



«АККРЕДИТЕУ ЖӘНЕ РЕЙТИНГТІҢ
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

REPORT

on the results of the work of the external expert evaluation commission
for compliance with the standards of primary specialized accreditation of
educational programs (Ex-ante)

7M08601 WATER RESOURCES AND WATER USE

HNON-COMMERCIAL JOINT-STOCK COMPANY "KAZAKH
NATIONAL RESEARCH TECHNICAL UNIVERSITY
K.I.SATPAYEV UNIVERSITY"

EC visit date: April 19-21, 2022

INDEPENDENT ACCREDITATION AND RATING AGENCY
External Expert Commission

*Addressed to
To the Accreditation Center
совеуу to the IAAR Council*



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Almaty

"21" April 2022

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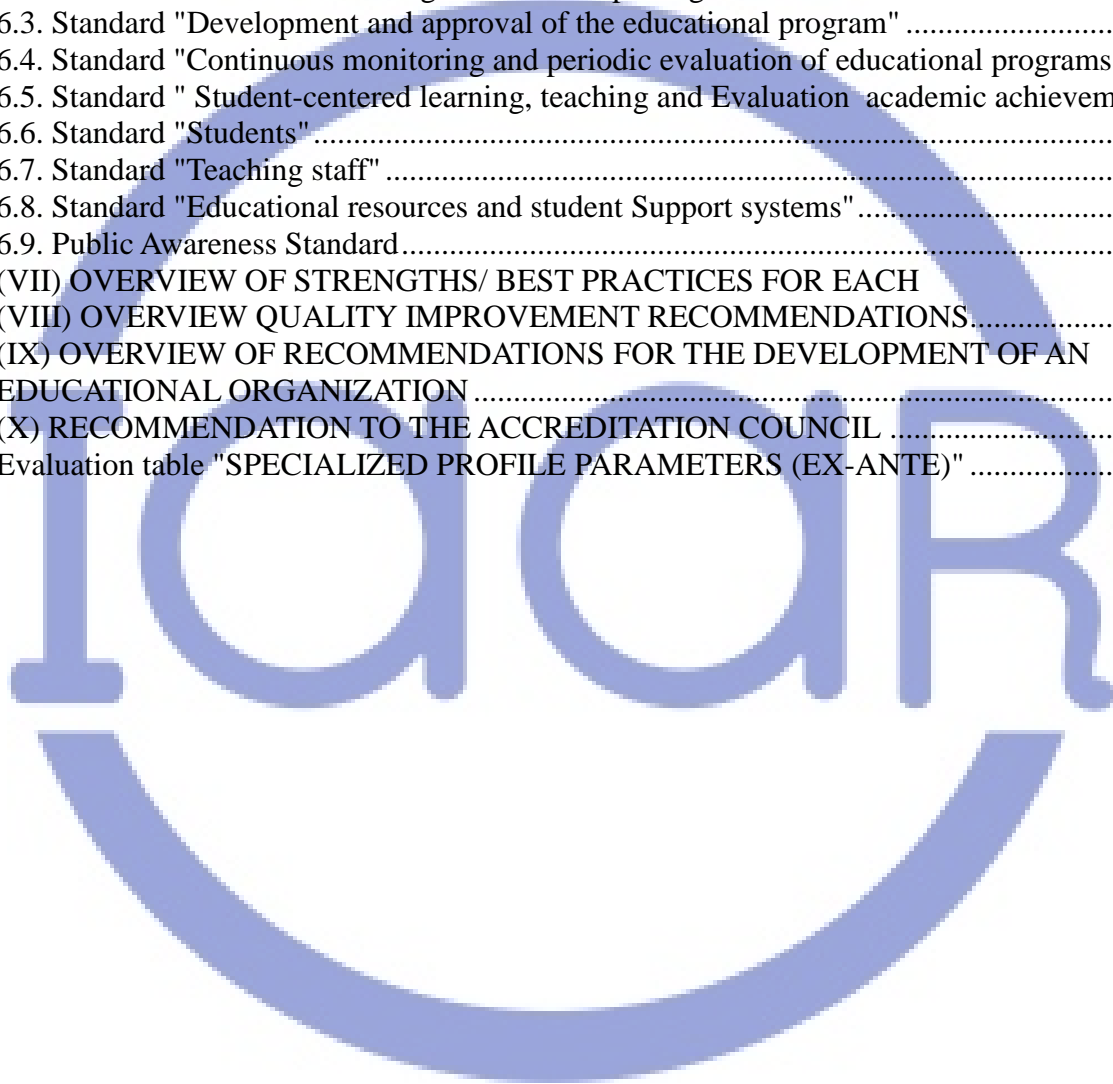
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(I) LIST OF SYMBOLS AND ABBREVIATIONS

DB – basic disciplines
SSO – the state mandatory standard of education
DP – documented procedure
DLT – distance learning technologies
UNT – Unified national testing
IEP – Individual curriculum
CTT- credit training technology
QED-catalog of elective subjects
MES RK -Ministry of Education and Science of the Republic of Kazakhstan
MOE-modular educational program
CBM-Modular curriculum
R&D – research work
R&D and publishing - research and innovation activities
Research and Development Center – research work of students
OOD – General education subjects
EP - educational program
PD-profile disciplines
TS -Teaching staff faculty members
RK – Republic of Kazakhstan
RUP – working curriculum
QMS-Quality management system
SRS – independent work of students
SRSP– independent work of students under the guidance of a teacher
TUPI – standard curriculum
TSS – Training and support staff
UMKS-educational and methodical complex of the specialty
UMKD – educational and methodical complex of the discipline
UMSU-Educational and Methodical Council of the University
UMR – educational and methodical work
EUMM – electronic teaching materials

(II) Introduction

In accordance with Order No. 44-22-OD of February 23, 2022 of the Director General From April 19 to April 21, 2022, an external expert commission evaluated the compliance of the educational programs listed below, including the external assessment of EP 7M08601 Water resources and water use of K.I.Satpayev Kazakh National Research Technical University 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 №. 68-18 / 1-OD of May 25, 2018).

The report of the External Expert Commission (EEC) contains an assessment of the submitted educational programs to the IAAR standards criteria, recommendations of the EC for further improvement of educational programs, and parameters of the profile of educational programs.

Composition of the EEC:

EEC *IAAR the chairman* – Alexander Cheslavovich Luschik, Doctor of Physical and Mathematical Sciences, Professor, Head of the Laboratory of Ion Crystal Physics at the Institute of Physics of the University of Tartu (Tartu, Estonia), is the Chairman of the IAAR EEC.

IAAR EEC Coordinator – Guliyash Balkenovna Niyazova, Project Manager for institutional and specialized accreditation of higher education institutions (Nur-Sultan, Republic of Kazakhstan).

Cluster 1. Primary specialized accreditation

6B05103
Environmental Engineering

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

IAAR expert, student – Serikkaliyev Tasbolat Serikkalieovich Serikkaliyev (Tasbolat Serikkalieovich), executive director of the branch of the alliance of students of higher education institutions in the West Kazakhstan region (Uralsk, Republic of Kazakhstan).

7M08601 ***Water resources and water use***

IAAR expert IAAR - Rufina Mukhamedzhanova, Director of the Quality Department of Almaty University of Energy and Communications named after G.Daukeyev (Almaty, Republic of Kazakhstan).

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

IAAR expert IAAR - Alexey Lozhnikov, Doctor of Technical Sciences, Professor of the National Technical University "Dnipro Polytechnic"

Cluster 2. Primary specialized accreditation

6B07305 ***Transport Construction,***
7M07320 ***Transport construction***

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

6B07115
Technological machines and equipment industry)

IAAR Expert – Sembaev Nurbolat Sakenovich, Candidate of Technical Sciences, Associate Professor of Toraigyrov University (Pavlodar, Republic of Kazakhstan).

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

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

8D07114

Nanomaterials and nanotechnologies

IAAR Expert – Najipkyzy Meruert, Candidate of Chemical Sciences, Associate Professor of the Al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan).

Cluster 3. Primary specialized accreditation

7M11201

Occupational Health and Safety at work

IAAR Expert – Baytelesova Laura Ilyasovna, Candidate of Chemical Sciences, Associate Professor of the West Kazakhstan University of Innovation and Technology (Uralsk, Republic of Kazakhstan).

8D07304

Engineering Systems and Networks

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

8D07305

Construction and manufacturing of building materials and structures

IAAR expert IAAR -Murat Amanzholovich Rakhimov, 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 IAAR - Saktaganova Nargul Amanovna, PhD, Associate Professor of Korkyt Ata Kyzylorda University (Kyzylorda, Republic of Kazakhstan).

IAAR expert, employer – Yuri Pilipenko, Chairman International Association of Producers of Goods and Services "Expobest "(Almaty, Republic of Kazakhstan).

Cluster 4. Primary Specialized Accreditation

8D11301 Transport Services

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

7M04104 Executive MBA

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

8D04102

Management

IAAR expert IAAR-Maya Arzayeva, PhD in Economics., Associate Professor of the Academy of Logistics and Transport (Almaty, Republic of Kazakhstan).

