



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

*Addressed to the
Accreditation Council of IAAR*

REPORT

on the results of the work of the external expert commission on the assessment of compliance of the following educational programmes with the requirements of the standards of specialised accreditation

6B07105 – “Instrument Engineering” 7M07105 – “Instrument Engineering”

6B07107 – “Transport, Transport Equipment and Technologies”

6B08601 – “Water Resources and Water Consumption”

“D. Serikbayev East Kazakhstan Technical University” NPJSC

from October 06 to October 08, 2020

Nur-Sultan

November 8, 2020

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING
External Expert Commission

*Addressed to the
Accreditation Council of IAAR*



REPORT

on the results of the work of the external expert commission on the assessment of compliance of educational programmes with the requirements of the standards of specialised accreditation

6B07105 – “Instrument Engineering” 7M07105 – “Instrument Engineering”

6B07107 – “Transport, Transport Equipment and Technologies”

6B08601 – “Water Resources and Water Consumption”

“D. Serikbayev East Kazakhstan Technical University” NPJSC

from October 06 to October 08, 2020

Nur-Sultan

November 8, 2020

CONTENTS

(I) LIST OF DEFINITIONS AND ACRONYMS	4
(II) INTRODUCTION.....	5
(III) REPRESENTATION OF THE EDUCATIONAL ORGANISATION	6
(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE	6
(V) DESCRIPTION OF THE EEC VISIT.....	6
(VI) COMPLIANCE WITH SPECIALISED ACCREDITATION STANDARDS.....	7
6.1 Standard "Management of Education Programme "	7
6.2 Standard "Information Management and Reporting"	10
6.3. Standard "Development and Approval of the Educational Programme".....	12
6.4 Standard "On-Going monitoring and Periodic Review of Educational Programmes"	15
6.5 Standard "Student-Centered Learning, Teaching and Performance Evaluation"	17
6.6. Standard "Students"	19
6.7 Standard "Teaching staff"	22
6.8. Standard "Educational resources and student support systems"	25
6.9 Standard "Public Information"	29
6.10 Standard "Standards in the context of individual specialties"	31
(VII) OVERVIEW OF STRENGTHS/BEST PRACTICES FOR EACH STANDARD.....	33
(VIII) OVERVIEW OF RECOMMENDATIONS FOR IMPROVING QUALITY	36
Appendix 1. Evaluation table "PARAMETERS OF A SPECIALISED PROFILE"	37

(I) LIST OF DEFINITIONS AND ACRONYMS

- BD** – Basic Disciplines
BC – Basic Curriculum
CD – Core disciplines
CED – Catalog of Elective Disciplines
CTE – Credit Technology of Education
DP – Documented Procedure
DLT – Distance Learning Technology
EKTU – “D. Serikbayev East Kazakhstan Technical University”, Non-Profit Joint-Stock Company
EKTUI – EKTU Instruction
EKTUR – EKTU Regulation
EMCD – Educational and Methodical Complex of Discipline
EMCU – Educational and Methodical Council of the University
EMW – Educational and Methodical Work
e-LTM – e-Learning Training Materials
EP – Education Program
ESS – Educational Support Staff
F – Faculty
GES – General education subjects
IQM – Internal Quality Monitoring
IC – Individual Curriculum
IDAT – Institute for Development and Advanced Training
IET - Individual Education Trajectory
MES RK – Ministry of Education and Science of the Republic of Kazakhstan
MEP – Modular Education Program
MC – Modular Curriculum
PC – Personal Computer
QMS – Quality Management System
RK – The Republic of Kazakhstan
RW – Research Work
RW and IA - Scientific - Research Work and Innovation Activity
SSRW – Students’ research work
SCES – State Compulsory Educational Standard
SAW – Student Autonomous Work
SAWT– Student Autonomous Work with a Teacher
SAC – State Assessment Committee
UNT – Unified National Testing
WC – Working Curriculum

(II) INTRODUCTION

The external expert commission assessed the compliance of the following educational programs: 6B07105 – “Instrument Engineering” 7M07105 – “Instrument Engineering”, 6B07107 – “Transport, Transport Equipment and Technologies”, 6B08601 – “Water Resources and Water Use” of D. Serikbayev East Kazakhstan Technical University” NPJSC with the requirements of the standards of IAAR specialized accreditation from October 06 to October 08, 2020.

The report of the External Expert Commission (EEC) contains the assessment of the educational programs and the parameters of the educational program profiles of “D. Serikbayev East Kazakhstan Technical University” NPJSC.

The EEC Composition:

Chairman – Urmashev Baidaulet Amantayevich, Ph. D., Associate Professor, Dean of the Faculty of “Information Technologies” of the Al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan)

Foreign expert – Tairov Mitalip Muratovich, Doctor of Physics and Maths, Professor of Batken State University (Kyzyl-Kiya, Kyrgyz Republic)

National expert – Guzeva Tatyana Aleksandrovna, PhD, Associate Professor, Head of the Department of Educational Standards and Programs of the Bauman Moscow State Technical University (Moscow, Russian Federation).

National expert – Musiralieva Shynar Zhenisbekovna, PhD, Associate Professor, Head of the Department of Information Systems of the Al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan)

National expert – Zhumazhanov Serik Karatayevich, PhD, Lecturer of the Department of Electrical Equipment Operation of S. Seifullin Kazakh Agrotechnical University (Nur-Sultan, Republic of Kazakhstan)

National expert – Mukhamedzhanova Rufina Rinatovna, Director of the Department of Academic Affairs of the Almaty University of Power Engineering and Communications (Almaty, Republic of Kazakhstan)

National expert – Tursumbekova Khorlan Sakenovna, PhD, Associate Professor of Goncharov Kazakh Automobile and Road Institute (Almaty, Republic of Kazakhstan)

National expert – Ermanov Maksat Bekbusynovich, Senior lecturer of K. Zhubanov Aktobe Regional State University (Aktobe, Republic of Kazakhstan)

Employer – Pyatkov Nikolay Vladimirovich, Chief Engineer of “Stroytechproekt” LLP (Ust-Kamenogorsk, Republic of Kazakhstan).

Student – Egizbaeva Asylzat Yerkinzy, 4th year student of 6B060101 – “Information Systems” EP of S. Amanzholov East Kazakhstan University (Ust-Kamenogorsk, Republic of Kazakhstan).

Student – Bayantay Meruert Serikzy, 4th year student of 5B090300 EP of S. Seifullin Kazakh Agrotechnical University (Nur-Sultan, Republic of Kazakhstan).

Student – Bazarbek Amre, member of the Alliance of Students of Kazakhstan, 4th year student of 5B070200 – “Automation and Management” EP of L. N. Gumilyov Eurasian National University (Nur-Sultan, Republic of Kazakhstan).

IAAR Coordinator – Niyazova Guliyash Balkenovna, Project Manager for institutional and specialized accreditation of higher education institutions

(III) REPRESENTATION OF THE EDUCATIONAL ORGANISATION

D. Serikbayev East Kazakhstan Technical University keeps pace with the new paradigm of science and technology development.

The mission of the university is to train competitive engineers to work in a global environment.

The university provides training in 117 educational programs at three levels: undergraduate, graduate and postgraduate. The student body is about 6000 people. The priority activity of the university is the training of highly qualified in-demand specialists in the field of metallurgy, mechanical engineering, architecture and civil engineering, information and communication technologies. The University maintains a high standard of higher education. This is evidenced by the fact that 55 educational programs are accredited by foreign and national agencies that have a serious reputation in the global educational space. 6 of them have EUR-ACE certificates.

The international prestige of the university is confirmed by the fact that the university received 3 QS stars (Great Britain) in the framework of the international rating system “QS Stars”. An independent audit recognized the university as “starlight” in terms of the quality of training, employment and innovation. At the request of the university, the QS rating company conducted a benchmarking study, the results of which demonstrated the university position in comparison with fifteen foreign universities, including: National Taiwan University of Science and Technology, University of Tsukuba, Technical University of Braunschweig, Tampere University of Technology, National Research Tomsk Polytechnic University, Belarusian National Technical University, etc.

The university has a developed scientific and innovative infrastructure that unites the Veritas Center of Excellence, centers of competence and new technologies by industry. There are 6 schools and Foundation at the university. The chairs were abolished, and the position of the head of the educational program was introduced.

Quality education is the main goal of the university, so the university attracts the best teachers who bring with them the latest knowledge, research and teaching technologies. The University maintains close links with businesses and professional institutions in order to bring its courses closer to the needs of employers.

(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

The previous accreditation was carried out by the IAAR in the period from 22 to 29 March, 2015. Educational programs were accredited for a period of 5 (five) years. It is important to note that most of the points were fully met by the university, some recommendations are at the stage of implementation.

(V) DESCRIPTION OF THE EEC VISIT

The visit of the external expert commission to “D. Serikbayev East Kazakhstan Technical University” NPJSC was organized in accordance with the program.

The work of the EEC was carried out on the basis of the Audit Program of the External Expert Commission of the IAAR at “D. Serikbayev East Kazakhstan Technical University” NPJSC within the framework of specialized accreditation of educational programs in the period from 06 to 08 October, 2020.

To obtain 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 the Chairman of the Board, Deputy Chairmen of the Board for areas of activity, deans,

heads of structural divisions, heads of departments, teachers, students, graduates, and employers. A total of 117 people took part in the meetings (Table 1).

Table 1 - Information about employees and students who participated in meetings with the IAAR EEC:

Participant categories	Number
Acting Chairman of the Board	1
Vice-rectors	4
Heads of structural divisions	10
Deans of faculties, Heads of chairs	11
Professors	29
Undergraduates, graduates and postgraduates	27
Alumni	19
Employers	16
Total	117

During the tour, the members of the EEC got acquainted with the state of the material and technical base on two routes. In the first route the visual inspection of EO was carried out: the Center for competences and technology transfer in the field of virtual and augmented reality; the Centre for prototyping and complex treatment of metals; Scientific-production center “SAT&M” for certification tests of fuels and oils; the Center for competences and technology transfer in the field of automation and mechatronics; the Center for competences and technology transfer in the field of water management and water use; Center of competencies and technologies in the field of construction.

As part of the second route, the EEC visited the bases of EP practices.: 1C-Rating enterprise; Kazzinc LLP; Azia Avto JSC; Oskemen-Vodokanal; Power Service of Ust-Kamenogorsk Metallurgical Industrial Complex; Silumin Vostok LLP Automation Department; “Ertis Basin Inspection on regulation of use and protection of water resources of the Committee on Water Resources of the Ministry of Agriculture of the Republic of Kazakhstan”; “National Center for Quality of Road Assets in East Kazakhstan region”, Ust-Kamenogorsk.

Within the framework of the visit of the EEC, a visit to the classes of 6B07107 – “Transport, transport equipment and technologies” EP: a lecture in the discipline “Theory of car movement” was organized.

The events planned within the framework of the EEC visit helped to familiarize experts with the university infrastructure, material and technical resources, teaching staff, students, representatives of employers and alumni of the university, which allowed for an independent assessment and development of recommendations for improving the university activity.

(VI) COMPLIANCE WITH SPECIALISED ACCREDITATION STANDARDS

6.1 Standard " Management of Education Programme "

The evidence part

Academic activity of “D. Serikbayev East Kazakhstan Technical University” NPJSC 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 University.

