for EP 6B07106 Mechanical Engineering:

Availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information to measure the degree of satisfaction with the needs of students, teaching staff and staff within the EP.

According to the Standard "Development and approval of the educational programme"

for EP 8D07109 Innovative technologies and new inorganic materials":

- development and analysis of the EP agreed and reviewed by employers and students.

for EP 6B07106 Mechanical Engineering:

The EP and the content of the disciplines are developed in accordance with the curricula of the world's leading universities, which ensures compliance with the established goals, including the expected learning outcomes.

Making adjustments to the EP on the recommendations of employers confirms the participation of students, teaching staff and other interested parties in the development of the EP, ensuring its quality. Conducting external examinations of the content of the EP (reviews of employers and reviews of leading companies in the country and far abroad) and the planned results of its implementation.

According to the standard "On-Going Monitoring and Periodic Review of Educational Programme"

for EP 8D07109 Innovative technologies and new inorganic materials:

- within the framework of this Standard, no strengths have been identified.

for EP 6B07106 Mechanical Engineering:

Monitoring curricula in the specialty of the leading universities in the world and the formation of EP based on this analysis confirms a systematic approach to monitoring and periodically assessing the quality of EP.

According to the standard "Student-Centered Learning, Teaching and Performance Evaluation":

for EP 8D07109 Innovative technologies and new inorganic materials:

- within the framework of this Standard, no strengths have been identified.

for EP 6B07106 Mechanical Engineering:

- within the framework of this Standard, no strengths have been identified.

According to the Standard "Students":

for EP 8D07109 Innovative technologies and new inorganic materials:

- the management of the EP demonstrates its readiness to provide students with places of practice, to promote the employment of graduates, to maintain contact with them.

for EP 6B07106 Mechanical Engineering:

- within the framework of this Standard, no strengths have been identified.

According to the Standard Teaching Staff:

for EP 8D07109 Innovative technologies and new inorganic materials:

- within the framework of this Standard, no strengths have been identified.

for EP 6B07106 Mechanical Engineering:

The responsibility of the management of the EP for its employees and ensuring favorable working conditions for them. Opportunity for career growth and professional development of teaching staff of the EP.

According to the Standard "Educational resources and student support systems":

for EP 8D07109 Innovative technologies and new inorganic materials:

- within the framework of this Standard, no strengths have been identified.

for EP 6B07106 Mechanical Engineering:

- within the framework of this Standard, no strengths have been identified.

According to the Standard "Public Information":

for EP 8D07109 Innovative technologies and new inorganic materials:

- within the framework of this Standard, no strengths have been identified.

for EP 6B07106 Mechanical Engineering:

- within the framework of this Standard, no strengths have been identified.

(VIII) OVERVIEW RECOMMENDATIONS FOR IMPROVING QUALITY FOR EACH STANDARD

Standard "Management of the educational programme"

for EP "8D07109 Innovative technologies and new inorganic materials":

Develop an action plan to reduce the risks associated with the design and implementation of the EP, the formation of the contingent, compliance with mandatory requirements in terms of personnel, logistics, educational and methodological support.

for EP 6B07106 Mechanical Engineering:

Develop an action plan on possible risks, with a detailed SWOT analysis, related to the preparation for the EP.

Pay attention to improving the scientific activities of the department and the institute as a whole.

Implement effective implementation of joint/double-degree education and academic mobility.

To confirm the correctness of the evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties, according to the information provided, indicate the date of approval.

Information Management and Reporting Standard

for EP 8D07109 Innovative technologies and new inorganic materials:

Place all types of reports on the implementation of the plan of the department and the institute on the website of the department.

for EP 6B07106 Mechanical Engineering:

It is recommended to pay attention to the availability and openness of the plans and reports of the department on the official website of the department, including the composition and brief information on teaching staff assigned to the department.

Placement in the information base working curricula on the taught discipline.

Standard "Development and approval of the educational programme"

for EP 8D07109 Innovative technologies and new inorganic materials:

- there are no recommendations within this Standard.

for EP 6B07106 Mechanical Engineering:

- there are no recommendations within this Standard.

Standard " On-Going Monitoring and Periodic Review of Educational Programme"

for EP 8D07109 Innovative technologies and new inorganic materials:

- there are no recommendations within this Standard.

for EP 6B07106 Mechanical Engineering:

The head of the department should pay attention to the content of the EP in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline being taught.