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

Cluster 5. Primary specialized accreditation

6B07114
Biomedical
Engineering

IAAR expert IAAR- Oksana Yurikova, PhD, Senior lecturer, Al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan).

6B07112
Electronic and
Electrical
Engineering

IAAR expert IAAR- Zhumazhanov Serik Karataevich, PhD, senior lecturer of the Kazakh Agrotechnical University named after S. Seifullin (Nur-Sultan, Republic of Kazakhstan).

8D06105
Information
Security Systems

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

6B07112
Electronic and
Electrical
Engineering

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

Cluster 6. Primary Specialized Accreditation

8D06104
Cybernetics and
Artificial
Intelligence

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

6B07106
Mechanical
Engineering

IAAR expert IAAR Expert - Bakhtiyar Balzhan Turepashkyzy, Candidate of Technical Sciences, Associate Professor of the Academy of Logistics and Transport (Almaty, Republic of Kazakhstan).

8D07110 Digital
Engineering of
machinery and
equipment

IAAR Expert IAAR- Andrey Kichuk, President of the National Agency for Quality Assurance in Education and Research - ANACEC (Kichinev, Moldova).

8D07109 Innovative
technologies and
new inorganic
materials

Эксперт IAARIAAR expert - Mashan Togzhan Turgaliyeva, PhD, Associate Professor L.N. Gumilyov Eurasian National University (Nur-Sultan, Republic of Kazakhstan).

IAAR expert, student – Dana Dauletkyzy Asylkhanova, a two-degree student EP 7M07121 Nanomaterials and nanotechnologies in Chemistry of Al - Farabi Kazakh National University-Peoples' Friendship University of Russia (Almaty, Republic of Kazakhstan).

(III) REPRESENTATION OF THE EDUCATIONAL ORGANIZATION

The mission of the Kazakh National Research Technical University named after K. I. Satpayev is to contribute to global well-being and expand the boundaries of knowledge by conducting advanced research and excellence in educational activities. The mission of the university corresponds to the management system and policy in the field of ensuring the quality of education.

Training of undergraduates in the specialty 7M08601 Water Resources and water use is conducted at the Department of "Hydrogeology, Engineering and Oil and Gas Geology" of the Institute of Geology and Oil and Gas Affairs of KazNTU named after K. I. Satpayev, according to license number KZ56LAA00005304, issued on 11.07.2015 by the Ministry of Education and Science of the Republic of Kazakhstan. Educational program 7M08601 - "Water resources and water use" is focused on training human resources that ensure innovative development and modernization of promising water sectors through the use of:

- high-tech high-tech production,
- new information technologies,
- integration into design and management.

(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

Educational program 7M08601 Water resources and water use 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 № 68-18/1-OD of May 25, 2018) is held for the first time.

(V) DESCRIPTION OF THE EC SESSION

Visit of an external expert commission to K.I. KazNRTU Satpayev was organized in accordance with the program.

The work of the HEC was carried out on the basis of the Audit Program of the External Expert Commission of the IAAR in the K. I. Satpayev KazNRTU of the NAO within the framework of primary specialized accreditation of educational programs in the period from April 19 to April 21, 2022.

To get objective information about the quality of educational programs and the entire infrastructure of the university, to clarify the content of self-assessment reports, meetings were held with Chairman of the Management Board-Rector, Vice-Rector for Academic Affairs, Vice-Rector for Corporate Development and Strategic Planning, Vice-Rector for Science and International Cooperation, Vice-Rector for Socio-Cultural Development and heads of structural divisions of the university, heads of departments, teachers, students, graduates, employers.

The events planned within the framework of the EEC visit helped to familiarize experts with the university's infrastructure, material and technical resources, faculty, students, representatives of employers and graduates of the university, which made it possible to conduct an independent assessment and develop recommendations for improving the university's activities.

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

6.1. Educational Program Management Standard

- ✓ *The university should demonstrate the development of the goal and strategy for the development of the EP based on the analysis of external and internal factors with a wide involvement of various stake holders.*
- ✓ *A quality assurance policy should reflect the relationship between research, teaching, and learning.*
- ✓ *The university demonstrates the development of a quality assurance culture.*
- ✓ *Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/two-degree education and academic mobility.*
- ✓ *The EP management ensures transparency in the development of the EP development plan based on an analysis of its functioning, the actual positioning of the university and the focus of its activities on meeting the needs*

of students, the state, employers and other interested parties.

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

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

✓ *The EP management should demonstrate the individuality and uniqueness of the EP development plan, its consistency with national development priorities and the development strategy of the educational organization.*

✓ *The university must demonstrate a clear definition of those responsible for business processes within the framework of the EP, the distribution of job responsibilities of personnel, and the division of functions of collegial bodies.*

✓ *The management of the EP ensures coordination of the activities of all persons involved in the development and management of the EP and its continuous implementation, as well as involves all stakeholders in this process.*

✓ *The EP management should ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and the adoption of appropriate decisions.*

✓ *The management of the EP should manage risks.*

✓ *Guide the EP should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegial management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program.*

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

✓ *Guide The EP should demonstrate its openness and accessibility to students, teaching staff, employers, and other interested parties.*

✓ *The EP management confirms the completion of training in educational management programs.*

✓ *Guide The EP should strive to ensure that progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.*

Proof part

The academic activity of KazNTU named after K. I. Satpayev is based on the main normative educational documents of the Ministry of Education and Science of the Republic of Kazakhstan.

The implementation and development of accredited educational programs is determined by the mission, development strategy of the university, as well as the development plans of the EP.

The mission corresponds to the current management system and Policy in the field of ensuring the quality of education. The definition of the mission, goals and objectives for the development of the university was based on the mission, goals and objectives of the national education system, given in the Laws of the Republic of Kazakhstan "On Education" and "On Science", "Strategy of Industrial and Innovative Development of the Republic of Kazakhstan", "Strategic Plan of the Ministry of Education and Science of the Republic of Kazakhstan".

The strategic goal and strategic objectives of the educational program correspond to the mission of the University, determined on the basis of the direction of the State Educational Policy of the Republic of Kazakhstan and the University Development Program, and correspond to the goals and objectives of the university's activities.

The educational process is managed through the management of individual educational programs.

The main educational and methodological documents developed by the departments of EP include: working curricula; schedule of the educational process of EP; working curricula; educational and methodological complexes of disciplines, including Syllabus; catalog of elective disciplines of EP. The university provides an annual review of the content of curricula and programs. Evaluation of the effectiveness of the educational process, academic performance, and quality of knowledge is also carried out in the context of programs.

The EP is developed taking into account the needs of interested parties and the credit system of training implemented at the university, the analysis of the EP is carried out in order to adjust it, taking into account the experience of teaching staff and the opinion of students.

An accessible educational resource environment has been created for training, including computer equipment, classrooms, computer classes, reading rooms, a book fund, a fund of educational digital materials, etc. The need for equipment, literature and software is determined by the head of the department, on the basis of whose applications the corresponding purchase of the required resources is made. Documents regulating the process of managing educational activities at the department are formed in accordance with the nomenclature of cases.

Analytical part

After holding meetings, conversations and interviews with vice-rectors, the head of the department, heads of structural divisions, students, teaching staff, as well as conducting a survey of teaching staff and students, detailed acquaintance of experts with the educational infrastructure of the university, material and technical, information and methodological resources and necessary documents, EEC IAAR notes the following.

NAO Kazakh National Research Technical University named after K. I. Satpayev has a published quality assurance policy, in which the interaction between teaching, training, as well as between the business community and the university plays a key role. This is evidenced by the fact that the strategic plan with the mission and vision included in it is posted on the University's website. The quality policy is available on the University's [website https://official.satbayev.university/ru/documents/standart-iso-9001-1-uroven](https://official.satbayev.university/ru/documents/standart-iso-9001-1-uroven).

The EP management ensures transparency and collegiality in the development of the EP development plan and its focus on meeting the needs of the state, employers, stakeholders and students. This is evidenced by the existence of plans for the development of accredited EPs.

Joint activities of departments and practice bases are aimed at ensuring communication between education and production. Based on the results of the practice results, surveys of managers of the practice bases, the content of the EP is systematically updated.

The EP management demonstrated the existence of an internal quality assurance system.

To maintain the effectiveness of educational programs, activities are carried out to further improve the content of the EP (development of elective subjects, improvement of the practical component, taking into account market needs); development of the modular principle of forming the EP; improvement of educational and methodological complexes of the EP and disciplines based on the National Qualifications Framework, taking into account the Dublin Descriptors and the European Qualifications Framework; development and improvement of individual plans of students etc., which is reflected in the Development Plans of educational programs of the EP. The means of collecting, accumulating and analyzing information about the implementation of the educational program, about the internal and external environment are the mechanism of sociological monitoring at the university; meetings of the university management with students; studying students' written appeals to the university management; the university website, student questionnaires.

Despite the fact that the management of the EP demonstrated innovation management within the framework of the EP, the commission nevertheless concluded that *the analysis and implementation of innovative proposals from stakeholders should be improved*.