The mission of the university is to create a modern university of international level, provide high-quality and affordable education, train qualified personnel for the innovative

economy of Kazakhstan who are able to implement the knowledge gained in practice and in science.

The mission corresponds to the current management system, the policy in the field of ensuring the quality of education. The basis for determining the mission, goals and objectives for the development of the University was founded on the mission, goals and objectives of the national education system presented in the Laws of RK “On education” and “On science,” “The strategy of industrial-innovative development of Kazakhstan”, and “The strategic plan of MES RK”.

Strategic goal and strategic objectives of the educational program fit the mission of the University determined on the basis of the State Educational Policy of Kazakhstan and the Development Program of the University, and consistent with the goals and objectives of the University.

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

The main methodological documents developed for an EP include: the curriculum; the schedule of EP educational process; working curriculum; educational-methodical complexes of disciplines, including syllabi; catalogue of EP elective subjects. The university provides an annual review of the content of curricula and programs. Evaluation of the effectiveness of the educational process, academic performance, and the quality of knowledge is also carried out in the context of programs.

Undergraduate and graduate degree programs are developed taking into account the needs of interested parties and the credit system of education implemented at the university.

An annual analysis of the existing EPs is carried out in order to adjust them, taking into account the experience of the faculty and the students’ opinion.

For training in all EPs under accreditation there is accessible educational resource environment that includes computers, classrooms, computer classrooms, reading halls, book fund, educational digital materials, etc. Heads of faculty chairs determine the need for equipment, literature and software, files applications for purchase of the required resources. Documents regulating the process of managing educational activities at the chair are formed in accordance with the nomenclature.

The analytical part

IAAR EEC held meetings, talks and interviews with vice-rectors, heads of educational programs, heads of structural divisions, students, faculty, representatives of employers’ organizations and alumni. They also conducted a survey of faculty and students, studied in detail the educational infrastructure of the university, material, technical, information and methodological resources and necessary documents. They note the following:

1. “D. Serikbayev East Kazakhstan Technical University” NPJSC has a published quality assurance policy, in which the interaction between teaching, learning, 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 (<https://www.ektu.kz>).

2. The EP managing staff ensures transparency and collegiality in the development of the EP elaboration 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.

3. Joint activities of schools and practice bases are aimed at ensuring the connection between education and industry. Based on the outcomes of the results of practices, surveys of managers of practice bases, the content of the EPs is systematically updated.

4. The EP managing staff has demonstrated the existence of an internal quality assurance system. The university has a certificate of compliance with the requirements of the standard, as well as internal regulatory documents of the QMS.

5. To maintain the effectiveness of the educational programs further improve the content of the EPs (development of elective disciplines, improving the practical component tailored to

the needs of the market) is being further improved. It involves the development of the modular principle of the formation of an EP; the improvement of educational-methodical complexes of an EP and disciplines based on the National Qualifications Framework taking into account the Dublin Descriptors and the European Qualifications Framework; development and improvement of students' individual plans, etc., which is reflected in the Development Plans of educational programs. Means of collecting, storing and analyzing information about the implementation of educational programs at "D. Serikbayev East Kazakhstan Technical University" NPJSC, its internal and external environment are the mechanism for social monitoring at the University; meetings of the University management with students; the study of written appeals of students to the University administration; the University website, including the blog of the Chairman of the Board and the book of complaints; student surveys.

6. Despite the fact that the EP heads demonstrated innovation management within the framework of the EPs, the commission nevertheless concluded that the analysis and implementation of innovative proposals from stakeholders in recent years should be improved.

7. It is necessary to consider the possibility of training the heads of the OPs in educational management.

8. The survey of the faculty conducted during the visit of the IAAR EEC showed that:

- the **reflection of the mission and strategy of the university in innovative programs is:** very good-37.8%; good-54.1%, relatively bad-5.4%, bad-2.7%;

- **the faculty satisfaction with the content of OP is:** very good-43.2%, good-51.4%, relatively bad-2.7%, very bad – 2.7%;

- **the involvement of the faculty in the process of making managerial and strategic decisions is:** very good-18.9%, good-43.2%, relatively bad-29.7%, bad-2.7%, very bad-5.4%;

- **the availability of necessary scientific and educational literature in the library is:** very good-45.9%, good-54.1%;

- **the teachers' ability to use their own methods is:** very good-62.2%, good-35.1%, 2.7%.

For the full implementation of this standard, in particular, when forming a quality system, the university must identify possible risks and opportunities. The heads of the EPs does not fully disclose the risks to which the implemented EPs may be exposed. Awareness of the risks could serve as a basis for developing a "risk-based approach" and taking measures to counter them. Following the risk-based thinking can help the university to create a corporate culture of the University that is proactive and preventative, aimed at doing better, and improving the performance of work in general.

satisfactory aspects

- There is a published quality policy that reflects the relationship between teaching and learning, but requires a link to scientific research as well;

- Transparency in the elaboration of the development plan and the EP management system;

- The university demonstrates the definition of those responsible for business processes, the distribution of job responsibilities of the personnel, the differentiation of the functions of collegial bodies involved in the implementation of the EPs. The departments annually distribute the job responsibilities of the personnel involved in the implementation of the EPs, such as those responsible for research, supervision, professional development, educational and methodological work, career guidance, practice, employment, etc. Functional responsibilities of the chairs are discussed at meetings of the department.

- Openness and accessibility of the EP manuals for students, teaching staff, employers and other interested people.

The following positions are available for educational programs:

Strengths/best practices

The university has a published quality assurance policy. The quality assurance policy reflects the relationship between research, teaching and learning;

EP management strives to ensure that progress made since the last external quality assurance procedure is taken into account in preparation for the next procedure.

The heads of 6B07105, 7M07105 (5B071600, 6M071600) EPs – “Instrument Engineering” have developed unique bachelor’s and master’s degree courses that meet modern trends and organized double-degree education.

Suggested for improvement:

To provide training of EP heads in education management.

The recommendations of the WEC

- Improve the relationship between research, learning and teaching;
- Ensure the involvement of various employers in the process of forming educational programs;
- Consider the development of plans for updating the material and technical resources including the equipping of specialized laboratories for accredited educational programs
- Consider the possibility of training EP heads in education management.

Conclusions of the EEC according to the Standard "Management of Education Programme": Educational programmes 6B07105 – “Instrument engineering”, 7M07105 – “Instrument engineering”, 6B07105 – “Transport, transport equipment and technologies” have: strong – 3, satisfactory – 13, suggesting improvement – 1, unsatisfactory – 0 positions of the organization of education;

Educational programme 6B08601 – “Water resources and water consumption” have strong - 1, satisfactory – 16, suggesting improvement – 0, unsatisfactory - 0 positions of the organization of education.

6.2 Standard “Information Management and Reporting”

The evidence part

Information collection, analysis and management systems at D. Serikbayev East Kazakhstan Technical University are an integral part of the system of planning, financial activities, process approach, and management of individual educational programs.

Supervising chairs collect information to ensure a competitive advantage in the market, as well as to find ways to cooperate with possible competitors.

The University ensures transparency of information about the quality audit processes of education and their results, as well as identifies the status of the results of measurement and analysis of processes. The procedure for managing records (identification, storage, protection, access, terms of use, location) has been established. The university management and collegial governing bodies – the Academic Council, the Educational and Methodological Council, etc. make decisions based on facts, analysis of information from structural divisions, data obtained from questionnaires, monitoring of the educational process and other sources.

The heads of the EPs analyze the external and internal environment and, in particular: the material and technical base, staffing, the level of development of social partnership, international cooperation, career guidance and recruitment, the competitive environment and employment, etc. According to the analysis of results decisions on personnel issues, career guidance, the development of material-technical base, on changes and additions to the development plan of EPs are made.

The scientific library has access to databases of the Republican Interuniversity Electronic Library, the Kazakhstan National Electronic Library.

Researchers, faculty and students have open access to the collections of scientific literature. Students can take necessary literature in the lending library of scientific literature,

study in all reading rooms. Individual copies of publications can be ordered through the book storage system. This is especially important for students of graduate programs.

The main link of the system of collecting and analyzing information is the faculty and staff of the university. They develop all the university and EP documentation, organize the activity of collegial bodies, involve interested people in the management of the university, study the external and internal environment, and much more, which requires high professional and communicative qualities.

The analytical part

The analysis of accredited EPs according to this standard allows us to draw the following conclusions:

1. The university has a system for collecting, analyzing and managing information based on the use of ICT and monitoring the recruitment of students, academic performance, flow of the employees, personnel, faculty and students academic mobility, etc., which is presented in regular reports at chair, rectorate and the Academic Council meetings.

2. EP heads, faculty and students are engaged in the collection and analysis of information for the effective implementation of process management, which are reflected in the data of the automated information system and documented in the division records.

3. EP heads demonstrated ensuring the protection of information, including appointing the responsible for the accuracy and timeliness of the analysis. The responsible people are regulated by the internal procedures and corporate regulations

4. Information analyzed by the EP heads takes into account the availability of educational resources and support systems for students. There are social networks, etc., and also access to Wi-Fi at the university.

5. A survey of students conducted during the IAAR EEC visit showed the following level of satisfaction of students with the university:

- **by the level of accessibility and responsiveness of the university management:** fully satisfied-66.7%, partially satisfied-27.3%, difficult to answer-6.1%;

- **by the usefulness of the website of the educational organization in general and faculties in particular:** fully satisfied-66.7%, partially satisfied-30.3%, I find it difficult to answer-3%;

-**by being informed about the requirements in order to successfully complete the course:** fully satisfied-78.8%, partially satisfied-18.2%, difficult to answer-3%.

Analyzing the EPs by the content and semantic load of the “Information Management and Reporting” Standard in accredited areas, the commission notes that the university has a system for managing information and reporting on student recruitment, academic performance, faculty and student flow, personnel, which is presented in regular reports at meetings of chairss, the rectorate and the Academic Council of the University. A regular survey of students is conducted and appropriate measures are taken to eliminate shortcomings based on the results of their survey/interviewing.

Strengths/best practices

The university ensures the functioning of the information collection, analysis and management system based on the use of modern information and communication technologies and software;

The university demonstrated the definition of the procedure and ensuring the protection of information, including the identification of people responsible for the reliability and timeliness of information analysis and data provision;

The information collected and analyzed by the university takes into account the availability of educational resources and support systems for students:
<https://www.ektu.kz/student/graduate.aspx?lang=ru>.

There is a successfully functioning information flow management system based on modern information and communication technologies which takes into account the structure of the organization and the analyzed indicators.

The information platform takes into account the detailed study of the responsible staff and their functions, as well as the consistent relationship between the participants of business processes.

The key indicators to be analyzed are clearly identified and mechanisms for their formation are created.

EEC recommendations

- Step up efforts to involve all categories of stakeholders: students, employers, faculty and staff in the process of collecting and analyzing information, as well as making decisions based on it.
- Update information about the EPs on the website in three languages on a regular basis.
- According to the satisfaction of students with the implementation of the EPs and the quality of training at the university, it is necessary to improve the quality of training in undergraduate educational programs.