Standard "Student-Centered Learning, Teaching and Performance Evaluation"

for EP 8D07109 Innovative technologies and new inorganic materials, 6B07106 Mechanical Engineering

- there are no recommendations within this Standard.

Standard "Students"

for EP 8D07109 Innovative technologies and new inorganic materials:

- there are no recommendations within this Standard.

for EP 6B07106 Mechanical Engineering:

- there are no recommendations within this Standard.

Standard "Teaching Staff"

for EP 8D07109 Innovative technologies and new inorganic materials:

Involve industrial employers to teaching process.

for EP 6B07106 Mechanical Engineering:

Keep track of the relevance of the information provided on the university official page and update information on the teaching staff.

Standard "Educational resources and student support systems"

for EP 8D07109 Innovative technologies and new inorganic materials:

- there are no recommendations within this Standard.

for EP 6B07106 Mechanical Engineering:

- there are no recommendations within this Standard.

Standard "Public Information"

for EP 8D07109 Innovative technologies and new inorganic materials:

In syllabuses indicate the approaches of teaching, learning, as well as the system (procedures, methods and forms) of assessment.

for EP 6B07106 Mechanical Engineering:

- there are no recommendations within this Standard.

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

Missing

(X) RECOMMENDATION TO THE ACCREDITATION BOARD

The external expert commission made a unanimous decision to recommend to the Accreditation Council educational programs 8D07109 Innovative technologies and new inorganic materials, 6B07106 Mechanical Engineering of the Non-profit Joint Stock Company "K.I. Satbayev Kazakh National Research Technical University" to accredit for a period of 5 (five) years.



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

**Conclusion of the External Expert Commission for the Quality Assessment of the
Educational Program 6B07106 Mechanical Engineering
Non-profit joint stock company
"K.I. Satbayev Kazakh National Research Technical University"**

item No.	NN o.	Evaluation criteria	Position of the educational organization			
			Strong	Satisfactory	To be improved	Unsatisfactory
Standard " Management of Educational Programme"						
1	1.	The organisation of higher and (or) postgraduate education should have a published quality assurance policy. The quality assurance policy should reflect the link between research, teaching and learning		+		
2	2.	The organisation of higher and (or) postgraduate education should demonstrate the culture's development of quality assurance, including in EP context		+		
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.	EP management demonstrates readiness to ensure transparency of EP development plan based on the analysis of its functioning, EO actual positioning and the focus of its activities on meeting the needs of the state, employers, students and other concerned parties. The plan should contain the timing of the start of the implementation of the educational programme		+		
5	5.	EP management demonstrates the existence of mechanisms for the formation and regular revision of EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the students needs, employers and society, making decisions aimed at continuous improvement of EP		+		
6	6.	EP management should involve representatives of stakeholder groups, including employers, students and TS in the formation of EP development plan			+	
7	7.	EP management should demonstrate the individuality and uniqueness of EP development plan, its consistency with national priorities and the development strategy of the organisation of higher and (or) postgraduate education		+		

8	8.	The organisation of higher and (or) postgraduate education should demonstrate a clear definition of those responsible for business processes within EP framework, an unambiguous distribution of job duties of personnel, delineation of collegial bodies functions		+		
9	9.	EP management should provide evidence of the transparency of the educational programme management system		+		
10	10.	EP management should demonstrate the existence of EP internal quality assurance system, including its design, management and monitoring, their improvement, decision-making based on facts		+		
11	11.	EP management should carry out risk management, including within EP framework, undergoing initial accreditation, as well as demonstrate a system of measures aimed at reducing the risk degree		+		
12	12.	EP management should ensure the participation of representatives of employers, TS, students and other concerned parties in the collegial management bodies of the educational programme, as well as their representativeness in making decisions on the educational programme management	+			
13	13.	EO should demonstrate innovation management within EP framework, including the analysis and implementation of innovative proposals			+	
14	14.	EP management should demonstrate evidence of readiness for openness and accessibility for students, TS, employers and other concerned parties			+	
15	15.	The management of the EP must be trained in education management programs		+		
Total on standard			1	10	4	0
Standard "Information Management and Reporting"						
16	1.	EO should demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software and that it uses a variety of methods to collect and analyze information in EP context			+	
17	2.	EP management should demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.			+	
18	3.	EP management should demonstrate decision-making based on facts			+	
19	4.	Within EP framework, a system of regular reporting should be provided reflecting all levels of the structure, including an assessment of the performance and efficiency of the unit activities and departments, scientific research			+	
20	5.	EO should establish the frequency, forms and methods of assessing EP management, activities of collegial bodies and structural units, top management, the implementation of scientific projects			+	