For the full implementation of this standard, in particular, when forming a quality system, the university must identify the expected risks and opportunities. *The management of the EP does not fully disclose the risks to which the implemented EP may be exposed*. Knowledge of the risks could serve as a basis for developing a "risk-based approach" and taking measures to counter them. Following a risk-based mindset can help the university to create a proactive and proactive corporate culture of the University, aimed at improving the overall performance of work.

Strengths not identified

Suggests improvements:

the process of implementing risk management within the framework of an EP undergoing

primary accreditation, as well as the development of a system of measures aimed at reducing the degree of risk;

the process of innovation management within the framework of the EP, including the analysis and implementation of innovative proposals.

EEC recommendations

The University should help the EP management identify the main risks and opportunities for their management by September 1, 2022.

Ensure that the EP management analyzes and implements innovative proposals within the framework of the EP.

Conclusions of the Higher School of Economics on the standard "Educational program management" according to the criteria: strong-0; satisfactory-13; suggest improvements-2 unsatisfactory-0.

6.2. Information Management and Reporting Standard

- ✓ *The university should ensure the functioning of a system for collecting, analyzing and managing information based on modern information and communication technologies and software tools.*
- ✓ *The EP management demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system.*
- ✓ *The EP management demonstrates the existence of a reporting system that reflects the activities of all structural divisions and departments within the EP, including an assessment of their performance.*
- ✓ *The university should determine the frequency, forms and methods of evaluating the management of the EP, the activities of collegial bodies and structural divisions, and top management.*
- ✓ *The university must demonstrate a mechanism for ensuring information security, including identifying those responsible for the accuracy and timeliness of information analysis and data provision.*
- ✓ *The university demonstrates the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.*
- ✓ *The EP management should demonstrate the existence of mechanisms for communication with students, employees, and other stakeholders, including conflict resolution.*
- ✓ *The university should measure the degree of satisfaction with the needs of students, teaching staff and staff within the framework of the EP and demonstrate evidence of addressing the identified shortcomings.*
- ✓ *The university should evaluate the effectiveness and efficiency of its activities in the context of EP.*
- ✓ *The information collected and analyzed by the university within the framework of the EP should take into account::*
 - key performance indicators;*
 - dynamics of the number of students in the context of forms and types;*
 - the level of academic performance, student achievements, and deductions.*
 - 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;*
 - employment and career development of graduates.*
- ✓ *Students, teaching staff and staff must document their consent to the processing of personal data.*
- ✓ *The management of the EP should help to provide the necessary information in the relevant fields of science.*

Proof part

Information collection, analysis and management systems in the Russian Federation NAO Kazakh National Research Technical University named after K. I.Satbayev is an integral part of the system of planning, financial activities, process approach, and management of individual educational programs.

The University ensures transparency of information about educational quality audit processes and their results, as well as identifies the status of the results of measurement and analysis of processes. A record management procedure has been established (identification, storage, protection, access, terms of use, location). The university management and collegial management bodies make decisions based on facts, analysis of information from structural

divisions and data obtained from questionnaires, monitoring of the educational process, and other sources.

The EP management analyzes the external and internal environment and, in particular: the material and technical base, personnel support, the level of development of social partnership, international cooperation, career guidance and recruitment, competitive environment and employment, etc. Based on the results of the analysis, decisions are made on personnel issues, career guidance, the development of the material and technical base, and changes and additions to the development plan of the EP.

The main link of the information collection and analysis system is made up of teachers and university staff. They develop all the documentation of the university and EP, organize the activities of collegial bodies, involve interested parties in the management of the university, study the external and internal environment, and much more, which requires high professional and communicative qualities.

However, the EP management was not able to demonstrate the participation of undergraduates in decision-making based on data analysis.

Analytical part

Satbayev University has its own development-an Educational Portal that is a single entry point for students and teaching staff, providing access to electronic educational materials of disciplines, academic and individual plans, class and exam schedules, information about advisors and employers, news and announcements.

The portal provides interaction between students and teaching staff, as well as other departments directly or indirectly involved in the educational process. Through the relevant sections of the portal, applicants can enter the University, view their debts, complete their graduation, and much more. The main source of information data in the educational process is the permanently updated real-time database of the educational portal implemented on the basis of the Microsoft SQL Server product. The database contains up-to-date data on the current situation at the University, the number of students, academic performance, student body, etc.

However, the EP management could not demonstrate the involvement of students in the process of analyzing information and making decisions based on it.

Strengths not identified

Suggests improvements:

The process of mechanisms for involving students, employees and teaching staff in the process of collecting and analyzing information, as well as making decisions based on it.

EEC recommendations

The EP management is recommended to involve students, employees and teaching staff in the process of collecting and analyzing information, as well as making decisions based on it.

EEC's conclusions on the Information Management and Reporting standard according to the following criteria: strong-0; satisfactory-15; suggest improvements-1 unsatisfactory-0.

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

✓ *The university must demonstrate the existence of a documented procedure for developing the EP and its approval at the institutional level.*

- ✓ *The university must demonstrate that the developed EP meets the established goals and planned learning outcomes.*
- ✓ *The EP management should determine the impact of disciplines and professional practices on the formation of learning outcomes.*
- ✓ *The university demonstrates the existence of a graduate model of the EP, which describes the results of training and personal qualities.*
- ✓ *The qualification awarded upon completion of the EP should be clearly defined, explained and correspond to a certain level of NSC, QF-EHEA.*
- ✓ *The management of the EP should demonstrate the modular structure of the program based on ECTS, ensure that the structure of the content of the EP corresponds to the goals set, with a focus on achieving the planned learning outcomes of each graduate.*
- ✓ *The EP management should ensure that the content of academic disciplines and learning outcomes correspond to each other and the level of study (bachelor's, master's, doctoral studies).*
- ✓ *The EP management must demonstrate that external reviews of the EP are conducted.*
- ✓ *The EP management should provide evidence of the involvement of students, teaching staff, and other stakeholders in the development and quality assurance of the EP.*
- ✓ *The EP management should demonstrate the uniqueness of the educational program, its positioning in the educational market (regional/national/ international).*
- ✓ *An important factor is the ability to prepare students for professional certification.*
- ✓ *An important factor is the presence of a joint and / or two-degree program. EP with foreign universities.*

Proof part

The process and procedure for the development and approval of an accredited EP is carried out in accordance with the requirements of the State Educational Standard. At the same time, all relevant subjects of the university, students, teaching staff, departments, departments, etc. are involved. Implementation mechanisms are open and transparent, decision – making is collegial. The academic level and goals of the EP are determined in accordance with the requirements, are consistent with the mission of the university and meet the needs of potential consumers. All educational programs are developed in accordance with regulatory documents, *but there are no joint EPs with Kazakhstani educational organizations and the involvement of Kazakhstani research organizations in the educational process has not been demonstrated.*

Accredited educational programs are based on the following conditions: completion of education at each level (bachelor's and master's degrees); coordination of curricula and programs; satisfaction of educational requests of students and employers.

When developing the EP, its focus on training a specialist who meets modern requirements is taken into account: competitiveness, functional literacy, competence (subject, professional, informational, etc.). The cycle of general education disciplines is aimed at developing the general intellectual level. The centers of basic and profile disciplines are aimed at the formation of subject and professional competencies, the development of creative potential, increasing the level of competitiveness of graduates, the ability to successfully carry out their professional activities based on the acquired knowledge, skills, and personal qualities.

Taking into account the recommended ratio of the distribution of credits in ECTS for accredited students, the EP is developed according to the cycles of general education, basic and profile disciplines.

Shown The graduate model is a set of expected educational outcomes that the student will be able to demonstrate at a particular stage of mastering the main program.

The content of the EP and IEP disciplines is developed in accordance with the didactic principles of training. EP disciplines allow students to gain the necessary knowledge and develop competencies that enable them to carry out professional activities.

When developing the EP, the complexity of the academic load of students and undergraduates, all types of their educational activities that are provided for in the curriculum, including classroom and independent work, internships, etc., is taken into account. The labor intensity of independent work of students is determined depending on the credit allocated for the study of the discipline according to the RUP.

In the course of implementing educational disciplines, teaching staff use traditional and interactive ways and methods of teaching.

The EP documentation has been worked out in detail, taking into account the specifics of training students, and here there is a unique *EP* and specialized training of students for a specific employer. The management of the *EP* organically linked the requests of employers with the results of training and the mechanisms for their implementation on the basis of the university for each specific training path. All submitted opsare submitted annually for evaluation by accreditation organizations, often taking prizes. In addition, the assessment is made by employers, partner universities implementing joint training of specialists. On the basis of large partner enterprises, trainees receive additional training on the types of work performed for subsequent employment without losing time. At medium-sized and small partner organizations, interns perform certain types (works) of services, depending on the level of admission, which are implemented at the time of the internship. Ability to develop in detail the content of the *EP* and organize training of students, with the final result in the form of implemented two-degree education with foreign partner universities.