The conclusions of the EEC according to the “Information management and reporting” Standard:

- ***educational programs 6B07105 - "Instrument Engineering" 7M07105 - "Instrument Engineering", 6B07107 - "Transport, transport equipment and technologies" have strong - 3, satisfactory - 14, suggesting improvement - 0, unsatisfactory - 0 positions of the educational organization;***
- ***the educational program 6B08601 - "Water resources and water consumption" have strong - 2, satisfactory - 15, suggesting improvement - 0, unsatisfactory - 0 positions of the organization of education***

6.3. Standard “Development and Approval of the Educational Programme”

The evidence part

The process and procedure for the development and approval of accredited bachelor's and master's degree programs is carried out in accordance with the requirements of the SES. At the same time, all the relevant bodies of the university, students, faculty, chairs, departments, etc. are involved. Implementation mechanisms are open and transparent, decision – making is collegial. The scientific level and goals of the EPs 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 have been developed in accordance with the regulatory documents, but the actions of the possibility of joint EPs with foreign educational organizations and the involvement of Kazakh research organizations in the educational process have not been demonstrated.

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

When developing the EPs, its focus on training a specialist who meets modern requirements is taken into account: competitiveness, functional literacy, competence (subject, professional, information, etc.). The cycle of general education disciplines is aimed at developing the general intellectual level. Cycles of majors aimed at the formation of the subject, professional competence, development of creative potential, enhance the competitiveness of the

graduates abilities based on the knowledge, skills, and personal qualities to successfully carry out their professional activities.

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

The graduate model is presented for all accredited programs, it is developed by the major chair on the basis of established traditions and approved by the rector of the university. The competence model of a graduate of the accredited educational institution is a set of expected educational results, the achievement of which can be demonstrated by the student at a particular stage of mastering the main program.

The list of disciplines included in the EPs is brought to the attention of students. First-year students are given presentations of the EP by the adviser at the beginning of training (September), senior students are given presentations of the EP at the beginning of the second semester for the next academic year. Based on the students' choice of the learning path, IC (individual curriculum for each year of study) is developed. The IC indicates the subjects studied, the number of credits, the semester and the full name of the teacher. Students sign the IC, which is submitted in 3 copies (to the student, the chair and the registrar's office).

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

The disciplines included in the Bachelor's degree program that determine the subject and professional training of a graduate can be divided into cycles:

- the disciplines that form the core knowledge and competencies;
- the disciplines that form professional knowledge and competencies.

Taking into account the opinion of employers, the analysis of the progress and results of field practice, the results of the SAC, changes are made to the structure and content of the CED.

An EP includes taking professional practice in accordance with the schedule, in agreement with the bases of practices, taking into account the availability of appropriate material resources and the qualifications of the heads of practices.

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

During the implementation of educational disciplines the faculty of accredited EPs use traditional and interactive approaches and methods of teaching.

For the EPs 6B07105, 7M07105 – “Instrument engineering”: The documentation of the EPs is elaborated in detail, taking into account the specifics of training students, there is also the presence of the uniqueness of the EP and specialized training of students for a specific employer. The Heads of the EPs 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 EPs submitted for consideration are annually evaluated by accreditation organizations, they often win prizes. In addition, the assessment is made by employers, partner universities implementing joint training of specialists. On the basis of large partner enterprises, students receive additional training on the types of work performed for subsequent employment without loss of time; at medium and small partner organizations interns perform certain types (work) services, depending on the level of admission, which are implemented at the time of internship. The university demonstrated the ability to develop in detail the content of the EP and organize the training of students, with the final result in the form of implemented double-degree education with foreign partner universities.

The analytical part

1. The heads of the EPs document the procedures for the development of the EP and their approval at the institutional level. This is evidenced by the fact that the EP is considered and

discussed at meetings of the chair, agreed with employers. The final approval of the EP takes place at the Academic Council of the University.

During the visit of the EEC, the heads of the EPs did not demonstrate the issue of joint EP forming basic knowledge and competencies (according to EP 6B07107 - "Transport, transport equipment and technologies", 6B08601 –"Water resources and water consumption") with foreign educational organizations and involvement of Kazakhstani research organizations in the educational process.

2. Students, highly qualified faculty of accredited EP and stakeholders take part in the development of the EP.

3. Professional field practice is organized in accordance with the regulations on the organization of professional practices.

4. The management of the EP showed that the developed model of a graduate characterizes a specialist who is able to perform professional functions and specific duties, who is able to successfully interact with people and strives for self-improvement. The competence model of the graduate becomes the basis for designing the educational process in the form of a model for training a bachelor's degree specialist.

5. The survey of students conducted during the visit of the IAAR EEC showed that:

– **the level of implementation of these rules and strategies of the EP:** fully satisfied-66.7%, partially satisfied-30.3%, difficult to answer-3%

- **informing students about courses, educational programs and academic degrees:** fully satisfied-75.8%, partially satisfied-24.2%.

The logical conclusion of training in educational programs is the final certification. It is noted that the materials of final exams are reviewed annually when new priorities in the development of science and education arise, and in connection with the improvement of technologies, new teaching methods, and the development of fundamental research in science.

When implementing educational programs, the necessary integrity is ensured, combining the required ratio between the theoretical and practical components of the educational process. It is necessary to emphasize that the content of all types of practice and materials of final exams are aimed at achieving the goals of the EP and the acquisition of professional and general cultural competencies by students.

Strengths/best practices

The university at the proper level defines and documents the procedures for the development of EPs and their approval at the institutional level;

The heads of the EPs have ensured that the developed EPs meet the established goals, including the expected learning outcomes;

The heads of the EPs ensure the availability of developed models of the graduates of the EPs, describing the results of training and personal qualities

The heads of the EPs demonstrated the conduct of external examinations of the EPs.

The EP heads determined the influence of disciplines and professional practices on the formation of learning outcomes

The heads of the EPs provide the content of academic disciplines and results of training at the level of training (bachelor's, master's, doctoral studies).

All EPs under consideration are annually evaluated by accreditation organizations, often win prizes. In addition, the assessment is made by employers, partner universities implementing joint training of specialists.

On the basis of large partner enterprises, students receive additional training on the types of work performed for subsequent employment without loss of time, at medium and small partner organizations, interns perform certain types (work) services, depending on the level of admission, which are implemented at the time of internship.

The university is able to develop in detail the content of the EPs and organize the training of students, with the final result in the form of implemented double-degree education with foreign partner universities.

Suggested improvements:

Provide measures to prepare students for professional certification within the framework of accredited programs

The recommendations of the EEC

- Consider the development of joint educational programs with national and foreign educational organizations;
- Develop a plan to attract faculty of national universities and foreign educational organizations to conduct joint scientific case studies.
- Include in the development plans of the EP an analysis of the effectiveness and concretize cooperation with foreign educational organizations.
- Develop and implement a plan to introduce elements of dual training.

Conclusions of the EEC according to the standard "Development and approval of the educational programme"

The educational programmes 6B07105 - "Instrument engineering" 7M07105 - "Instrument engineering" have strong - 6, satisfactory – 6, suggesting improvement – 0, unsatisfactory - 0 positions of the educational organisation;

the educational programme 6B07107 - "Transport, transport equipment and technologies" has strong - 6, satisfactory - 5, suggesting to improve - 1 positions of the organization of education;

the educational program 6B08601 - "Water resources and water consumption" have strong - 2, satisfactory – 9, suggesting improvement – 1, unsatisfactory - 0 positions of the organization of education.

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

The evidence part

The analysis of the effectiveness of accredited EPs is carried out during the entire period of their implementation. In the process of conducting professional field practice, the quality of EP is evaluated from the standpoint of the level of mastering theoretical knowledge and skills for its application in the conditions of an educational institution at the place of practice. The main evaluation factors are reviews of the managers of the practice bases and reports of students on the results of the internship, reviews of external reviewers for final works. The features and significance of the modern structure of education and the updated system of monitoring the achievements of students are considered. The methodology of criteria-based assessment organizations and active training methods are included in the EMCD.

The achievement of the goals of the EPs is also monitored by the results of rating, current control, the results of state exams and the defense of theses by graduates.

The progress of students is analyzed according to the results of control, which is recorded in the rating and examination sheets and test books, transcripts issued by the registrar office. All data on the progress of students is stored and processed in the database of the registrar office. The workload of students is determined in accordance with regulatory documents.

Changes in the labor market are associated with the reform of education, updating its content. According to the normative documents, most of the EP disciplines are elective. The CED offers a choice of two or three disciplines for each component. However, the content of some disciplines requires updating.

Employers, teaching staff and students participate in the development and revision of the EPs, but it is necessary to expand the number of employers involved in the development and revision of the EPs. Monitoring the effectiveness of the EPs includes the following assessments:

internal (mutual visits and surveys of faculty, student interviews) and external (reviews of supervisors of professional practice, presiding over the final certification of graduates, reviewers of master's theses).

In this regard, the practice of collective discussion of the recommendations made, which serve as a basis for taking corrective actions, is well established. Official assessments of external experts are supplemented by the results of sociological surveys of heads of organizations that employ university graduates.

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

The analytical part

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

1. The heads of the EPs monitor and periodically evaluate the EPs in order to ensure that the goal is achieved and meets the needs of students and society. This is evidenced by the fact that the MC is regularly updated not only structurally, but also in terms of content, while the requirements of the labor market, employers, students, faculty and SAC chairmen are taken into account when developing elective courses, developing the content of the professional practice program and choosing the topic of graduation papers. The analysis of the effectiveness of accredited EPs is carried out during the entire period of their implementation.

2. The analysis of development plans of the accredited EPs showed that the preparation of bachelors and masters is realized, subject to authorial and collective scientific and educational achievements, requirements of employers, labour market and development of state programs of Kazakhstan. The experts note that the revision of the content of MC and CED takes place annually, taking into account the requirements of the market and the wishes of students and employers.

3. The heads of the EPs inform interested parties about all changes made to the EP.

4. Assessment and determination of expectations, needs, satisfaction of students and market requirements is carried out on the basis of questionnaires of students and employers.

5. The survey of students conducted during the visit of the IAAR EEC showed that –
- **the course program was clearly presented:** fully agree - 48.5%, agree - 48.5%, partially agree - 1%.

- **the course content is well structured:** fully agree - 51.5%, agree - 36.4%, partially agree - 9.1%.

In the development plans of the EPs, there is no mechanism for analyzing the identified inconsistencies and implementing corrective and preventive actions. In the chair meetings minutes there is no analysis of the effectiveness of changes made to the EPs on the proposals of employers and students.

Employers and students participate in the development of the educational program, but are not included in the collective management bodies. This complicates the management mechanism of the educational programs.

Strengths/best practices

Constant monitoring of the content of educational programs in the light of the latest scientific achievements in a particular discipline is carried out to ensure the relevance of the taught discipline;

To expand the competitiveness and increase the number of training paths for EP 6B07105, 7M07105 - "Instrument Engineering", a unique EP was developed at the junction of various areas of medicine and instrument engineering, confirming the high qualification of EP

heads in this area and the ability of the university base to prepare the foundation for providing a new training program.

The recommendations of the EEC

- post all necessary information on the university website in a timely manner.
- develop criteria for evaluating all types of educational activities of students (practice, laboratory work, all types of autonomous work of students).