21	6.	EO should demonstrate the determination of the order and ensuring the protection of information, including the identification of persons responsible for the accuracy and timeliness of the analysis of information and the data provision.		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and TS in the processes of collecting and analysing information, as well as making decisions based on them	+			
23	8.	EP management should demonstrate the existence of a communication mechanism with students, employees and other concerned parties, as well as mechanisms for resolving conflicts		+		
24	9.	EO should demonstrate the existence of mechanisms for measuring the degree of satisfaction of the TS needs, personnel and students within EP framework		+		
25	10.	EO should provide for the assessment of the performance and efficiency of activities, including in EP context			+	
		<i>The information intended for collection and analysis within EP framework should take into account:</i>				
26	11.	key effectiveness indicators		+		
27	12.	the dynamics of the students contingent in the context of forms and types;		+		
28	13.	academic results, student achievement and expulsion		+		
29	14.	satisfaction of students with the realization of EP and the quality of education at HEI		+		
30	15.	availability of educational resources and support systems for students		+		
31	16.	EO should confirm the realization of procedures for processing personal data of students, employees and TS on the basis of their documentary consent		+		
Total on standard			1	14	1	0
Standard "Development and Approval of the Education Programme"						
32	1.	EO should define and document the procedures for EP development and its approval at the institutional level		+		
33	2.	EP management should ensure that the developed EP meets the established objectives, including the expected learning outcomes		+		
34	3.	EP management should ensure the availability of developed models of EP graduate, describing the learning outcomes and personal qualities	+			
35	4.	EP management should demonstrate the performance of external examinations of EP content and the planned results of its implementation		+		
36	5.	The qualification awarded upon EP completion should be clearly defined and correspond to a certain NQS level	+			
37	6.	EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
38	7.	An important factor is the ability to prepare students for professional certification		+		
49	8.	EP management should provide evidence of the participation of students, TS and other stakeholders in EP development, ensuring their quality		+		

40	9.	EP complexity should be clearly defined in Kazakhstani credits and ECTS		+		
41	10.	EP management should ensure that the content of academic disciplines and planned results are consistent with the level of education (bachelor's, master's, doctoral studies).		+		
42	11.	EP structure should provide for various types of activities to ensure that students achieve the planned learning outcomes.		+		
43	12.	An important factor is the correspondence between EP content and EP learning outcomes, implemented by institutions of higher and (or) postgraduate education in the EHEA		+		
Total on standard			2	10	0	0
Standard "On-Going Monitoring and Periodic Review of Educational Programme"						
44	1.	EO should define mechanisms for monitoring and EP periodic evaluation in order to ensure the achievement of the goal and meet the needs of students and society. The results of these processes should be aimed at EP continuous improvement		+		
		<i>Monitoring and EP periodic evaluation should provide for:</i>		+		
45	2.	the content of the programmes in the light of the latest scientific achievements in a specific discipline to ensure the relevance of the taught discipline			+	
46	3.	changes in the needs of society and the professional environment		+		
47	4.	workload, the level of academic achievement and students' graduation		+		
48	5.	the 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 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.	EO, EP management should define a mechanism for informing all concerned parties about any planned or taken actions in relation to EP		+		
53	10.	All changes made to EP should be published. EP management should develop a mechanism for revising EP content and structure, considering changes in the labor market, employers' requirements and social demands of society		+		
Total on standard			1	8	1	0
Standard "Student-Centered Learning, Teaching and Performance Evaluation"						
54	1.	EP management should ensure respect and attention to different groups of students and their needs providing them with flexible learning trajectory		+		
55	2.	EP management should provide for the use of various forms and methods of teaching and learning		+		
56	3.	An important factor is the availability of own research in the field of teaching methods of EP academic disciplines			+	
57	4.	EP management should demonstrate the existence of feedback mechanisms on the use of various teaching methods and assessment of learning outcomes		+		