Analytical part

The Master's degree program is developed in accordance with the National Qualifications Framework and reflects the requirements of the professional standard of the industry developed by the Association of Legal Entities " Republican Association of Mining and Metallurgical Enterprises "(Minutes of the Committee meeting No. 22 dated October 31, 2018, Order No. 334 dated December 07, 2018) and the Association of Legal Entities "Association of Production Geological Organizations of the Republic of Kazakhstan" (minutes of the committee meeting dated 25.12.2019, order of approval № 263 dated 26.12.2019).

The *EP* includes completing professional practice in accordance with the schedule, in agreement with the practice bases, taking into account the availability of the appropriate material base and the qualifications of the practice managers, which affects the formation of training results.

However, the EP does not provide for professional certification.

Based on the completed Master's degree program, graduates have the opportunity to continue their studies in doctoral and post-doctoral programs. Currently, the university conducts purposeful educational activities based on the principle of integrity of the pedagogical process, deep integration of all subsystems and processes of higher professional education.

Best Practice

The *EP* management was able to demonstrate the influence of disciplines and professional practices on the formation of learning outcomes.

Suggest improvements

Possibility of carrying out professional certification

EEC recommendations

Provide an opportunity to obtain professional certification to strengthen the competencies of an *EP* graduate by September 1, 2023.

Review cooperation with leading universities and Kazakhstani research organizations in order to improve the quality of scientific research (for example, Kazakh Research Institute of Water Management).

Conclusions of the HEC on the standard "Development and approval of the educational program" according to the criteria: strong-1; satisfactory-10; suggest improvements-1 unsatisfactory-0.

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

- ✓ *The university should ensure that the structure and content of the EP are reviewed, taking into account changes in the labor market, the requirements of employers and the social demand of society.*
- ✓ *The university must demonstrate that there is a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuously improve the EP.*
- ✓ *Monitoring and periodic evaluation of the EP should consider:*
 - content of the program in the context of the latest achievements in science and technology in a particular discipline;*
 - changes in the needs of society and the professional environment;*
 - students' workload, academic performance, and graduation;*
 - effectiveness of student assessment procedures;*
 - the needs and degree of satisfaction of students;*
 - compliance of the educational environment and support services with the goals of the EP.*
- ✓ *The EP management should publish information about changes to the EP, inform interested parties about any planned or taken actions within the framework of the EP.*
- ✓ *Support services should identify the needs of different groups of students and the degree of their satisfaction with the organization of training, teaching, assessment, and development of the EP in general.*

Proof part

The performance analysis of the EP is carried out during the entire period of its implementation. In the process of conducting professional practice, the quality of EP is evaluated from the standpoint of the level of students' mastery of theoretical knowledge and skills for their application in the conditions of an educational institution at the place of internship. The main evaluation factors are feedback from the managers of the practice bases and reports of students on the results of the internship, feedback from external reviewers on their final papers. The article considers the features and significance of the modern structure of education and the updated system of monitoring students' achievements. The methodology of criterion-based assessment organizations and active learning methods are included in the UMCD.

Achievement of the EP's goals is also monitored based on the results of ongoing monitoring,

The workload of students is determined in accordance with regulatory documents. Employers are involved in the development and revision of the EP, *but it is necessary to expand their circle.*

The performance analysis of the EP is carried out during the entire period of its implementation. In the process of conducting professional practice, the quality of EP is evaluated from the standpoint of the level of students' mastery of theoretical knowledge and skills for their application in an educational institution. The main evaluation criteria are reviews of managers of practice bases and reports of students on the results of internships, reviews of external reviewers for final works.

Analytical part

The analysis of the development plan of the EP showed that the preparation of masters is implemented taking into account the author's and collective scientific and educational achievements, the requirements of employers, the demands of the labor market and the development of state programs of the Republic of Kazakhstan. Experts note that the content of the MOE and QED is reviewed annually, taking into account the requirements of the labor market.

The management of the EP informs interested parties about all changes made to the PAYMENT.

Assessment and determination of students' expectations, needs, satisfaction and market requirements is carried out on the basis of a survey of students and employers.

However, the EP development plan does not include a mechanism for analyzing identified inconsistencies and implementing corrective and preventive actions. The minutes of departments do not contain an analysis of the effectiveness of changes made to the EP on the proposals of employers and students.

Strengths not identified

EEC recommendations

On an ongoing basis, reflect changes made to the EP based on suggestions from employers and students.

Post all the necessary information on the university's website in a timely manner.

Conclusions of the Higher School of Economics according to the standard "Continuous monitoring and periodic evaluation of educational programs" according to the criteria: strong-0; satisfactory-10; suggest improvements-0 unsatisfactory-0.

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

- ✓ *The EP management should ensure respect and attention to different groups of students and their needs, and provide them with flexible learning paths.*
- ✓ *The management of the EP should ensure that teaching is based on modern achievements of world science and practice in the field of training, the use of various modern teaching methods and assessment of learning outcomes that ensure the achievement of the goals of the EP, including competencies, skills in performing scientific work at the required level.*
- ✓ *The management of the EP should determine the mechanisms for distributing the academic load of students between theory and practice in the framework of the EP, ensuring the development of the content and achievement of the goals of the EP by each graduate.*
- ✓ *An important factor is the availability of our own research in the field of methods of teaching EP disciplines.*
- ✓ *The university must ensure that the procedures for evaluating learning outcomes are consistent with the planned results and goals of the EP.*
- ✓ *The university should ensure consistency, transparency and objectivity of the mechanism for evaluating the learning outcomes of the EP, publication of evaluation criteria and methods in advance.*
- ✓ *Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area.*
- ✓ *The EP management should demonstrate the existence of a feedback system for using various teaching methods and evaluating learning outcomes.*
- ✓ *The EP leadership should demonstrate support for students' autonomy, while providing guidance and assistance from the teacher.*
- ✓ *The EP management should demonstrate that there is a procedure in place to respond to student complaints.*

Proof part

In NAO Kazakh National Research Technical University named after K.I. Satbayev systematically implements a student-centered approach to teaching, which is based on the fact that the student is an active "subject", and not a passive "object" of the educational process. The teacher becomes an assistant, the responsibility for learning is shared, and the learning process is discussed. Students are considered as individuals-their experience, characteristics, perceptual abilities, interests and needs are taken into account. Students, through student self-government, take part in the allocation of places in the dormitory, in the organization and control of examination sessions, and participate in meetings of collegial bodies of the university.

The EP management adheres to the principle of equal rights for all categories of students in accordance with international documents.

The EP management ensures equal opportunities for students, regardless of the language of instruction, to form an individual educational program. Academic disciplines within the framework of the EP are developed and conducted in the state, Russian and English languages, which provides equal opportunities for students to form a learning trajectory, develop the ability to independently solve problems in the field of professional activity, and develop experience in independently solving cognitive, communicative, organizational and other problems in future professional activities.

The University Registrar's Office, together with advisors, registers undergraduates in various disciplines and forms their individual study plans.

Personal development of undergraduates, their creative abilities and social competence are also formed in the social life of the university (for example, conferences, clubs, sections).

The department carries out the necessary work to prepare undergraduates for master's work: every year students choose topics that are interesting to them and correspond to their profile profession. Research topics, academic supervisors and reviewers are approved by the rector's order. They differ in their relevance and novelty in accordance with the requirements of the EP and the needs of modern society.

All the material of the discipline in the abstract presentation is considered in lectures, where the student independently studies all topics and sections of the discipline using the main and additional literature. At the SRSP, consultations and control of material assimilation are conducted, and current control points are awarded. Tasks for the SRS are contained in the Discipline Management Code.

Students' practical training is an important direction in the educational process. The professional growth of undergraduates as future competitive specialists depends on the effectiveness of the organization and consistency of all levels of practice.

Satisfaction monitoring of students, managers of enterprises – bases of practices and employers is carried out mainly through surveys.

Graduates expressed their wishes: to improve the quality of training specialists, it is necessary to bring theoretical knowledge as close as possible to practice, to supplement the list of elective subjects.

Students also have various other opportunities to make suggestions for improving their work – by participating in the work of student self-government, collegial bodies of the university, writing to the rector's blog, in the contact boxes, calling the helpline, or contacting the department's management directly.

The requirement of the principle of systematicity is the need to monitor and evaluate the activities (current control, boundary control, exam) and the results of students at all stages of studying the discipline. Systematic approach also means that all students are regularly evaluated.

The developed monitoring mechanisms and conditions allow for successful adjustment of the educational process. Feedback aimed at improving educational programs includes, as mentioned above, monitoring employers, graduates, etc.

The student has the right to appeal based on the results of the rating and final exam. For the period of the examination session, an appeal commission is created from among teachers whose qualifications correspond to the profile of disciplines.

Analytical part

During the visit to the department, it was revealed that attention to various groups of students and their needs is available, and the needs of students with disabilities are sufficiently taken into account.

At the same time, the Commission notes that the following questions regarding this standard are not fully reflected in the self-report and were not confirmed during the EEC visit.

The teaching staff of the department could not demonstrate their own research in the field of teaching methods of special (technical) disciplines within the framework of the EP.