The conclusions of the EEC according to the standard "On-Going monitoring and Periodic Review of Educational Programmes"

- educational programmes 6B07105 - "Instrument engineering" 7M07105 - "Instrument engineering", 6B07107 - "Transport, transport equipment and technologies" have strong - 1, satisfactory - 9, suggesting improvement - 0, unsatisfactory - 0 positions of the organization of education;

- educational programme 6B08601 - "Water resources and water consumption" have strong - 0, satisfactory - 10, suggesting improvement - 0, unsatisfactory - 0 positions of the organization of education.

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

The evidence part

"D. Serikbayev East Kazakhstan Technical University" NPJSC implements a system of student-centered training, 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 a facilitator, the responsibility for learning is shared, 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 distribution of places in the dormitory, in the organization and control of examination sessions, participation in meetings of collegial bodies of the university - the Academic Council, the Educational and Methodological Council, etc.

The EP heads adhere to the principle of equal rights for all categories of students in accordance with international documents. The university uses distance learning to fully ensure the organization of the educational process. Students with disabilities have access to an electronic library, EMCD, access to a network educational and information fund with various educational and methodological materials.

The heads of the EPs provide equal opportunities for students, regardless of the language of instruction, to form an individual educational program. The 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 IET, develop the ability to independently solve problems in the field of professional activity, form the experience of independently solving cognitive, communicative, organizational and other problems in future professional activity.

The Office of the Registrar of the University, together with the advisors, registers students in the disciplines and forms their individual curricula.

Personal development of students, their creative abilities and social competences are also formed in the social life of the university (for example, curatorial meetings, clubs, sections).

At the chair, the necessary work is carried out to prepare students for the implementation of master's works: every year, students choose topics that are interesting to them and correspond to their profile profession. The topics of the research work, scientific supervisors and reviewers are approved by the order of the rector. They differ in relevance, 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 at lectures, within the ASW students independently studies all the topics and sections of the discipline using the main and additional literature. At the SAWT classes consultations and control of material

assimilation are carried out, points of current control are issued. Tasks for the ASW are contained in the EMCD.

Practical training by students is an important part of the educational process. The professional growth of students as future competitive specialists depends on the effectiveness of the organization and consistency of all levels of practice. Each stage of practice completes the training in the corresponding course and serves as the basis for the student's transition to the next level of training.

Monitoring of satisfaction 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 of specialists, it is necessary to bring theoretical knowledge as close as possible to practice, to supplement the list of elective disciplines.

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, by writing to the rector's blog, in the boxes for applications, by calling the helpline, by contacting the chair management directly.

First-year student, and student-intern surveys allow you to constantly conduct appropriate monitoring. In the surveys, students can express their suggestions and comments on such issues as specialization, disciplines studied, organization and conduct of practice.

Monitoring and evaluation of student knowledge is carried out in accordance with the "Regulation on monitoring and evaluation of students' academic achievements". It defines the methods and means of control, regulates the procedure for preparation, organization and conduct, defines the duties of the service representative and participants.

The principle of systematicity lies in the need for monitoring and evaluation of activities (current control, mid-term control, exam) and the results of students at all stages of studying the discipline. The systematicity also is in the fact that all students are regularly evaluated.

The principle of transparency (publicity) consists, first of all, in conducting open tests of all trainees according to the same criteria. The rating of each student, established in the process of diagnosis, is visible. The principle of transparency also requires the disclosure and motivation of assessments. A necessary condition for the implementation of the principle is the announcement of the results of control, discussion and analysis.

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 of employers, graduates, etc.

Students who have fully completed the educational process in accordance with the requirements of the working and individual curriculum, and working curricula are allowed to complete the final certification.

There is also a system of measures to prevent and eliminate academic backlogs to help students. During the semester, advisors and curators constantly monitor the attendance and academic performance of students. Meetings and curatorial hours are held to explain to students the rules for eliminating academic backlogs.

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

The analytical part

However, the Committee notes that the following issues regarding this standard are not fully reflected in the self-report and were not confirmed during the visit of the EEC.

1. During the visit of the EEC, it was noted that there is an impetus for the introduction of modern technologies and techniques, but the faculty is recommended to conduct their own research in the field of teaching methods of special (technical) disciplines within the framework of the EP.

2. An important factor is the presence of a dual degree education, so it is necessary to find a partner university and implement a dual degree education.

3. The heads of the EPs should organise professional development courses regularly

4. The survey of students conducted during the visit of the IAAR EEC showed that students evaluate:

- **objectivity and fairness of teachers:** fully satisfied - 75.8%, partially satisfied - 24.2%

- **quick response to feedback from teachers regarding the educational process:** fully satisfied - 72.7%, partially satisfied - 24.3%, partially dissatisfied – 3%.

- **the teacher objectively evaluates the achievements of students:** fully agree - 66.7%, agree - 30.3%, partially agree - 3%.

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

6B07107 - "Transport, transport equipment and technologies" has the following positions:

Strength/Best practice

The heads of the EP demonstrated the existence of a procedure for responding to complaints of students.

The recommendations of the EEC:

- Improve the availability of feedback on the use of various teaching methods and evaluation of learning outcomes.
- Develop and implement own methodological research (for example, in the form of teaching aids) in the field of teaching elective and other disciplines of the EP.
- Consider the possibility of implementing dual degree education in all educational programs of the cluster
- Conduct own research in the field of methods of teaching special (technical) disciplines within the framework of the EP.
- Organize regular training in higher school pedagogy and methods of teaching technical disciplines.

Conclusions of the EEC according to the Standard "Student-centered learning, teaching and performance evaluation"

for educational programmes 6B07105 - "Instrument Engineering" 7M07105 – "Instrument Engineering", 6B08601 – "Water resources and water consumption": strong – 0, satisfactory – 10, suggesting improvement – 0, unsatisfactory - 0 positions of the educational organization;

for the educational programme 6B07107 - "Transport, transport equipment and technologies": strong - 1, satisfactory - 9, suggesting improvement - 0 positions of the organization of education.

6.6. Standard « Students »

The evidence part

The policy of forming a contingent of students includes vocational guidance work during the year, direct work of the university admissions committee in the summer, management of the movement of the contingent in the process of training and graduation. The contingent formation policy is governed by the "Regulations on the formation of the students' contingent" includes the order of contingent planning; student enrollment; contingent movements; deductions of students; granting academic leave; monitoring, and analysis.

Table 2 shows the Contingent of students, master's degree and doctoral students of EP 6B07107 – “Transport, Transport Equipment and Technologies” for the last 3 years in the full-time department.

Table 2 Contingent of students

	Specialty	2017-2018 academic year	2018-2019 academic year	2019-2020 academic year
	6B07107 - «Transport, Transport Equipment and Technologies»	Bachelor's program		
		188	216	171
		Magistracy		
		13	27	19
		Doctoral program		
		-	-	-

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 the “Provision on Academic Mobility”. In order to guarantee proper recognition procedures, the University ensures that its actions comply with the Lisbon Recognition Convention, which means no discrimination on any grounds is allowed, the procedures and criteria used in the assessment and recognition of qualifications are open, consistent and reliable, all required information is provided upon request, etc.

Participation in public life allows students to develop patriotism, civic and professional competencies. Many students are engaged in social work, in scientific circles, clubs, youth associations, etc. Social activity of students positively affects the quality of development of educational programs and personal learning outcomes.

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

A system of motivation for attracting students to research work has been formed. Students participate in students' conferences, round tables, etc. They are awarded with diplomas, certificates, letters of thanks and valuable gifts.

Table 3 Information on employment of graduates

EP 6B07107 - «Transport, Transport Equipment and Technologies»			
	Total graduates, number	Number of employed graduates	Number of employed graduates, %%
2017-2018 academic year	41	39	95,1
2018-2019 academic year	85	84	98,8
2019-2020 academic year	54	52	96,3

The University has created a mechanism for monitoring the satisfaction of students with the activities of the university as a whole and the quality of the educational services provided. Participating in sociological surveys, representatives of students selected from a representative sample give their assessment of the educational system used at the university; material and technical and sanitary and hygienic conditions of the educational process; its educational, methodological and information technology provision; the effectiveness of the forms and procedures used in it for conducting training sessions and monitoring educational achievements; the state of its social infrastructure (quality of work of university cafes, canteens and canteens; medical care, etc.). In particular, the students made various suggestions for improving the

schedule; providing trainees and teachers with free Internet access, etc. The University administration took measures to create a zone of wireless Internet access, installed terminals, strengthened control over the work of the dispatch service, and introduced an electronic timetable. Accordingly, the number of such claims was either reduced to zero at all, or significantly decreased.

There is a system of motivation for gifted students who have distinguished themselves in studies and SSRW are recommended for receiving personal scholarships (named after the First President of the Republic of Kazakhstan). The best students are awarded with certificates of honor, letters of thanks, mementos, and are encouraged by a prize. The University administration constantly provides material support to gifted students in trips to conferences, Olympiads, sports events.

The analytical part

The analysis of accredited Educational program 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. To increase the number of applications for admission from applicants, the University conducts active professional orientation work with graduates of schools in the regions of the RK.

According to the Educational program "Water Resources and Water Use", the head of the EP was unable to demonstrate the policy of forming a contingent of students. There is an annual decline in the contingent. When discussing the issue of the contingent of students in this educational program with all stakeholders (employers, students, teachers), the solution to the issue was not demonstrated, the mechanism for managing this risk was not disclosed. At the same time, employers feel a large shortage of personnel for the EP "Water Resources and Water Use".

2. The management of the EP demonstrated the system of feedback and support of students operating from the moment of admission to the university. Experts note that the work of advisors, curators, deans, Office Registrar, Student Service Center, Center of the Bologna Process, Student Government, etc. is aimed at successfully adapting yesterday's students to the higher education system and solving emerging issues.

3. The management of the EP demonstrated the implementation of special adaptation and support programs for newly enrolled and foreign students. Experts note that admission and enrollment to the EP are accompanied by an introductory course containing information about the university and the specifics of the EP. Students of the 1st year are given a reference guide, which contains all the necessary information. Foreign students, in addition to educational services and paperwork, are provided with assistance and support in adapting to the new educational and socio-cultural environment.

4. The management of the EP demonstrated the work on the employment of graduates.

5. A survey of students conducted during the visit to the National Academy of Sciences showed that students evaluate:

- the organization of education provides sufficient opportunities for sports and other leisure activities: full agreement – 69.7%, agree – 21.2%, partially agree – 12.1%, complete disagreement - 3%.

- availability of advice on personal problems: fully satisfied-66.3%, partially satisfied-20.9%, partially dissatisfied-3%, difficult to answer-6.1%

- availability for academic counseling: fully satisfied-72.7%, partially satisfied-27.3%.

The materials of the report say about the adaptation of students, however, there are no specially developed programs for adaptation and support of incoming students at the accredited EP.

The purpose of uniting alumni is to develop partnerships between alumni and preserve the unity of values and interests. The reports indicate that a community group is functioning.

It is supposed to improve:

- providing opportunities for internal and external mobility of EP students, and assist them in obtaining external grants for training.

The EEC recommendations

- to increase the percentage of students involved in research work, with the development of a mechanism to stimulate them;
- to introduce a set of measures to prepare students for the transition to multilingual education;
- to contribute to informing students about the possibilities of external and internal mobility for students;
- to promote an increase in the number of students with experience of academic mobility;
- to provide an opportunity for professional certification of students;
- to expand the possibility of academic mobility of students at the bachelor's level;
- to introduce training courses that form students' competencies aimed at quick employment and career development;
- to hold a number of round tables with graduates of recent years to exchange experience and popularize the EP;
- to attract employers and graduates to conduct master classes on career development.