58	5.	EP management should demonstrate the existence of mechanisms to support the students' autonomy with simultaneous guidance and assistance from the teacher.		+		
59	6.	EP management should demonstrate the existence of a procedure for responding to student complaints		+		
60	7.	EO should ensure consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including appeal		+		
61	8.	EP should ensure that the procedures for assessing the learning outcomes of EP students are consistent with the planned results and programme objectives. Criteria and methods of assessment within EP framework should be published in advance		+		
62	9.	EO should determine the mechanisms for ensuring the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation	+			
63	10.	Evaluators should be proficient in modern methods of assessing learning outcomes and regularly improve their qualifications in this area		+		
Total on standard			0	10	0	0
Standard "Students"						
64	1.	EO should demonstrate the existence of a policy for the formation of the students' contingent in EP context from admission to graduation and ensure the transparency of its procedures. The procedures governing the students' life cycle (from admission to completion) should be defined, approved, published		+		
		<i>EP management should determine the procedure for the formation of the students' contingent based on:</i>		+		
65	2.	minimum requirements for applicants		+		
66	3.	maximum group size when conducting seminars, practical, laboratory and studio classes		+		
67	4.	forecasting 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, including providing places in the hostel		+		
70	7.	EP management is obliged to demonstrate readiness to conduct special adaptation and support programmes for newly entered and foreign students		+		
71	8.	EO should demonstrate that its actions are consistent with the Lisbon Recognition Convention; EP management should demonstrate the existence of a mechanism for the recognition of the students' results of academic mobility, as well as the results of additional, formal and non-formal education		+		
72	9.	EO should cooperate with other educational institutions 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.	EO should provide an opportunity for external and internal mobility of EP students, as well as a willingness to assist them in obtaining external grants for training.		+		
74	11.	EP management should demonstrate its readiness to provide students with places of practice, to promote the graduates' employment, to maintain communication with them		+		
75	12.	EO should provide for the possibility of providing EP graduates with documents confirming the received qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion		+		
Total on standards			0	12	0	0
Standard "Teaching Staff"						
76	1.	EO should have an objective and transparent personnel policy, including in EP context, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff		+		
77	2.	EO should demonstrate the compliance of the TS staff potential with EO development strategy and EP specifics		+		
78	3.	EP management should demonstrate awareness of responsibility for their employees and providing them with favorable working conditions	+			
79	4.	EP management should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	EO should determine the contribution of TS of the EP to the implementation of EO development strategy, and other strategic documents		+		
81	6.	EO should provide opportunities for career growth and professional development of TS of the EP			+	
82	7.	EP management is obliged to demonstrate readiness to involve practitioners of the relevant industries in teaching.		+		
83	8.	EO should demonstrate motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activity and education, the use of innovative teaching methods		+		
84	9.	An important factor is the readiness to develop academic mobility within EP framework, to attract the best foreign and national teachers		+		
Total on standard			1	7	1	0
Standard "Education Resources and Student Support Systems"						
85	1.	EO should ensure a sufficient number of training resources and student support services that meet EP objectives.		+		
86	2.	EO should demonstrate the sufficiency of material and technical resources and infrastructure, considering the needs of students' various groups in EP context of (adults, working, foreign students, as well as students with disabilities).		+		
87	3	EP management is obliged to demonstrate the existence of procedures for supporting various groups of students, including informing and consulting.		+		

		EP management should demonstrate the compliance of information resources with EP specifics, including:				
88	4.	technological support for students and TS in accordance with educational programmes (for example, online training, modeling, databases, data analysis programmes)		+		
89	5.	library resources, including the fund of educational, methodological and scientific literature on compulsory education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
90	6.	examination of research results, graduation works, dissertations for plagiarism		+		
91	7.	access to educational Internet resources		+		
92	8.	functioning of WI-FI on the territory of the educational organisation		+		
93	9.	EO should strive to ensure that the educational equipment and software intended for use in the development of educational programmes are similar to those used in the relevant industries		+		
Total on standard			0	9	0	0
Standard "Public Information"						
		EO should publish reliable, objective, relevant information about the educational programme and its specifics, which should include:		+		
94	1.	expected learning outcomes of EP implemented		+		
95	2.	qualifications and (or) qualifications that will be awarded upon EP completion		+		
96	3.	approaches of teaching, learning, as well as the system (procedures, methods and forms) of assessment		+		
97	4.	information about passing scores and learning opportunities provided to students		+		
98	5.	information about the possibilities of employment of graduates		+		
99	6.	EP management should provide for various ways of disseminating information, including mass media, information networks to inform the general public and concerned parties		+		
100	7.	Public awareness should include support and explanation of the country's national development programmes and the system of higher and postgraduate education		+		
101	8.	EO should demonstrate the reflection on the web resource of information characterizing it in general and in EP context.		+		
102	9.	An important factor is the availability of adequate and objective information about EP TS		+		
103	10	An important factor is informing the public about cooperation and interaction with partners within EP framework		+		
Total on standard			0	10	0	0
TOTAL			6	88	7	0