Strengths not identified***EEC recommendations***

Conduct their own research in the field of teaching methods of special (technical) disciplines within the framework of the EP.

To organize regular refresher courses for teachers in higher school pedagogy and methods of teaching technical disciplines.

Conclusions of the EEC according to the standard "Student-centered learning, teaching and evaluation of academic performance" according to the criteria: strong-0; satisfactory-10; suggest improvements-0 ; unsatisfactory-0.

6.6. The "Learners" Standard

- ✓ *The university must demonstrate the policy of forming a contingent of students and ensure transparency and publication of procedures regulating the life cycle of students (from admission to completion).*
- ✓ *The EP management should provide for special adaptation and support programs for newly enrolled and foreign students.*
- ✓ *The university must demonstrate that its actions comply with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education.*
- ✓ *The university should provide opportunities for external and internal academic mobility of students, as well as assist them in obtaining external grants for training.*
- ✓ *The university should encourage students to self-educate and develop outside of the main program (extracurricular activities).*
- ✓ *An important factor is the availability of a support mechanism for gifted students.*
- ✓ *The university must demonstrate cooperation with other educational organizations and national centers of the " European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers " ENIC/NARIC to ensure comparable recognition of qualifications.*
- ✓ *The university should provide students with places of practice, demonstrate the procedure for promoting employment of graduates, and maintain communication with them.*
- ✓ *The university must demonstrate the procedure for issuing graduates with documents confirming their qualifications, including the achieved learning outcomes.*
- ✓ *GuideThe survey should demonstrate that graduates of the program have skills that are in demand in the labor market and that these skills are really relevant.*
- ✓ *GuideThe EP should demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates.*
- ✓ *An important factor is the existence of a functioning alumni association.*

Proof part

The policy of forming a contingent of students includes career guidance work during the year, direct work of the university admissions committee during the summer period, and managing the movement of the contingent during training and graduation.

Objective recognition of higher education qualifications, periods of study and prior education, including recognition of non-formal education, is an integral component of meeting the needs of students in the learning process and promotes mobility and is carried out on the

basis of "Regulations on academic mobility". In order to ensure proper recognition procedures, the University ensures that its actions comply with the Lisbon Recognition Convention – no discrimination on any grounds is allowed, transparency, consistency and reliability of procedures and criteria used in the assessment and recognition of qualifications are ensured, all required information is provided on request, etc.

Contingent of students enrolled in the EP consists of 3 undergraduates.

A competency-based approach to the formation of EP, studied disciplines, contributes to the implementation of professional, social, and personal competencies of students.

A system of motivation has been formed to attract undergraduates to research projects, they participate in conferences, round tables, etc. they are awarded with diplomas, certificates, letters of thanks and valuable gifts.

The University has created a mechanism for monitoring students' satisfaction with the university's activities in general and the quality of educational services provided. By participating in sociological surveys, representatives of students selected from representative samples give their assessment of the university's teaching system; material, technical, sanitary and hygienic conditions of the educational process; its educational, methodological and information technology security; the effectiveness of the forms and procedures used in conducting training sessions and monitoring academic achievements; the state of its social structure. infrastructure (quality of work of university cafes, canteens and buffets; medical care, etc.). In particular, students made various suggestions to improve the schedule, provide students and teachers with free Internet access, etc.

However, not all university buildings have uninterrupted access to Internet resources.

Analytical part

The analysis of the EP according to this standard allows us to draw the following conclusions.

1. The university demonstrated the policy of forming a contingent of students in the context of EP. This is evidenced by the fact that the current model of forming a contingent of students at the University complies with the legislation of the Republic of Kazakhstan, is based on the principle of transparency, unity, and consistency.

2. The EP management demonstrated the work on the upcoming employment of undergraduates.

The analysis of living conditions revealed insufficient provision of places in dormitories for all categories of students.

Best Practice

Undergraduates are provided with places of practice (state enterprise na PHV "Almaty Su", Geotherm LLP, Zonal Hydrogeological and Melioration Center of the Ministry of Agriculture of the Republic of Kazakhstan, Geotherm LLP, etc.), the procedure for promoting potential employment of graduates is demonstrated.

It is supposed to be improved:

Work out the availability of places in dormitories for students in need.

EEC recommendations

Необходимо оIt is necessary to provide places in the community centers for all categories of students.местами в общежитиях все категории обучающихся.

Conclusions of the Higher School of Economics on the standard "Students" according to the following criteria: strong-1; satisfactory-10; suggest improvements-1; unsatisfactory-0.

6.7. Standard "Teaching staff"

- ✓ *The university must have about a transparent and transparent HR policy in the context of the EP, including hiring (including invited teaching staff), professional growth and development of personnel, ensuring the professional competence of the entire staff.*
- ✓ *The university must demonstrate that the quality of teaching staff meets the established qualification requirements, the university's strategy, and the goals of the EP.*
- ✓ *The EP management should demonstrate a change in the role of the teacher in connection with the transition to student-centered learning and teaching.*
- ✓ *The university should provide opportunities for career growth and professional development of teaching staff, including young teachers.*
- ✓ *The university should involve in teaching specialists of relevant industries who have professional competencies that meet the requirements of the EP.*
 - *The university must demonstrate the existence of a mechanism for motivating the professional and personal development of teaching staff.*
- ✓ *The university must demonstrate the wide use of teaching staff of information and communication technologies and software tools in the educational process (for example, on-line training, e-portfolio, MOHSs, etc.).*
- ✓ *The university must demonstrate its focus on developing academic mobility and attracting the best foreign and domestic teachers.*
- ✓ *The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity in the university, and determine the contribution of teaching staff, including invited ones, to achieving the goals of the EP.*
- ✓ *An important factor is the involvement of teaching staff in the development of the economy, education, science and culture of the region and the country.*

Proof part

The personnel policy of KazNTU named after K.I.Satpayev is an integral part of the strategic policy of the university, designed to bring the personnel potential in line with the mission and goals of the university. The purpose of the personnel policy of KazNTU is to create a system for the formation, development and management of the university's personnel with a high level of professionalism.

The staff of teachers is formed from competent and highly qualified employees who have a fairly extensive experience in scientific, pedagogical and practical activities.

The staff of the EP is staffed in accordance with the legislation of the Republic of Kazakhstan and (Rules for certification and competitive replacement of teaching staff positions of the K.I. Satpayev KazNTU NAO P029-06-10.3.01-2019). Competitive selection of candidates for vacant positions is carried out in accordance with the qualification characteristics of research and teaching staff positions, as well as by placing ads in national newspapers and the University's website.

All teaching staff meet the qualification requirements of educational activities in accordance with the Law of the Republic of Kazakhstan "On Education". The main indicators of the success of the HR policy implementation are improvement of the quality level of teaching staff. In this direction, the university carries out purposeful work, as evidenced by the steady qualitative growth of teaching staff.

The need for training university staff is determined by the qualification requirements set out in the job descriptions of employees. Assessment of specialists of structural divisions is carried out by conducting attestation in order to determine the level of their professional training and ability to perform the duties assigned to them.

Full-time staffing is 100%. The website of the university provides information about the heads of structural divisions with telephone numbers and email addresses, and provides feedback. Interested persons can get information about the qualifications of teaching staff on the university's website, which contains data on teachers, advanced training, a list of main works, and a list of subjects read.

To determine the level of competence of teaching disciplines at departments, mutual and control visits to classes are carried out, open classes are held.

Special attention should be paid to the use of technical teaching tools, visual clarity, and illustrative material; the use of interactive teaching methods in combination with traditional ones in the classroom.

Teaching staff, according to their scientific and pedagogical qualifications, conduct research work and prepare undergraduates for participation in scientific seminars, conferences, etc.

Teachers annually take part in various conferences of international and national significance. Teachers are also published in publications in journals recommended by the Committee for Control in the Field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan.

Analytical part

The analysis of the EP according to this standard leads to the following conclusions. The University has an objective and transparent personnel policy. Experts note that the staff of the teaching staff of the EP is staffed in accordance with the legislation of the Republic of Kazakhstan and the Rules for competitive replacement of positions of scientific and pedagogical personnel of higher educational institutions.

The EP leadership demonstrated targeted actions for the development of young teachers. This is evidenced by the fact that young teachers are currently studying in the Master's and doctoral programs of the Republic of Kazakhstan.

The management of the EP demonstrated purposeful actions for the development of young teachers. This is evidenced by the fact that young teachers are currently studying in the master's and doctoral programs of the Republic of Kazakhstan.

The university demonstrated the motivation of the professional and personal development of the teachers of the EP. This is evidenced by the presence at the university of the rating of each teacher according to various coefficients in the form of points.

The staff of the department should be expanded within the framework of the specifics of the EP "Water resources and water use". Thus, the management of research and master's theses is carried out by the only teacher who meets the qualification requirements of the Ministry of Education and Science of the Republic of Kazakhstan, Candidate of Technical Sciences, Professor Ospanov Kairat Tolegenovich.

Strengths not identified

EEC recommendations

It is recommended to expand the staff of the department, taking into account the qualification requirements for educational activities of the Ministry of Education and Science of the Republic of Kazakhstan (until September 1, 2022).