Within the framework of the Educational program “Water resources and water use”, the head of the Educational program, together with the University management and all interested parties (employers, etc.), should develop a mechanism for managing the risk of “annual reduction of the contingent”.

Conclusions of the EEC according to the "Students" standard on Educational programmes 6B07105 - “Instrument Engineering” 7M07105 - “Instrument Engineering”, 6B07107 – “Transport, Transport Equipment and Technologies” have strong - 0, satisfactory - 11, suggesting improvement - 1 positions in the Organization of Education;

according to the Educational programme 6B08601 – “Water resources and water use” have strong - 0, satisfactory - 12, suggesting improvement - 0, unsatisfactory - 0 positions in the Organization of Education.

6.7 Standard "Teaching staff"

The evidence part

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

The recruitment and assessment of teaching staff is carried out on the basis of the Rules for the competitive filling of positions of teaching staff and research workers of universities, developed by the University. Persons wishing to participate in the competition submit applications with the attachment of the relevant documents. To ensure effective recruiting of scientific and pedagogical personnel, the university provides an opportunity to engage in scientific work, differentiated wages. The competition for filling positions of teaching staff is carried out on the basis of an analytical generalization of the results of the activities of applicants in the form of testing, interviews, creative reports, while knowledge was tested in accordance with typical qualification characteristics for each position to determine the level of professionalism. During the competition, the developed map of the QMS process "Conducting a competition for the filling of positions of scientific and pedagogical personnel" is used.

Staffing according to the staffing schedule is 100%. The website of the University provides

information about the heads of structural divisions with telephone numbers and e-mail addresses, and provides feedback. Interested persons can get information about the qualifications of the teaching staff on the University website, where data on lecturers, advanced training, a list of major works, a list of subjects read are presented. In addition, a site visitor can write his question or proposal to the teaching staff on the personal page of scientists.

Table 4 The Faculty

EP 6B07107 – “Transport, Transport Equipment and Technologies”					
	In total	Faculty with a scientific degree, %	Doctors of sciences	Candidates of sciences and PhD	Faculty without a scientific degree
2017-2018	48	58,3	1	27	20
2018-2019	61	52,5	1	31	29
2019-2020	57	54,4	1	30	26

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

Increased attention is required by the use of technical means of teaching, visibility, illustrative material; the use of interactive teaching methods in combination with traditional ones in the classroom.

The Faculty according to scientific and pedagogical qualifications conducts research work and prepares students and undergraduates to participate in scientific seminars, conferences, etc.

Planning of educational activities of teaching staff is carried out on the basis of the Rules of organization of the educational process on credit technology of training. MES RK Order # 152 dated 20.04.2011 (with amendments and additions dated 28.01.2016 # 90 and in October 2018), as well as "Time standards for types of academic work and control measures" approved by the Academic Council of the University. Planning of teaching activities of teaching staff is carried out in the following areas, which are reflected in the "Individual work plan of the teacher": educational work; educational and methodological work; research, which includes research and development; organizational and methodological work; social and educational work; professional development.

Individual academic load of the teacher is carried out on the basis of calculation of hours in the disciplines of the department. The average academic load of teaching staff at the University for the 2019-2020 is 700 hours (15.5 credits).

The Faculty of accredited EP annually takes part in various conferences of international and national significance. The Faculty publishes the articles in the journals recommended by Committee for Control in Education Sphere and Science of MES RK as well.

Table 5. Total number of scientific articles during 2017, 2018, 2019 on 6B07107 – “Transport, Transport Equipment and Technologies”

	Name	2017	2018	2019
Teaching staff				
	In journals recommended by the Control Committee in the Education and Science Sphere of the Education and Science Ministry of Kazakhstan	14	9	3
	In foreign scientific journals and conference proceedings	4	4	4
	In journals with a non-zero impact factor included in the Kazakhstan citation base, the RSCI base	1	0	2
	In journals with impact factor included in the international databases Thomson Reuters, Scopus	4	2	5

Students				
	In journals recommended by the Control Committee in the Education and Science Sphere of the Education and Science Ministry of Kazakhstan	0	2	0
	In foreign scientific journals and conference proceedings	0	0	0
	In journals with a non-zero impact factor included in the Kazakhstan citation base, the RSCI base	0	0	0
	In journals with impact factor included in the international databases Thomson Reuters, Scopus	0	0	0

The Commission notes the active work of teaching staff on professional development in Kazakhstan and abroad.

Teaching staff participates in the development of a database of test tasks; conducting an external assessment of educational activities of universities; preparing expert opinions on the quality of dissertation research, textbooks, scientific monographs; subject Olympiads for students in specialties, and also actively participate in research and development. In addition, the faculty is active in public activities, as evidenced by a large number of awards, letters of thanks, diplomas, prizes, etc.

The University has a Regulation on the Procedure for awarding bonuses and providing one-time financial assistance to University employees.

The analytical part

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

1. The University has an objective and transparent personnel policy. Experts note that the Teaching Staff of the EP is completed in accordance with the legislation and Rules of competitive replacement of scientific and pedagogical staff of higher educational institutions.

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

3. The management of the EP demonstrates an awareness of responsibility for its employees. So, during the conversation with the members of the EEC, instructors gave specific examples of their management's concern for their well-being: the allocation of prizes, awarding certificates, letters of thanks, etc. for achievements in educational, methodological and research activities or for the anniversary, etc.

3. The management of the EP involves practitioners of the relevant industries in teaching. The Commission notes the annual involvement of practical teachers in conducting classes.

4. The University has demonstrated the motivation of professional and personal development of the Faculty of EP. This is evidenced by the University's rating of each teacher by various coefficients in the form of points.

5. The EEC notes the high research and publication activity of the faculty.

6. The EEC notes that the work on academic mobility of teaching staff (external and internal) within the framework of the EP should be intensified.

7. The results of the survey of the teaching staff of accredited EP showed that

- **the University provides an opportunity for continuous development of the potential of teaching staff:** very good-24.3%, good-45.9%, relatively bad-16.2%, bad-13.5%.

- **promotion of innovation activity of TS:** very good-18.9%, good-51.4%, relatively bad-18.9%, bad-10.8%.

- **stimulation and involvement level of young professionals in the educational process:** very good-24.3%, good-40.5%, relatively bad-27%, bad-8.1%, very bad-0%.

- **recognition adequacy of potential and abilities of TS:** very good-27%, good-56.8%, relatively bad-10.8%, bad-2.7%, very bad-27%.

According to the Educational programs 6B07107 - "Transport, Transport Equipment and Technologies" has the following positions:

Strength/best practice

The University has an objective and transparent personnel policy, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.

The University demonstrates compliance with the teaching staff potential development strategy of the University and the specifics of the EP.

The management of the EP involves practitioners of the relevant industries in teaching.

The University implements a clearly formulated open policy to create human resources capable of implementing the Strategic Development Plan of the University, and the contribution of every lecturer is quantified by the evaluation system. For each EP, the faculty is recruited in accordance with the basic education and the specifics of the EP; in addition, the University has developed a competence model of a successful employee.

It is supposed to improve:

It's necessary to develop the work on Academic mobility among the Faculty of the EP with the involvement of the best foreign and native lecturers.

The recommendations of the EEC

- to develop and implement mass open online courses in basic and core disciplines in the process of implementing the EP.
- to consider the possibilities of academic mobility of the teaching staff of the EP, within the framework of the MOOC programs (through Coursera, edEx, etc.) in an online format.
- to ensure the involvement of native and foreign lecturers to give lectures or on-line lectures by foreign specialists for students of the EP.
- to organize joint research with representatives of universities in the near and far abroad.
- to continue work on attracting practitioners to the educational process, especially in bachelor's disciplines.

Conclusions of the EEC according to the standard "Teaching staff" on the Educational programmes 6B07105 - "Instrument Engineering" 7M07105 – "Instrument Engineering" have strong-2, satisfactory-10, suggesting improvement-0 positions in the organization; according to the educational program 6B07107 - "Transport, Transport Equipment and Technologies" has strong-3, satisfactory-8, suggesting improvement-1 positions in the organization of Education; according to the educational programme 6B08601 – "Water resources and water use" has strong - 1, satisfactory – 8, suggesting improvement – 3, unsatisfactory-0 positions in the organization of Education.

6.8. Standard «Educational Resources and Student Support Systems»

The evidence part

The University guarantees compliance of its infrastructure with the specifics of its activities, ensuring sufficient and accessible material educational resources for all students that meet the requirements and needs of educational programs. The material and technical base of the University includes 14 main facilities: 11 educational and laboratory buildings, 3 student dormitories and the summer expedition campus "Prostor" on the Bukhtarma reservoir, as well as a number of auxiliary facilities (workshops, garages, etc.).

The University's classroom fund includes 328 rooms for conducting the educational process, including 99 classrooms, 26 lecture halls, 89 educational laboratories, 11 specialized laboratories, 14 educational research laboratories, 54 classrooms and offices, 36 educational and specialized computer classes.

The University is implementing a single practice-oriented training platform - <https://www.ektu.kz/divisions/cnir.aspx>.

The corresponding levels of the laboratory base have been formed:

- Training laboratories for teaching basic competencies in subjects, centers of competence and new technologies for conducting interdisciplinary research on orders of companies with the participation of master's degree students and doctoral students, <https://www.ektu.kz/divisions/cnir/edublaboratories.aspx>

- Center of Excellence "Veritas" for fundamental and applied scientific research, <https://www.ektu.kz/divisions/cnir/veritas.aspx>

- Training and Production Center "FUTURUM"

<https://www.ektu.kz/divisions/cnir/futurum.aspx>

- Scientific and Production Center for Certification testing of automotive fuels and technical oils «САТИМ»,

<https://www.ektu.kz/divisions/cnir/satim.aspx>

This infrastructure allows us to provide practice-oriented training of specialists who are able to work both at enterprises as engineers, technologists, and continue scientific research within the walls of the university or other scientific organizations.

The provision of the University with information and computer technology is presented in Table 7.

Table 7. Indicators of Informatization

Indicators	2018-2019	2019-2020
Local network availability	in stock	in stock
Availability of a WEB-site	https://www.ektu.kz	https://www.ektu.kz
Intranet site	https://www.ektu.kz	https://www.ektu.kz
Email availability	https://mail.ektu.kz/	https://mail.ektu.kz/
Availability of an educational portal	https://www.do.ektu.kz/doctype/Default.aspx	https://www.do.ektu.kz/doctype/Default.aspx
Number of computers	1380 (856- in the educational process, 528- in the administrative and managerial process)	1444 (898- in the educational process, 546- in the administrative and managerial process)
Number of students per computer	7	6
Internet access speed	300 Mbps 38 Wi-Fi hotspots	500 Mbps 41 Wi-Fi hotspots
Number of computer classes	25	27
Number of computers in computer labs	324	346

The library fund in the context of accredited EP is presented in Table 8, from which a sufficient amount of literature should be noted.

On-line access to foreign full-text multidisciplinary databases is open for university users: the Republican Interuniversity Electronic Library, "Web of knowledge", "Journal Citation Reports", "endnote Web", "Web of Science and Researcher ID", "Elsevier".

The main indicators of the financial activity of the university indicate its stability and self-sufficiency.