6 (5.8%) parameters have a "strong" position

88 (87.4%) parameters have a "satisfactory" position

7 (6.8%) parameters have "suggests improvement" position

**Conclusion of the External Expert Commission for the Assessment of the Quality of
the Educational Program 8D07109 Innovative Technologies and New Inorganic Materials
Non-profit joint stock company
“K.I. Satbayev Kazakh National Research Technical University”**

item No.	NN o.	Evaluation criteria	Position of the educational organization			
			Strong	Satisfactory	To be improved	Unsatisfactory
Standard " Management of Educational Programme"						
1	1.	The organisation of higher and (or) postgraduate education should have a published quality assurance policy. The quality assurance policy should reflect the link between research, teaching and learning		+		
2	2.	The organisation of higher and (or) postgraduate education should demonstrate the culture's development of quality assurance, including in EP context		+		
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.	EP management demonstrates readiness to ensure transparency of EP development plan based on the analysis of its functioning, EO actual positioning and the focus of its activities on meeting the needs of the state, employers, students and other concerned parties. The plan should contain the timing of the start of the implementation of the educational programme		+		
5	5.	EP management demonstrates the existence of mechanisms for the formation and regular revision of EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the students needs, employers and society, making decisions aimed at continuous improvement of EP		+		
6	6.	EP management should involve representatives of stakeholder groups, including employers, students and TS in the formation of EP development plan		+		
7	7.	EP management should demonstrate the individuality and uniqueness of EP development plan, its consistency with national priorities and the development strategy of the organisation of higher and (or) postgraduate education		+		

8	8.	The organisation of higher and (or) postgraduate education should demonstrate a clear definition of those responsible for business processes within EP framework, an unambiguous distribution of job duties of personnel, delineation of collegial bodies functions		+		
9	9.	EP management should provide evidence of the transparency of the educational programme management system		+		
10	10.	EP management should demonstrate the existence of EP internal quality assurance system, including its design, management and monitoring, their improvement, decision-making based on facts		+		
11	11.	EP management should carry out risk management, including within EP framework, undergoing initial accreditation, as well as demonstrate a system of measures aimed at reducing the risk degree			+	
12	12.	EP management should ensure the participation of representatives of employers, TS, students and other concerned parties in the collegial management bodies of the educational programme, as well as their representativeness in making decisions on the educational programme management		+		
13	13.	EO should demonstrate innovation management within EP framework, including the analysis and implementation of innovative proposals		+		
14	14.	EP management should demonstrate evidence of readiness for openness and accessibility for students, TS, employers and other concerned parties		+		
15	15.	The management of the EP must be trained in education management programs		+		
Total on standard			0	14	1	0
Standard "Information Management and Reporting"						
16	1.	EO should demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software and that it uses a variety of methods to collect and analyze information in EP context		+		
17	2.	EP management should demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.		+		
18	3.	EP management should demonstrate decision-making based on facts		+		
19	4.	Within EP framework, a system of regular reporting should be provided reflecting all levels of the structure, including an assessment of the performance and efficiency of the unit activities and departments, scientific research			+	
20	5.	EO should establish the frequency, forms and methods of assessing EP management, activities of collegial bodies and structural units, top management, the implementation of scientific projects		+		