Conclusions of the Higher School of Economics according to the standard "Teaching staff" according to the criteria: strong-0; satisfactory-8; suggest improvements-1; unsatisfactory-0.

6.8. Standard "Educational resources and student Support Systems"

- ✓ *The university must ensure that the infrastructure and educational resources, including material and technical resources, meet the goals of the educational program.*
- ✓ *The EP management must demonstrate that classrooms, laboratories, and other facilities equipped with modern equipment are sufficient to meet the EP 's goals.*
- ✓ *The university must demonstrate that the information resources meet the needs of the university and the implemented educational programs, including in the following areas::*
 - technological support for students and teaching staff in accordance with educational programs (for example, online training, modeling, databases, data analysis programs);*
 - library resources, including the collection of educational, methodological and scientific literature on general education, basic and profile disciplines on paper and electronic media, periodicals, access to scientific databases;*
 - examination of research results, graduation papers, and dissertations for plagiarism;*
 - access to online educational resources;*
 - operation of WI-FI on its territory.*
- ✓ *The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, and publishing the results of research work of teaching staff, employees, and students.*
- ✓ *The university should strive to ensure that the educational equipment and software used for mastering educational programs are similar to those used in the relevant sectors of the economy.*
- ✓ *The EP management should demonstrate that there are procedures in place to support various groups of students, including informing and advising them.*
- ✓ *The EP management should show that there are conditions for the student's progress along the individual educational path.*
- ✓ *The university should take into account the needs of different groups of students (adults, working people, foreign students, as well as students with special educational needs).*
- ✓ *The university must ensure that the infrastructure meets the security requirements.*

Proof part

The graduate department of the EP "Water Resources and Water Use" is the Department of "Hydrogeology, Engineering and Oil and Gas Geology", which has educational laboratories and specialized classrooms. The department has 19 classrooms used in the educational process.

The Tank Modeling laboratory is equipped with Petrel software. You can use the program to build a 3D tank model and calculate inventory counts, design properties, and prepare maps for printing. You can also upload data to Petrel, build faults based on different types of source data, build a grid based on a fault model and insert horizons into it (in the time domain), then convert the created horizons (and the entire grid) to depth and divide the model into zones and layers. Then, based on information from wells, calculate the petrophysical properties of the model.

The Laboratory of Lithology and lithofacial analysis is equipped with polarizing microscopes of the Leica, Ortolux, Motic and Polam brands. Microscopes are used to determine the microscopic description of the mineral composition, structural features, organic inclusions of sedimentary rocks, pore space, fracturing and trickery of oil and gas reservoirs.

The Reservoir Physics laboratory is equipped with Corelab equipment for determining permeability and porosity, as well as classes in oil and gas geochemistry and oil and gas hydrogeology.

The Laboratory of Hydrogeology and Engineering Geology is equipped with laboratory devices for determining the main parameters for water analysis and other devices, there are certificates of equipment verification.

Analytical part

The information provided by the university on the specified EP on material and technical and information resources demonstrates a strong material and technical base.

As a result of the analysis of the EP 's activities under this standard, it can be concluded that the assessment of the completeness and availability of material, technical and information resources specified by the EP was carried out. There is a dynamic of resources and the learning environment, library support for the educational process, and measures aimed by the EP management at improving the resource support for the implementation of the EP are highlighted. An extensive material and technical base is represented by our own laboratories, competence centers and production bases of employers. Extensive library collections and subscriptions to the world's electronic databases allow students to become familiar with books and periodicals that are constantly updated. Analysis of the literature available at the University showed that there is not enough literature in the state language, according to the qualification requirements for educational activities of the Ministry of Education and Science of the Republic of Kazakhstan, 100% provision of disciplines with literature is required.

During a visual inspection of the university buildings, the EEC members were personally convinced and noted that WI-FI is not available in all university buildings WI-FI.

The teaching staff takes part in the discussion of the program's objectives during its development, and can also get acquainted with it on the portal "Hydrogeology, Engineering and Oil and gas Geology". <https://official.satbayev.university/ru/geology-oil-gas-business/gog>

Strengths not identified**Suggest improvements**

Access to Internet-resources and continuous updating of the university's educational and methodological base

EEC recommendations

Ensure uninterrupted access to Internet resources in all university buildings by operating WI-FI on the university territory (until September 1, 2023)

To meet the needs of various groups of students, the library resources fund will be replenished (by September 1, 2023).

EEC's conclusions on the standard "Educational resources and student Support systems" according to the following criteria: strong-0; satisfactory-7; suggest improvements-2; unsatisfactory-0.

6.9. "Informing the Public" Standard

✓ *The university guarantees that the published information is accurate, objective, up-to-date and reflects all areas of the university's activities within the framework of the educational program.*

✓ *Public awareness should include supporting and explaining the national development programs of the country and the system of higher and postgraduate education.*

✓ *University management should use a variety of ways to disseminate information (including mass media, web resources, information networks, etc.) to inform the general public and interested parties.*

✓ *Information about the educational program is objective, up-to-date and should include::*

✓ *the purpose and planned results of the EP, the qualification to be assigned;*

✓ *information about the system for evaluating students ' academic achievements;*

- ✓ *information about academic mobility programs and other forms of cooperation with partner universities and employers;*
- ✓ *information about opportunities for developing students ' personal and professional competencies and employment;*
- ✓ *data that reflects the EP's positioning in the educational services market (at the regional, national, and international levels).*
- ✓ *An important factor is the publication on open resources of reliable information about teaching staff, in the context of personnel.*
- ✓ *The university must publish on its own web resource the audited financial statements on the EP.*
- ✓ *The university should post information and links to external resources based on the results of external assessment procedures.*
- ✓ *An important factor is the publication of information about cooperation and interaction with partners, including scientific/consulting organizations, business partners, social partners, and educational organizations.*

Proof part

The analysis of the external environment shows that the university has a long-standing and stable positive image, which was formed in the public consciousness as a result of its long and multifaceted activities, reflected in the regional media. To a large extent, the formation of a positive image of the university is influenced by the active dissemination of information about its activities. Information is posted on the university's website both in the news section and in the thematic sections.

The university administration uses various methods of information dissemination - briefings organized by the management, open days, data on vacancies at the university, round tables with heads of enterprises and institutions, monthly and weekly professional orientation.

The university's activities, in full accordance with its vision and mission, are closely linked to the life of society. University lecturers take part in city, regional and national events; public figures, masters of culture, politicians participate in university events; articles and speeches of the university's management and scientists are presented in the mass media.

Analytical part

The analysis of the EP according to this standard allows us to draw the following conclusions. The information published by the EP management within the framework of the EP is accurate, objective and up-to-date. The Commission notes the systematic work on posting information on the site, which allows ensuring transparency of activities. The EC notes that full information about teachers participating in the implementation of accredited programs is available on the university's website. The university management of the EP uses a variety of ways to disseminate information to inform the general public and interested persons

The following official social media accounts are maintained: Instagram https://www.instagram.com/satbayev_university/

Facebook <https://www.facebook.com/satbayevuniversity>

VK <https://vk.com/satbayevuniversity>

Telegram https://t.me/Satbayev_University_Official

LinkedIn <https://www.linkedin.com/school/1048308/admin/>

Twitter https://twitter.com/NITU_Satpaev

YouTube <https://www.youtube.com/channel/UCzpfUbR-imEHB1hOX9tnKEg>

TikTok https://www.tiktok.com/@satbayev_official?lang=en

Gooogle Business <https://business.google.com/u/2/posts/1/13945254457139118465>

Despitethis, EC experts note that it is necessary to consider ways to inform the public about cooperation and interaction with partners, including updating the EP.

The University manages information on accredited educational programs at a satisfactory level. The EP management uses a variety of information dissemination methods, including mass media, information and social networks to inform the general public and interested parties.

Members of the commission note the availability on the university's website of objective and up-to-date information within the framework of the EP, including: implemented EP, indicating the expected learning outcomes; information on the possibility of awarding qualifications at the end of the EP; information on various opportunities provided to students; information on the achievements of the teaching staff of the EP.

The university has well-organized and virtually proven activities of the EP and teaching staff management in social networks.

Strengths not identified

EEC recommendations

Conduct systematic internal monitoring of the website and evaluate the extent to which the site meets modern requirements in the context of the educational program.

Conclusions of the EEC on the "Public Awareness" standard according to the following criteria: strong-0; satisfactory-10; suggest improvements-0; unsatisfactory-0.

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

Educational Program Management Standard

Strengths/best practices not identified.

Information Management and Reporting Standard

Strengths/best practices not identified.

Standard "Development and approval of an educational program"

Disciplines and professional practices influence the formation of learning outcomes within the framework of the EP.

Standard "Continuous monitoring and periodic evaluation of educational programs"

Strengths/best practices not identified.

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

Strengths/best practices not identified.

Standard "Students"

Undergraduates are provided with places of practice (GKP na PHV "Almaty Su", Geotherm LLP, Zonal Hydrogeological and Melioration Center of the Ministry of Agriculture of the Republic of Kazakhstan, Geotherm LLP, etc.).