Table 8. The proportion of the annual expenditures for replenishment of library Fund

Indicator name		2016 г.	2017 г.	2018 г.	2019 г.	2020 г.
		million tenge				
1	Funds allocated for the purchase of educational, educational-methodical and scientific literature	24.859.248	21.162.025	9.270.144	7.450.385	3.443.811 (for 01.10.2020)

2	Funds allocated for the purchase of periodicals	6.277.044	6. 494.720	6. 498.017	7.126.870	6.230.262
---	---	-----------	------------	------------	-----------	-----------

The effectiveness of EP security is evaluated by checking compliance with licensing and regulatory requirements, conducting an assessment of the satisfaction of teaching staff and students.

For the organization of educational activities, students are provided with a reference guide. For the formation of IEP, the choice of disciplines and specializations, students are provided with Catalog of Elective Disciplines containing annotations, goals and objectives of studying disciplines, the logical sequence of their study, prerequisites and post-prerequisites.

In the Contract of provision with educational services received by each student, there is information about rights and obligations of the parties, the amount and manner of payment of educational services, responsibility of the parties and the dispute resolution procedure, the expiration date, changes the terms of the contract and its termination.

The University has created a service of advisors, which is designed to assist in the development of the educational program. The tasks of the advisors is included to acquaint students with the organization of the educational process, the Charter of the University, internal Regulations of the University, Dormitory rules; assisting students in identifying individual learning paths; consultations for students during choosing courses; assisting students in preparing individual educational plans, etc.

University students have the ability to manage the development of the university. Student deans and student president are elected annually at the general meeting of students. Students are members of the Academic Council of the University, faculties, commissions for the fight against corruption, for the allocation of places in the hostel, etc.

Thus, students have the opportunity to familiarize themselves with the requirements for the educational process, financial discipline, behavior, discipline study, organization of independent work, take part in the work of public associations and university management.

Cluster training is sufficiently provided with a material and technical base. In accordance with the standard and work programs, the accredited EPs are equipped with the necessary classroom and laboratory facilities, classrooms and other premises that provide conditions for education.

The educational process in the laboratories is provided with the necessary laboratory equipment, installed software, teaching aids, textbooks, and methodological guidelines.

On the territory of the academic buildings, a wireless Wi-Fi network is deployed, through which students and teachers get free access to the Internet and the information and educational environment of the university.

Examination of research, graduation and dissertation works for plagiarism is carried out.

As a result of a visual inspection by members of the EEC of the facilities of the material base, the following was noted:

1. The management of the EP has demonstrated the adequacy of material and technical resources and infrastructure. This is evidenced by the fact that the buildings and structures of the university comply with the current sanitary standards and fire safety requirements, the classroom and laboratory facilities, classrooms and other premises, sports facilities comply with the established norms and rules.

2. The management of the EP demonstrated compliance of information resources with the specifics of the EP. However, EEC experts note the presence of outdated equipment in physical laboratories, and recommend reviewing and updating the laboratory fund of devices.

3. The management of the EP demonstrated the compliance of library resources, including the fund of educational, methodological and scientific literature on general education, basic and profile disciplines on paper and electronic media, periodicals, access to scientific databases. However, due to the fact that there are disciplines taught in English for the accredited EP, it is necessary to replenish the fund of educational and educational-methodical literature in English, including its own publications.

4. The management of the EP demonstrated the existence of a mechanism for examining the results of research, graduation papers, and dissertations for plagiarism.

5. A survey of students conducted during the visit of the EEC IAAR showed that satisfaction with:

- **availability of library resources:** fully satisfied-78.8%, partially satisfied-15.2%, not satisfied-0%, partially dissatisfied-0%, difficult to answer-0%.

- **the existing educational resources of the university:** fully satisfied-69.7%, partially satisfied-27.3%, not satisfied-0%, partially dissatisfied-0%, I find it difficult to answer-3%.

- **availability of computer classes and Internet resources:** fully satisfied-60.6%, partially satisfied-36.4%, not satisfied-0%, partially dissatisfied-0%, I find it difficult to answer-3%.

- **classrooms, classrooms for large groups:** fully satisfied-66.7%, partially satisfied-27.3%, not satisfied-0%, partially dissatisfied-0%, I find it difficult to answer - 6.1%.

- **rest rooms for students:** fully satisfied-15.2%, partially satisfied-36.4%, not satisfied-9.1%, partially dissatisfied-12.1%, I find it difficult to answer-27.3%.

- **existing laboratories:** fully satisfied – 72,7%, partially satisfied and 12.1%, not satisfied – 0%, partially satisfied and 6.1%, undecided – 9,1%.

- **providing students with hostels:** fully satisfied – 54,5%, partially satisfied and 12.1%, not satisfied – 0%, partially satisfied - 0%, undecided – 33,3%.

The analytical part

The information provided by the university on the specified EP on material and technical and information resources shows a tendency to improve.

As a result of the analysis of the activities of accredited EP according to this standard, it can be concluded that an 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 learning environment, library support of the educational process, highlighted the activities aimed by the management of the EP to improve the resource support of the implementation of the EP. Extensive material and technical base represented by its own laboratories, competence centers and production bases of employers. There are extensive library collections for familiarizing students with books and periodicals, which are constantly updated for the degree of their actualization. Free access to the Internet resources on the territory of the University is available.

When carrying out educational activities, the university is guided by regulatory documents that regulate mandatory regulatory requirements for the material and technical base of production of organizations. There is a fairly satisfactory level of information support for educational and scientific-educational activities with access to electronic resources of educational significance, which meets the needs of students and teaching staff.

The survey of students conducted during the visit to the EEC IAAR showed that the satisfaction of students with the:

- availability of library resources is 94%;

- existing educational resources of the university 97.4%;

- availability and accessibility of computer classes and Internet resources.%;

- classrooms, classrooms for large groups.%;

- relaxation rooms for students at 51.6%;

- existing scientific laboratories 84.8%;

- providing students with a hostel 66.6%.

Strengths / Best Practice

The EP management demonstrated the sufficiency of material and technical resources and infrastructure;

The EP management demonstrated library resources, including the fund of educational, methodological and scientific literature on general education, basic and profiling disciplines on paper and electronic media, periodicals, access to scientific databases;

Educational online resources are available;

At the proper level, expert examinations of the results of research, graduation papers, and dissertations for plagiarism were carried out.

The University strives to ensure that the educational equipment and software used for the development of EP are similar to those used in the relevant industries.

Extensive material and technical base represented by its own laboratories, centers of competence and production bases of employers. There are extensive library funds to familiarize students with books and periodicals, which are constantly updated for the degree of their actualization. Free access to the Internet resources on the territory of the University is available.

EEC recommendations

- In order to implement the multilingual program, strengthen the work on the development, publication and acquisition of specialized literature for the accredited EP in English.

- Develop and implement a long-term plan for the modernization of educational laboratories for the educational program 6B07107 - "Transport, transport equipment and technology".

EEC conclusions on the standard "Educational resources and student support systems" for educational programs 6B07105 - "Instrument engineering" 7M07105 - "Instrument engineering", 6B07107 - "Transport, Transport Equipment and Technologies" strong - 5, satisfactory - 5, suggest improvements - 0, unsatisfactory -0 positions in educational organization;

according to the educational program 6B08601 - "Water resources and water use" has strong - 1, satisfactory - 9, suggesting improvement - 0, unsatisfactory - 0 positions in the organization of education.

6.9 Standard "Public Information"

The evidence part

University carries out educational and scientific activities, professional development and retraining of managerial and scientific personnel, constantly improving its multifaceted activities and infrastructure through active search, adaptation and use of technological, pedagogical and managerial innovations, increasing the efficiency and quality of training of specialists.

Information about the activities of universities is useful for both applicants and students, as well as for graduates, other stakeholders and the general public. Therefore, the University provides information about its activities, including the programs implemented, the expected learning outcomes of these programs, the qualifications awarded, teaching, training, evaluation procedures, passing scores and educational opportunities provided to students, as well as information about the employment opportunities of graduates.

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 media of the region. 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 activities of the university, in full accordance with the vision and mission, are closely connected with the life of society. Instructors of the University take part in city, regional and republican events; public figures, masters of culture, politicians participate in University events; articles and speeches of the management and scientists of the university are presented in the mass media.

The Faculty's website contains information on all educational programs, teaching staff, including personal pages, research projects, social partnerships, and international cooperation. Full information on the website of the faculty is presented separately for the specialties of the

departments of EP. In the Education section, the development plan of the EP and its description are presented. The scientific section of the department provides full information about the developed scientific projects, published articles, monographs, textbooks, seminars and conferences.

The analytical part

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

1. The information published by the management of the EP within the framework of the EP is accurate, objective and up-to-date. The Commission notes the systematic work on the placement of information on the site, which allows for transparency of activities. The EEC notes the availability of full information about faculty involved in the implementation of accredited programs on the University's website.

2. The management of the EP uses a variety of ways to disseminate information to inform the general public and stakeholders.

3. An important factor is the participation of the University and implemented EP in a variety of external evaluation procedures. The proof is that the University fully implements external evaluation procedures within the framework of accredited Universities and takes an active part in the National Rating of universities among the universities of the Republic of Kazakhstan, consistently entering the top twenty republican universities participating in the rating.

4. The EEC experts note that it is necessary to consider ways to inform the public about cooperation and interaction with partners, including on updating the EP.

5. The survey of students conducted during the visit of the EEC IAAR showed that satisfaction with:

- explaining to you before admission the rules and strategy of the EP: fully satisfied-78.8%, partially satisfied-15.2%, partially satisfied-7%, not satisfied-3%, difficult to answer-3%.

The survey of teaching staff revealed:

- late receipt of information about events: often-2.7%, sometimes-45.9%, never-51.4%, no answer-0%.

The University manages information on accredited EP at a satisfactory level. The management of the EP uses a variety of ways to disseminate information, including the media, information and social networks to inform the general public and stakeholders.

Members of the Commission note the presence on the University website objective and relevant information within the EP, including EP implemented specifying expected learning outcomes; information on the possibility of qualification by the end of the EP; information on options available to students; information about the achievements of staff EP.

Members of the Commission paid special attention to the presence on the website of the University on the pages of departments that implement the EP, information about the achievements of students.

The University has a well-organized and virtually proven activity of the management of the EP and teaching staff in social networks, in the university newspaper and the media.

Assessment of satisfaction with information about the activities of the university, the specifics and progress of the implementation of the EP is carried out regularly and systematically through questionnaires, surveys, feedback, as well as through the rector's blog.

According to EP 6B07107 - "Transport, Transport equipment and Technologies" has the following positions:

Strengths / Best Practice

As part of the survey, the University published the following information:

- implemented programs, indicating the expected learning outcomes;
- about the possibility of assigning qualifications at the end of the EP;
- about teaching, training, evaluation procedures;
- information about passing points and educational opportunities provided to students;
- about employment opportunities for graduates.

Public awareness provides support and clarification of the national development programs of the country and the system of higher and postgraduate education

The University and implemented EP participate in a variety of external evaluation procedures.

The site provides detailed and detailed information about the results of training, qualifications assigned based on the results of training, details about the educational process and information about partner employers with an indication of the possibility of employment under accredited EP.

Detailed information is provided to support and explain the national development programs of the country and the system of higher and postgraduate education.