21	6.	EO should demonstrate the determination of the order and ensuring the protection of information, including the identification of persons responsible for the accuracy and timeliness of the analysis of information and the data provision.		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and TS in the processes of collecting and analysing information, as well as making decisions based on them		+		
23	8.	EP management should demonstrate the existence of a communication mechanism with students, employees and other concerned parties, as well as mechanisms for resolving conflicts		+		
24	9.	EO should demonstrate the existence of mechanisms for measuring the degree of satisfaction of the TS needs, personnel and students within EP framework		+		
25	10.	EO should provide for the assessment of the performance and efficiency of activities, including in EP context		+		
		<i>The information intended for collection and analysis within EP framework should take into account:</i>				
26	11.	key effectiveness indicators		+		
27	12.	the dynamics of the students contingent in the context of forms and types;		+		
28	13.	academic results, student achievement and expulsion		+		
29	14.	satisfaction of students with the realization of EP and the quality of education at HEI		+		
30	15.	availability of educational resources and support systems for students		+		
31	16.	EO should confirm the realization of procedures for processing personal data of students, employees and TS on the basis of their documentary consent		+		
Total on standard			0	15	1	0
Standard "Development and Approval of the Education Programme"						
32	1.	EO should define and document the procedures for EP development and its approval at the institutional level		+		
33	2.	EP management should ensure that the developed EP meets the established objectives, including the expected learning outcomes		+		
34	3.	EP management should ensure the availability of developed models of EP graduate, describing the learning outcomes and personal qualities		+		
35	4.	EP management should demonstrate the performance of external examinations of EP content and the planned results of its implementation		+		
36	5.	The qualification awarded upon EP completion should be clearly defined and correspond to a certain NQS level		+		
37	6.	EP management should determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
38	7.	An important factor is the ability to prepare students for professional certification		+		
49	8.	EP management should provide evidence of the participation of students, TS and other stakeholders in EP development, ensuring their quality		+		

40	9.	EP complexity should be clearly defined in Kazakhstani credits and ECTS	+			
41	10.	EP management should ensure that the content of academic disciplines and planned results are consistent with the level of education (bachelor's, master's, doctoral studies).		+		
42	11.	EP structure should provide for various types of activities to ensure that students achieve the planned learning outcomes.		+		
43	12.	An important factor is the correspondence between EP content and EP learning outcomes, implemented by institutions of higher and (or) postgraduate education in the EHEA		+		
Total on standard			1	11	0	0
Standard "On-Going Monitoring and Periodic Review of Educational Programme"						
44	1.	EO should define mechanisms for monitoring and EP periodic evaluation in order to ensure the achievement of the goal and meet the needs of students and society. The results of these processes should be aimed at EP continuous improvement		+		
		<i>Monitoring and EP periodic evaluation should provide for:</i>				
45	2.	the content of the programmes in the light of the latest scientific achievements in a specific discipline to ensure the relevance of the taught discipline		+		
46	3.	changes in the needs of society and the professional environment		+		
47	4.	workload, the level of academic achievement and students' graduation		+		
48	5.	the 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 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.	EO, EP management should define a mechanism for informing all concerned parties about any planned or taken actions in relation to EP		+		
53	10.	All changes made to EP should be published. EP management should develop a mechanism for revising EP content and structure, considering changes in the labor market, employers' requirements and social demands of society		+		
Total on standard			0	10	0	0
Standard "Student-Centered Learning, Teaching and Performance Evaluation"						
54	1.	EP management should ensure respect and attention to different groups of students and their needs providing them with flexible learning trajectory		+		
55	2.	EP management should provide for the use of various forms and methods of teaching and learning		+		
56	3.	An important factor is the availability of own research in the field of teaching methods of EP academic disciplines		+		
57	4.	EP management should demonstrate the existence of feedback mechanisms on the use of various teaching methods and assessment of learning outcomes		+		