The procedure for promoting potential employment of EP graduates is demonstrated.

Standard "Teaching staff"

Strengths/best practices not identified.

Standard "Educational resources and student support systems"

Сильные стороны/strong sides/best practices were identified.

Public Awareness Standard

Strengths/best practices not identified.

(VIII) OVERVIEW RECOMMENDATIONS FOR IMPROVING QUALITY

«Educational Program Management Standard

The university and the management of the EP to identify the main risks and opportunities for their management by September 1, 2022.

Ensure that the EP management analyzes and implements innovative proposals within the framework of the EP.

Information Management and Reporting Standard

The EP management is recommended to involve students, employees and teaching staff in the process of collecting and analyzing information, as well as making decisions based on it.

Standard "Development and approval of an educational program"

Provide an opportunity to obtain professional certification to strengthen the competencies of an EP graduate by September 1, 2023.

Review cooperation with leading universities and Kazakhstan research organizations in order to improve the quality of scientific research (for example, Kazakh Research Institute of Water Management).

Standard "Continuous monitoring and periodic evaluation of educational programs"

On an ongoing basis, reflect changes made to the EP based on suggestions from employers and students.

Post all necessary information on the university's web site in a timely manner.

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

Conduct their own research in the field of teaching methods of special (technical) disciplines within the framework of the EP.

To organize regular refresher training in higher school pedagogy and methods of teaching technical disciplines.

Standard "Students"

Необходимо обеспечить местами в общежитиях все категории обучающихся.

Standard "Teaching staff"

It is recommended to expand the staff of the department, taking into account the qualification requirements for educational activities of the Ministry of Education and Science of the Republic of Kazakhstan (until September 1, 2022).

Standard "Educational resources and student support systems"

To ensure uninterrupted access to Internet resources in all buildings of the University through the functioning of WI-FI on the territory of the university (by September 1, 2023).

To meet the needs of various groups of students to replenish the library resources (by September 1, 2023).

Public Awareness Standard

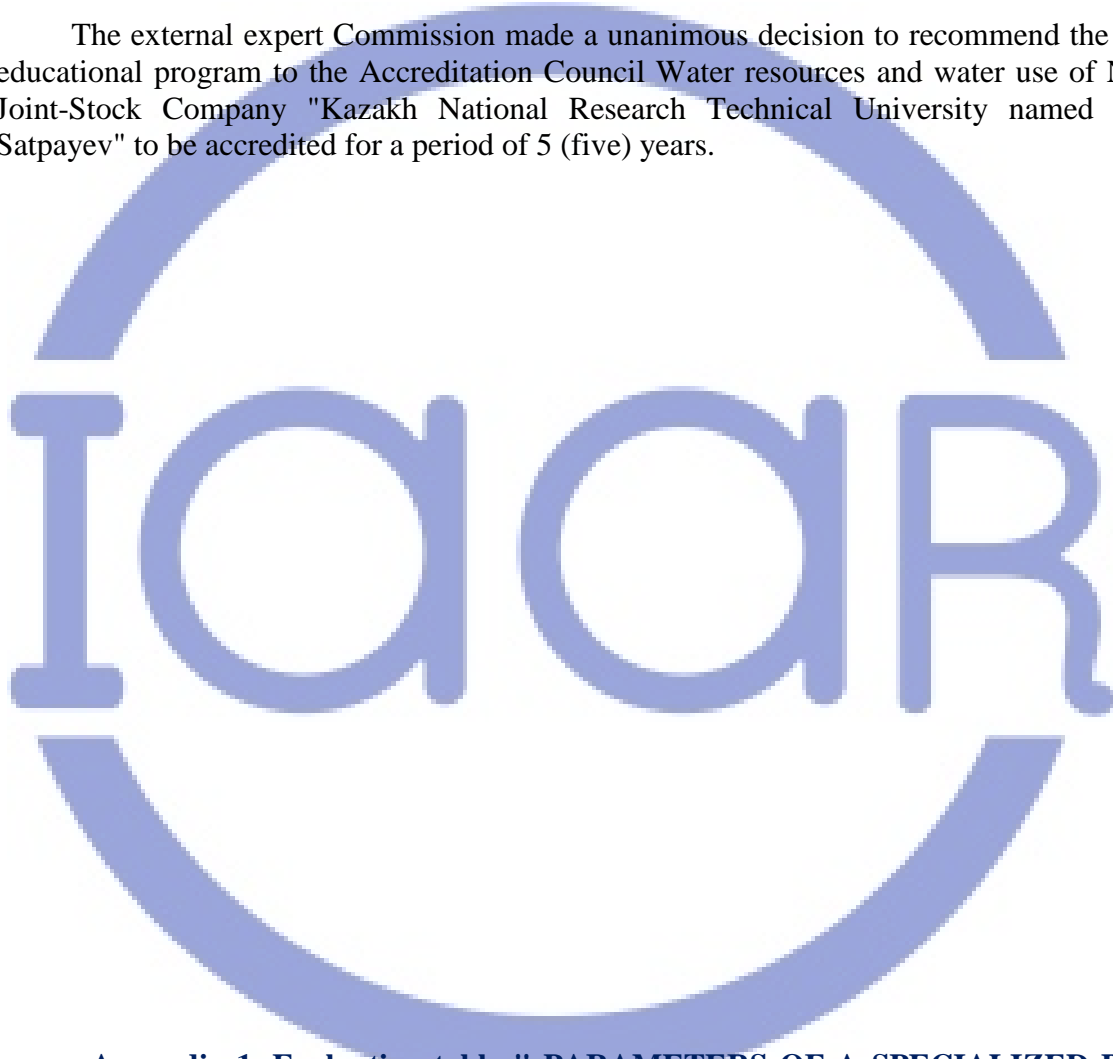
Conduct systematic internal monitoring of the website and evaluate the extent to which the site meets modern requirements in the context of the educational program.

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

Not available

(X) RECOMMENDATION TO THE ACCREDITATION COUNCIL

The external expert Commission made a unanimous decision to recommend the 7M08601 educational program to the Accreditation Council Water resources and water use of Non-profit Joint-Stock Company "Kazakh National Research Technical University named after K.I. Satpayev" to be accredited for a period of 5 (five) years.



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

**Conclusion of the External Expert Commission on the quality assessment of the educational program 7M08601 Water resources and water use
Non-profit joint-stock company
Kazakh National Research Technical University named after K. I. Satpayev**

n	№ \ n n \ n	Evaluation criteria	The Position of the educational organization
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			Is Strong	Satisfactory	Suggests improvement	Unsatisfactory
Standard "Managing the educational program"						
1	1.	An organization of higher and / or postgraduate education should have a published quality assurance policy that reflects the relationship between research, teaching and learning		+		
2	2.	The organization of higher and / or postgraduate education should demonstrate the development of a culture of quality assurance, including in the context of EP		+		
3	3.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint/two-degree education and academic mobility		+		
4	4.	The PA management demonstrates transparency in developing a development plan for the PA, which contains the start dates for implementation, based on an analysis of its functioning, the actual positioning of the PA and the focus of its activities on meeting the needs of the state, employers, students and other interested parties		+		
5	5.	The EP management demonstrates the existence of mechanisms for the formation and regular revision of the development plan EE and monitoring its implementation, assessing the achievement of learning objectives, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of EE		+		
6	6.	The EP management should involve representatives of interested groups, including employers, trainees and teaching staff, in the development of the EP		+		
7	7.	The management of the EP should demonstrate the individuality and uniqueness of the plan EE development, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education		+		
8	8.	The organization of higher and (or) postgraduate education should demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of job responsibilities of personnel, and differentiation of functions of collegial bodies		+		
9	9.	The EP management must provide evidence of the transparency of the educational program management system		+		
10	10.	The EP management should demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, and fact-based decision		+		
11	11.	The management of the EP should perform risk management, including within the framework of the EP undergoing primary accreditation, as well as demonstrate a system of measures aimed at reducing the degree of risk			+	
12	12.	The EP management should ensure the participation of representatives of employers, teaching staff, students and other interested persons in the composition of the collegial management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program		+		

13	13.	The public organization must demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals			+		
14	14.	The EP management should demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties			+		
15	15.	The EP management should be trained in educational management programs			+		
Total according to the standard			0	13	2	0	
Standard "Information management and reporting"							
16	1.	The public organization should demonstrate that it has a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software tools, and that it uses a variety of methods for collecting and analyzing information in the context of EP			+		
17	2.	EP management should demonstrate that there is a mechanism for systematic use of processed, adequate information to improve the internal quality assurance system			+		
18	3.	EP management should demonstrate fact-based decision			+		
19	4.	Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research			+		
20	5.	The public organization should establish the frequency, forms and methods of evaluating the management of the public administration, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects			+		
21	6.	The public organization must demonstrate the definition of the procedure and ensuring the protection of information, including the identification of those responsible for the accuracy and timeliness of information analysis and data provision			+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them				+	
23	8.	The EP management should demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for conflict resolution			+		
24	9.	The PA should demonstrate that there are mechanisms in place to measure the degree of satisfaction of the needs of staff, staff and trainees within the framework of the EP			+		
25	10.	The public organization should provide for an assessment of the effectiveness and efficiency of its activities, including in the context of EP			+		
		<i>Information intended to be collected and analyzed within the framework of the EP should take into account::</i>					
26	11.	key performance indicators			+		
27	12.	dynamics of the student body in terms of forms and types			+		
28	13.	level of academic performance, student achievements and expulsions			+		
29	14.	satisfaction of students with the implementation of the EP and the quality of education at the university			+		
30	15.	availability of educational resources and support systems for students			+		