The recommendations of the EEC

- to provide information to the public about interaction with scientific and consulting organizations;
- to increase the transparency of the budget formation procedure with the involvement of all stakeholders;
- to ensure consistency of the approved University Development Strategy with the budget being formed;
- to consider directions of informing the public about cooperation and interaction with partners, including on updating the EP.

The conclusions of the EEC on the standard "public Information" for educational programmes 6B07105 - "Instrument Engineering" 7M07105 - "Instrument Engineering" 6B07107 - "Transport, Transport Equipment and Technologies" have strong - 7, satisfactory - 6, suggesting improvement - 0 position of the organization of education;

according to the educational programme 6B08601 - "Water resources and water use" have strong - 8, satisfactory - 5, suggesting improvement - 0, unsatisfactory - 0 positions in the Organization of Education.

6.10 Standard "Standards in the context of individual specialties"

The evidence part

The EP's management demonstrated knowledge of the main trends in ICT renewal and, in accordance with these trends, concentrated its activities on the following main directions of education development:

- ensuring the literacy of graduates of the EP in the field of transport equipment and technology;
- forming of practical skills in the field of maintenance, diagnostics and repair of cars;
- ensuring the readiness of graduates to work in large and medium-sized companies;
- developing an inclusive culture and professional competencies, etc.

The EP reflects the regulatory requirements for the professional practice of students. The main modules are developed on the basis of an analysis of market needs, trends in the development of world science, and the experience of implementing such programs at leading foreign universities. The EP is updated annually taking into account current trends in the development of science, society, economic, political and social processes. The content of disciplines is updated, new modules and courses are included, which contribute to maintaining the relevance of the acquired knowledge, skills and abilities.

Departments conduct regular evaluation and review of programs with the participation of students, faculty, partners and employers on the basis of systematic collection, analysis and management of information, as a result of which the program is adapted to ensure their relevance.

The departments maintain feedback with consumers of educational services to improve the EP-monitoring of employment of graduates is conducted; a survey of students and graduates on the level of satisfaction with the education received, a survey of employers on the quality of

training of graduates of the EP is conducted. Taking into account the requests of employers, research laboratories were organized at the department, regular seminars and courses are held for teaching staff and students of the program.

To improve and adjust the EP, the departments conduct joint scientific and educational conferences and seminars in order to exchange experience with foreign scientists.

Practical instructors are involved in the implementation of the EP. EP is implemented by full-time teachers who, along with pedagogical experience, have significant practical experience in various IT sectors of the economy.

In order to familiarize students with the professional environment and current issues in the field of specialization, as well as to acquire skills based on theoretical training, the EP education program includes disciplines and activities aimed at obtaining practical experience and skills in the specialty as a whole and in the profile disciplines.

The content of all the disciplines of EP is based to some extent and includes a clear relationship with the content of fundamental natural sciences, such as mathematics, chemistry, and physics. These subjects are prerequisites for the development of such disciplines as: "Fundamentals of technical operation of transport equipment"; "Fundamentals of heat engineering"; "Fundamentals of machine design"; "Car design"; "Car design"; "Synthesis and analysis of mechanical systems"; "Ergonomics and design of cars"; "Electric and autotronic equipment of transport equipment"; "Technological equipment for maintenance and repair"; "Vehicle testing"; "Design of ATP and service stations"; "Power plants».

The management of the EP provides measures to strengthen practical training in the field of specialization in the areas of cars and automotive industry, road, construction and lifting and transport machines.

Branches have been established for training in accredited EP at the enterprises of LC "ASIA AUTO"; LC "BIPEK AUTO Kazakhstan"; LLC "KAZZINC – TRANS"; LLC "Royalavto"; LLC "Etora"; LLC "Virazh service"; LLC "UA Transstroy", LLC "Eurotechservice".

The management of the EP provides training of students in the field of application of modern information technologies. The curriculum includes special disciplines of Information and communication technologies (in English), Machine graphics, Electrical and autotronic equipment of transport equipment.

The methodology of teaching disciplines is being improved, interactive methods are being used, and forms of training (group and individual work) are being integrated. A lecturer, who works in groups "Education", passes a pedagogical internship at the school, studies and analyzes the methodology of teaching the updated content of education, the methodology of criteria-based assessment and conducts lessons in assigned classes. After completion, each lecturer conducts a demonstration lesson, which is discussed at the scientific and methodological seminar of the department and the faculty's EMC.

The scientific library uses the Kazakhstan Automated Library and Information Program (KALIP) - database (DB), this product is used to automate the main library processes and create an electronic catalog of the library's collection, as well as a full-text database. The University has access to the world scientific databases such as Scopus, which is part of the Thomson Reuters - Web of Science database.

The analytical part

Based on the results of the analysis, the members of the EEC came to the following conclusions.

1. Teaching in accredited EP is based on the achievements of science and practice in the field of specialization.

2. The Commission is provided with evidence-based information on the existence of a practice-oriented nature of training, which allows you to form the necessary professional competencies of graduates.

3. Information on the types of practices and related aspects is presented and confirmed by facts, the main skills and abilities acquired as a result of training are indicated.

4. Evaluation of the effectiveness and efficiency of the implementation of educational programs takes place at the expense of feedback provided by employers, applications, expansion of the practice base, etc. The indicator of successful implementation of the EP is the successful completion of various types of practice, the percentage of employment.

5. The developers of EP: Teaching staff of the department, employers and students are involved in the collection and analysis of information on the preparation of the content of the EP. EP is regularly monitored and peer-reviewed. Experts gave a positive assessment, as the EP is designed in accordance with the needs of the labor market and personnel with higher professional education. The cycle of profile disciplines covers the necessary areas of scientific knowledge for the formation of professional competencies.

Strengths / Best Practice

In order to familiarize students with the professional environment and topical issues in the field of specialization, as well as to acquire skills based on theoretical training, the educational program includes disciplines and activities aimed at gaining practical experience and skills in the specialty in general and in the major disciplines in particular, including:

- excursions to enterprises in the field of specialization (car assembly plants, workshops, research laboratories, etc.),
- conducting individual classes or entire disciplines at the enterprise of specialization,
- holding seminars for solving practical problems relevant for enterprises in the field of specialization, etc.

The faculty, involved into the education program, includes full-time lecturers with long-term experience as full-time employees in enterprises in the area of specialization of the education program.

The content of all disciplines of the EP is based on and includes a clear relationship with the content of fundamental natural sciences, such as mathematics, chemistry, and physics.

The management of the EP provides measures to strengthen practical training in the field of specialization.

The teaching staff consists of a large number of employees with long-term practical activities in various enterprises.

Recommendation of the EEC

1. The management of the EP should provide measures to strengthen practical training in the field of specialization.

Conclusions of the EEC on the standard “Standards in the context of a particular specialty” 6B07107 – “Transport, Transport Equipment and Technologies”, in the profile “Natural sciences, agricultural sciences, technical sciences and technologies” in the program has strong positions - 4, satisfactory - 1 and suggests improvement - 0;

Educational programmes 6B07105 - “Instrument Engineering” 7M07105 - “Instrument Engineering”, 6B08601 – “Water resources and water use” in the profile “Natural sciences, agricultural sciences, technical sciences and technologies” according to the program has strong positions - 1, satisfactory - 4 and suggests improvement - 0.

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

Standard " Management of Educational Programme"

The university has a published quality assurance policy. The quality assurance policy reflects the relationship between research, teaching and learning;

Management should strive to ensure that progress made since the last external quality assurance procedure is taken into account in preparation for the next procedure.

The heads of Education Program 6B07105, 7M07105 (5B071600, 6M071600) - "Instrument Making" have developed unique bachelor's and master's degree courses that meet modern trends with the organization of double-degree education.

Standard "Information Management and Reporting"

The university ensures the functioning of the information collection, analysis and management system based on the use of modern information and communication technologies and software;

The university demonstrated the definition of the procedure and ensuring the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision;

The information collected and analyzed by the university takes into account the availability of educational resources and support systems for students:
<https://www.ektu.kz/student/graduate.aspx?lang=ru>.

A successfully functioning information flow management system has been created, based on modern information and communication technologies, taking into account the structure of the organization and the analyzed indicators.

The information platform takes into account the detailed study of the responsible and the functions performed by them, as well as the consistent relationship between the participants of business processes.

The key indicators to be analyzed are clearly identified and mechanisms for their formation are created.

Standard "Development and approval of educational programmes"

The University at the appropriate level defines and documents procedures for the development of EPs and their approval at the institutional level;

The EP management has ensured that the developed EP meets the established goals, including the expected learning outcomes;

The EP management ensures the availability of developed models of the graduate of the EP, describing the results of training and personal qualities

The EP management demonstrated the conduct of external examinations of the EP.

The EP management determined the influence of disciplines and professional practices on the formation of learning outcomes

The EP management provides the content of academic disciplines and results of training at the level of training (bachelor's, master's, doctoral studies).

All EPs submitted for consideration are submitted annually for evaluation by accreditation organizations, often winning prizes. In addition, the assessment is made by employers, partner universities implementing joint training of specialists.

On the basis of large partner enterprises, students receive additional training on the types of work performed for subsequent employment without loss of time, on medium and small partner organizations, interns perform certain types (work) services, depending on the level of admission, which are implemented at the time of internship.

The ability to develop in detail the content of the EP and organize the training of students, with the final result in the form of implemented double-degree education with foreign partner universities.

Standard "On-Going monitoring and periodic review of educational programmes"

Constant monitoring of the content of EPs in the light of the latest scientific achievements in a particular discipline is carried out to ensure the relevance of the taught discipline;

To expand the competitiveness and increase the number of training paths for EP 6B07105, 7M07105 - "Instrument Making", a unique EP was developed at the junction of various areas of medicine and instrument engineering, confirming the high qualification of Education Program managers in this area and the ability of the university base to prepare the base for providing a new training program.

Standard "Student-centered learning, teaching and performance evaluation"

The EP management demonstrated the existence of a procedure for responding to complaints of students.

Standard «Teaching staff»

The university has an objective and transparent personnel policy, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.

The university demonstrated the compliance of the personnel potential of the Faculty with the university development strategy and the specifics of the EP.

The EP management involves practitioners of the relevant industries in teaching.

The university implements a clearly formulated open policy to create human resources capable of implementing the Strategic Development Plan of the university, and the contribution of each teacher is quantified by the evaluation system. For each EP, teachers are recruited in accordance with the basic education and the specifics of the EP, in addition, the university has developed a competence model of a successful employee.

Standard "Educational resources and student support systems"

The EP management demonstrated the adequacy of material and technical resources and infrastructure;

The EP management demonstrated library resources, including the fund of educational, methodological and scientific literature on general education, basic and profile disciplines on paper and electronic media, periodicals, access to scientific databases;

Educational online resources are available;

At the proper level, expert examinations of the results of research, graduation papers, and dissertations for plagiarism were carried out.

The university should strive to ensure that the educational equipment and software used for the development of EP are similar to those used in the relevant industries.

Extensive material and technical base, represented by its own laboratories, competence centers and production bases of employers.

Extensive library collections for familiarizing students with books and periodicals, which are constantly updated for the degree of their actualization.

Availability of free access to Internet resources on the territory of the university.