58	5.	EP management should demonstrate the existence of mechanisms to support the students' autonomy with simultaneous guidance and assistance from the teacher.		+		
59	6.	EP management should demonstrate the existence of a procedure for responding to student complaints		+		
60	7.	EO should ensure consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including appeal		+		
61	8.	EP should ensure that the procedures for assessing the learning outcomes of EP students are consistent with the planned results and programme objectives. Criteria and methods of assessment within EP framework should be published in advance		+		
62	9.	EO should determine the mechanisms for ensuring the achievement of learning outcomes by each EP graduate and ensure the completeness of their formation		+		
63	10.	Evaluators should be proficient in modern methods of assessing learning outcomes and regularly improve their qualifications in this area		+		
Total on standard			0	10	0	0
Standard "Students"						
64	1.	EO should demonstrate the existence of a policy for the formation of the students' contingent in EP context from admission to graduation and ensure the transparency of its procedures. The procedures governing the students' life cycle (from admission to completion) should be defined, approved, published		+		
		<i>EP management should determine the procedure for the formation of the students' contingent based on:</i>				
65	2.	minimum requirements for applicants		+		
66	3.	maximum group size when conducting seminars, practical, laboratory and studio classes		+		
67	4.	forecasting 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, including providing places in the hostel		+		
70	7.	EP management is obliged to demonstrate readiness to conduct special adaptation and support programmes for newly entered and foreign students		+		
71	8.	EO should demonstrate that its actions are consistent with the Lisbon Recognition Convention; EP management should demonstrate the existence of a mechanism for the recognition of the students' results of academic mobility, as well as the results of additional, formal and non-formal education		+		
72	9.	EO should cooperate with other educational institutions 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.	EO should provide an opportunity for external and internal mobility of EP students, as well as a willingness to assist them in obtaining external grants for training.		+		
74	11.	EP management should demonstrate its readiness to provide students with places of practice, to promote the graduates' employment, to maintain communication with them	+			
75	12.	EO should provide for the possibility of providing EP graduates with documents confirming the received qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion		+		
Total on standards			1	11	0	0
Standard "Teaching Staff"						
76	1.	EO should have an objective and transparent personnel policy, including in EP context, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff		+		
77	2.	EO should demonstrate the compliance of the TS staff potential with EO development strategy and EP specifics	+			
78	3.	EP management should demonstrate awareness of responsibility for their employees and providing them with favorable working conditions		+		
79	4.	EP management should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	EO should determine the contribution of TS of the EP to the implementation of EO development strategy, and other strategic documents		+		
81	6.	EO should provide opportunities for career growth and professional development of TS of the EP		+		
82	7.	EP management is obliged to demonstrate readiness to involve practitioners of the relevant industries in teaching.			+	
83	8.	EO should demonstrate motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activity and education, the use of innovative teaching methods		+		
84	9.	An important factor is the readiness to develop academic mobility within EP framework, to attract the best foreign and national teachers		+		
Total on standard			1	7	1	0
Standard "Education Resources and Student Support Systems"						
85	1.	EO should ensure a sufficient number of training resources and student support services that meet EP objectives.		+		
86	2.	EO should demonstrate the sufficiency of material and technical resources and infrastructure, considering the needs of students' various groups in EP context of (adults, working, foreign students, as well as students with disabilities).		+		
87	3	EP management is obliged to demonstrate the existence of procedures for supporting various groups of students, including informing and consulting.		+		

		EP management should demonstrate the compliance of information resources with EP specifics, including:				
88	4.	technological support for students and TS in accordance with educational programmes (for example, online training, modeling, databases, data analysis programmes)		+		
89	5.	library resources, including the fund of educational, methodological and scientific literature on compulsory education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
90	6.	examination of research results, graduation works, dissertations for plagiarism		+		
91	7.	access to educational Internet resources		+		
92	8.	functioning of WI-FI on the territory of the educational organisation		+		
93	9.	EO should strive to ensure that the educational equipment and software intended for use in the development of educational programmes are similar to those used in the relevant industries		+		
Total on standard			0	9	0	0
Standard "Public Information"						
		EO should publish reliable, objective, relevant information about the educational programme and its specifics, which should include:				
94	1.	expected learning outcomes of EP implemented		+		
95	2.	qualifications and (or) qualifications that will be awarded upon EP completion		+		
96	3.	approaches of teaching, learning, as well as the system (procedures, methods and forms) of assessment			+	
97	4.	information about passing scores and learning opportunities provided to students		+		
98	5.	information about the possibilities of employment of graduates		+		
99	6.	EP management should provide for various ways of disseminating information, including mass media, information networks to inform the general public and concerned parties		+		
100	7.	Public awareness should include support and explanation of the country's national development programmes and the system of higher and postgraduate education		+		
101	8.	EO should demonstrate the reflection on the web resource of information characterizing it in general and in EP context.		+		
102	9.	An important factor is the availability of adequate and objective information about EP TS		+		
103	10	An important factor is informing the public about cooperation and interaction with partners within EP framework		+		
Total on standard			0	9	1	0
TOTAL			3	96	4	0

3 (2.9%) parameters have a "strong" position

96 (93.2%) parameters have a "satisfactory" position

4 (3.9 %) parameters have the "suggests improvement" position

0% of parameters have the position "unsatisfactory"