31	16.	The public organization must confirm the implementation of procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent		+		
Total for the standard			0	15	1	0
Standard "Development and approval of the educational program"						
32	1.	The PA should define and document procedures for the development of the EP and their approval at the institutional level		+		
33	2.	The management of the EP should ensure that the content of the EP meets the established goals, including the expected learning outcomes		+		
34	3.	The EP management should demonstrate the existence of mechanisms for reviewing the content and structure of the EP, taking into account changes in the labor market, employers' requirements, and the social demand of society		+		
35	4.	The EP management should ensure that there are developed models of the EP graduate describing learning outcomes and personal qualities		+		
36	5.	The management of the EP should demonstrate external expertise of the content of the EP and the planned results of its implementation		+		
37	6.	The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of NSC and QF-EHEA		+		
38	7.	EP management should determine the impact of disciplines and professional practices on the formation of learning outcomes	+			
30	8.	An important factor is the possibility of training students for professional certification			+	
40	9.	The management of the EP should provide evidence of the participation of students, teaching staff and other interested parties in the development of the EP, ensuring its quality		+		
41	10.	The EP management should ensure that the content of academic disciplines and planned results correspond to the level of study (bachelor's, master's, doctoral studies).		+		
42	11.	The structure of the EP should provide for various types of activities that ensure that students achieve the planned learning outcomes		+		
43	12.	An important factor is the correspondence of the content of the EP and the learning outcomes of the EP implemented by organizations of higher and (or) postgraduate education in the EHEA		+		
Total according to the standard			1	10	1	0
Standard "Continuous monitoring and periodic evaluation of educational programs"						
44	1.	The public organization should define mechanisms for monitoring and periodically evaluating the EP to ensure that the goal is achieved and that the needs of students and society are met, and show that the mechanisms are aimed at continuous improvement of the EP		+		
		<i>Monitoring and periodic evaluation of the EP should include::</i>				
45	2.	program contents in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the discipline taught		+		
46	3.	changes in the needs of society and the professional environment		+		
47	4.	load, academic performance and graduation of students		+		
48	5.	effectiveness of student assessment procedures		+		
49	6.	expectations, needs and satisfaction of students with training in the EP		+		
50	7.	educational environment and support services, and their compliance with the goals of the EP		+		

51	8.	EP management should demonstrate a systematic approach to monitoring and periodically evaluating the quality of EP		+		
52	9.	The PA and the management of the EP should define a mechanism for informing all stakeholders of any planned or undertaken actions in relation to the EP		+		
53	10.	All changes made to the EP must be published		+		
Total for the standard			0	10	0	0
Standard "Student-centered learning, teaching and assessment of academic»						
54	1.	The EP management should ensure respect and attention to different groups of students and their needs, and provide them with flexible learning paths		+		
55	2.	The EP guidelines should provide for the use of various forms and methods of teaching and learning		+		
56	3.	An important factor is the availability of our own research in the field of teaching methods of academic disciplines EP		+		
57	4.	The EP management should demonstrate the existence of feedback mechanisms on the use of various teaching methods and assessment of learning outcomes		+		
58	5.	The EP management should demonstrate the existence of mechanisms to support students ' autonomy, with simultaneous guidance and assistance from the teacher		+		
59	6.	EP management should demonstrate that there is a procedure in place to respond to student complaints		+		
60	7.	The PA should ensure consistency, transparency and objectivity of the learning outcomes assessment mechanism for each EP, including the appeal		+		
61	8.	The public organization should ensure that the procedures for evaluating the learning outcomes of EP students correspond to the planned results and goals of the program, and that the evaluation criteria and methods are published in advance		+		
62	9.	The PA should define mechanisms for ensuring that each EP graduate achieves learning outcomes and ensure that they are fully formed		+		
63	10.	Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area		+		
Total for the standard			0	10	0	0
Standard "Students"						
64	1.	The public organization must demonstrate the existence of a policy for forming a contingent of students in the context of EP, ensure transparency and publication of its procedures regulating the life cycle of students (from admission to completion).		+		
		<i>The EP management should determine the procedure for forming a contingent of students 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 state grants		+		
68	5.	analysis of available material and technical resources, information resources, and human resources		+		
69	6.	analysis of potential social conditions for students, including: including provision of places in the hostel			+	
70	7.	The EP management should demonstrate its readiness to conduct special adaptation and support programs for newly enrolled and foreign students		+		

71	8.	The public organization must demonstrate that its actions comply with the Lisbon Recognition Convention, that there is a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education		+		
72	9.	The NGO should cooperate with other educational organizations and national centers "European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers " ENIC/NARIC to ensure comparable recognition of qualifications		+		
73	10.	The public organization should provide opportunities for external and internal mobility of EP students, as well as readiness to assist them in obtaining external grants for training		+		
74	11.	The EP management should demonstrate its readiness to provide students with internship places, promote employment of graduates, and maintain communication with them	+			
75	12.	The public organization should provide the opportunity to provide graduates of the EP with documents confirming their qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion		+		
Total according to the standard			1	10	1	0
Standard "Teaching staff"						
76	1.	The public organization should have an objective and transparent personnel policy, including in the context of the EP, including hiring, professional growth and development of personnel, ensuring the professional competence of the entire staff		+		
77	2.	The public organization must demonstrate that the personnel potential of the teaching staff corresponds to the specifics of the EP			+	
78	3.	EP management should demonstrate an awareness of responsibility for its employees and provide them with favorable working conditions		+		
79	4.	The EP management should demonstrate a change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	The PA should determine the contribution of the PA's teaching staff to the implementation of the PA's development strategy and other strategic documents		+		
81	6.	The public organization should provide opportunities for career growth and professional development of teaching staff of EP		+		
82	7.	The EP management should demonstrate its readiness to attract practitioners from relevant sectors of the economy to teach		+		
83	8.	The public organization must demonstrate motivation for the professional and personal development of teachers of educational institutions, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods		+		
84	9.	An important factor is the willingness to develop academic mobility within the framework of the EP, to attract the best foreign and domestic teachers		+		
Total for the standard			0	8	1	0
Standard "Educational resources and student support systems"						
85	1.	The PA should ensure that there are sufficient training resources and student support services to ensure that the EP		+		
86	2.	The PA must demonstrate the adequacy of material and technical resources and infrastructure, taking into account the needs of different groups of students in the context of EP (adults, working students, foreign students, as well as students with disabilities).		+		

87	3.	The EP management should demonstrate that there are procedures in place to support various groups of students, including informing and advising		+		
		<i>The management of the EP should demonstrate that the information resources correspond to the specifics of the EP, including::</i>		+		
88	4.	technological support for students and teaching staff (for example, online training, modeling, databases, data analysis programs)		+		
89	5.	library resources, including the collection of educational, methodological and scientific literature on general education, basic and profile disciplines on paper and electronic media, periodicals, access to scientific databases			+	
90	6.	examination of research results, graduation papers, dissertations for plagiarism		+		
91	7.	access to educational Internet resources.-internet		+		
92	8.	WI-FI operation on the territory of the educational organization			+	
93	9.	The public organization demonstrates planning for providing the EP with training equipment and software tools similar to those used in the relevant sectors of the economy		+		
Total for the standard			0	7	2	0
Public Awareness Standard						
		<i>The public organization must publish reliable, objective, and up-to-date information about the educational program and its specifics, which should include::</i>				
94	1.	expected learning outcomes of the implemented educational program		+		
95	2.	qualifications and / or qualifications that will be awarded upon completion of the educational program		+		
96	3.	teaching and learning approaches, as well as the assessment system (procedures, methods and forms)		+		
97	4.	information on passing scores and educational opportunities provided to students		+		
98	5.	information on employment opportunities for graduates		+		
99	6.	The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested persons		+		
100	7.	Public awareness should include supporting and explaining the national development programs of the country and the system of higher and postgraduate education		+		
101	8.	The public organization should demonstrate that the web resource reflects information that characterizes it in general and in the context of educational programs		+		
102	9.	An important factor is the availability of adequate and objective information about the PPP of EP		+		
103	10.	An important factor is to inform the public about cooperation and interaction with partners within the framework of the EP		+		
Standard total			0	10	0	0
TOTAL			2	93	8	0

2 (1.9 %) parameters have the "strong" position

93 (90.2 %) parameters have the "satisfactory" position

8 (7.99 %) parameters have the position "suggests improvement"

0 % of the parameters have the "unsatisfactory" position