Standard "Public Information"

As part of the survey, the university published the following information:

- * implemented programs, indicating the expected learning outcomes;
- * about the possibility of assigning qualifications at the end of the EP;
- * about teaching, training, evaluation procedures;
- * information about passing scores and learning opportunities provided to students;
- * about employment opportunities for graduates.

Public awareness provides support and clarification of the national development programs of the country and the system of higher and postgraduate education.

The university and implemented EP participate in a variety of external evaluation procedures.

The site provides detailed and detailed information about the results of training, qualifications assigned based on the results of training, details about the educational process and information about partner employers with an indication of the possibility of employment under accredited EP.

Detailed information is provided to support and explain the national development programs of the country and the system of higher and postgraduate education.

"Standards in the context of individual specialties" Standard

To familiarize students with the professional environment and relevant issues in the field of specialization, as well as for the acquisition of skills based on theoretical training program of education included disciplines and activities aimed at obtaining practical experience and skills in general and majors in particular disciplines, including:

- visits to enterprises in the field of specialization (assembly plants, workshops, laboratories, etc.)

- conduct individual sessions or entire disciplines in the enterprise specialization,

- conducting seminars to solve practical problems relevant to enterprises in the field of specialization, etc. The Faculty involved in the education program includes full-time teachers who have long-term experience as a full-time employee at enterprises in the field of specialization of the education program.

The content of all disciplines of the EP is based on and includes a clear relationship with the content of fundamental natural sciences, such as mathematics, chemistry, and physics.

The EP management provides measures to strengthen practical training in the field of specialization.

The Faculty consists of a large number of employees with long-term practical activities in various enterprises.

(VIII) OVERVIEW RECOMMENDATIONS FOR IMPROVING QUALITY

Standard "Management of Educational Programme"

- * Improve the relationship between research, learning and teaching.
- * Ensure the involvement of various employers in the process of forming EPs.
- * Consider developing plans for updating the material and technical base, including equipping specialized laboratories for accredited EPs.
- * Consider the possibility of training EP managers in management programs in education.

Standard "Information Management and Reporting"

- * Step up efforts to involve all categories of stakeholders: students, employers, the Faculty and staff in the process of collecting and analyzing information, as well as making decisions based on them.

- Update information on the EP in three languages on a regular basis on the website

Standard "Development and approval of the educational programme"

Consider the development of joint educational programs with national and foreign educational organisations;

- * Develop a plan to attract the Faculty of national universities and foreign educational organizations to conduct joint scientific case studies.

- * Include in the development plans of the EP an analysis of the effectiveness and concretize cooperation with foreign educational organizations.

- * Develop and implement a plan to introduce elements of dual training.

**Evaluation table "PARAMETERS OF A SPECIALISED PROFILE"
Conclusion of the external expert commission for assessing the quality of education
programs 6B07105 - "Instrument Making", 7M07105 – " Instrument Making»**

	Evaluation criteria	Position of the educational organization			
		strong	satisfactory	suggests improvement	unsatisfactory
Standard "Management of Educational Programme"					
	The university should have a published quality assurance policy.	+			
	Quality assurance policies should reflect the relationship between research, teaching and learning.	+			
	The university should demonstrate the development of a culture of quality assurance, including in the context of the EP		+		
	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint / double-degree education and academic mobility.	+			
	The EP management ensures transparency in the development of the EP development plan based on the analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of the state, employers, stakeholders and students.		+		
	The EP management demonstrates the functioning of mechanisms for forming and regularly reviewing the EP development plan and monitoring its implementation, evaluating the achievement of training goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.		+		
	The EP management should involve representatives of groups of interested persons, including employers, students and the Faculty in the formation of the development plan of the EP.		+		
	The EP management should demonstrate the individuality and uniqueness of the development plan of EP, its consistency with national development priorities and development strategy of the organization of education.		+		
	The university 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 the differentiation of functions of collegial bodies.				
0		The EP management should provide evidence of the transparency of the EP management system.		+		
1		The EP management should demonstrate the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, and fact-based decision-making.		+		
2		The EP management should carry out risk management.		+		
3		The EP management should ensure the participation of representatives of interested persons (employers, the Faculty, students) in the collegial management bodies of the EP, as well as their representativeness in making decisions on the management of the EP.		+		
4		The university should demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals.		+		
5		The EP management should demonstrate evidence of openness and accessibility for students, the Faculty, employers and other stakeholders.		+		
6		The EP management must be trained in education management programs.				+
7		The EP management should strive to ensure that the progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.		+		
Total for standard			3	13	1	
Standard "Information Management and Reporting"						
8		The university should ensure the functioning of the system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software.		+		
9		The EP management should demonstrate the systematic use of processed, adequate information to improve the internal quality assurance system.		+		
0		Within the framework of the EP, there should be a system of regular reporting that reflects all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research.		+		
1		The university should establish the frequency, forms and methods of evaluating the EP management, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects.		+		
2		The university should demonstrate the definition of the procedure and ensuring the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data		+		

		provision.				
3		An important factor is the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.		+		
4		The EP management should demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, including the existence of mechanisms for conflict resolution.		+		
5		The university should ensure that the degree of satisfaction with the needs of the Faculty, staff and students within the EP is measured and demonstrate evidence of addressing the identified shortcomings.		+		
6		The university should evaluate the effectiveness and efficiency of its activities, including in the context of the EP.		+		
		The information collected and analyzed by the university should take into account:				
7		key performance indicators;	+			
8		dynamics of the contingent of students in the context of forms and types;		+		
9		level of academic performance, achievement of students and the dismissal;		+		
0		students' satisfaction with the implementation of the EP and the quality of education at the university;		+		
1		availability of educational resources and support systems for students;		+		
2		employment and career development of graduates.		+		
3		Students, employees and the Faculty must document their consent to the processing of personal data.		+		
4		The EP management should provide with all necessary information in the relevant fields of science.		+		
Total for standard			3	14	0	
Standard "Development and Approval of Education Programmes"						
5		The university should define and document the procedures for the development of the EP and their approval at the institutional level.	+			
6		The EP management should ensure that the developed EPs meet the established goals, including the expected learning outcomes.	+			
7		The EP management should ensure that there are developed models of the graduate of the EP that describe learning outcomes and personal qualities.		+		
8		The EP management should demonstrate the conduct of external examinations of the EP.	+			

9		The qualifications obtained at the end of the EP must be clearly defined, explained and correspond to a certain level of the National Qualifications framework.		+		
0		The EP management should determine the impact of disciplines and professional practices on the formation of learning outcomes.		+		
1		An important factor is the possibility of preparing students for professional certification.	+			
2		The EP management should provide evidence of the participation of students, teaching staff and other stakeholders in the development of the EP, ensuring their quality.		+		
3		The labor intensity of the EP should be clearly defined in Kazakhstan credits and ECTS.		+		
4		The EP management should provide the content of academic disciplines and learning outcomes for the level of study (bachelor's, master's, doctoral).	+			
5		The structure of the EP should provide for various activities that correspond to the results of training.		+		
6		An important factor is the existence of a joint EP with foreign educational organizations.	+			
Total for standard			6	6	0	
Standard "On-Going Monitoring and Periodic Review of Educational programmes"						
7		The university should monitor and periodically evaluate the EP in order to ensure that the goal is achieved and meet the needs of students and society. The results of these processes are aimed at continuous improvement of the EP.		+		
		Monitoring and periodic evaluation of the EP should consider:				
8		content of programs in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the taught discipline;	+			
9		changes in the needs of society and the professional environment;		+		
0		workload, academic performance and graduation of students;		+		
1		effectiveness of student assessment procedures;		+		
2		expectations, needs and satisfaction of students with training in EP;		+		
3		the educational environment and support services and their compliance with the goals of the EP.		+		
4		The university and the EP management must provide evidence of the participation of students, employers and other stakeholders in the revision of the EP.		+		
5		All interested parties should be informed of any planned or undertaken actions regarding the EP. All changes made to the EP should be published.		+		

6		The EP management should ensure the revision of the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society.		+		
Total for standard			1	9	0	
Standard "Student-centered Learning, Teaching and Performance Evaluation"						
7		The EP management should ensure respect and attention to different groups of students and their needs, providing them with flexible learning paths.		+		
8		The EP management should ensure the use of various forms and methods of teaching and learning.		+		
9		An important factor is the availability of our own research in the field of teaching methods of EP disciplines.		+		
0		The management of the EP should demonstrate the existence of a feedback system for the use of various teaching methods and evaluation of learning outcomes.		+		
1		The EP management should demonstrate support for student autonomy while providing guidance and assistance from the teacher.		+		
2		The EP management should demonstrate that there is a procedure in place to respond to student complaints.		+		
3		The university should ensure consistency, transparency and objectivity of the learning outcomes assessment mechanism for each EP, including appeal.		+		
4		The university must ensure that the procedures for evaluating the learning outcomes of students of the EP correspond to the planned learning outcomes and goals of the program. The criteria and methods of evaluation within the EP should be published in advance.		+		
5		The university should determine the mechanisms for ensuring that each EP graduate learns the results of training and ensures the completeness of their formation.		+		
6		Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area.		+		
Total for standard			0	10	0	
Standard "Students"						
7		The university should demonstrate the policy of forming a contingent of students from admission to graduation and ensure transparency of its procedures. Procedures governing the life cycle of students (from admission to completion) should be defined, approved, and published.		+		
8		The EP management should demonstrate the implementation of special adaptation and support programs for newly enrolled and foreign students.		+		
9		The university should demonstrate that its actions comply with the Lisbon Convention.		+		
0		The university should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic		+		

		Recognition and Mobility/National Academic Recognition Information Centers " ENIC/NARIC to ensure comparable recognition of qualifications.				
1		The EP management should demonstrate 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.		+		
2		The university should provide opportunities for external and internal mobility of the EP students, as well as assist them in obtaining external grants for training.		+		
3		The EP management should make the maximum amount of effort to provide students with internship places, promote employment of graduates, and maintain communication with them.		+		
4		The university should provide the EP graduates with documents confirming the qualification obtained, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.		+		
5		An important factor is monitoring the employment and professional activities of the EP graduates.		+		
6		The EP management should actively encourage students to self-education and development outside the main program (extracurricular activities).		+		
7		An important factor is the existence of a functioning alumni association/association.			+	
8		An important factor is the availability of a support mechanism for gifted students.		+		
Total for standard			0	11	1	
Standard "Teaching staff"						
9		The university should have an objective and transparent personnel policy, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.		+		
0		The university should demonstrate that the personnel potential of the Faculty corresponds to the development strategy of the university and the specifics of the EP.		+		
1		The EP management should demonstrate an awareness of responsibility for its employees and provide them with a favorable working environment.		+		
2		The EP management should demonstrate the change in the teacher's role in connection with the transition to student-centered learning.		+		
3		The university should determine the contribution of the EP Faculty to the implementation of the university's development strategy, and other strategic documents.		+		
4		The university should provide opportunities for career growth and professional development of the EP Faculty.		+		
5		The EP management should involve practitioners of the relevant industries in teaching.		+		

6		The EP management should provide targeted actions for the development of young teachers.		+		
7		The university should demonstrate the motivation for the professional and personal development of the EP teachers, including the promotion of both the integration of scientific activities and education, and the use of innovative teaching methods.		+		
8		An important factor is the active use of information and communication technologies in the educational process (for example, on-line training, e-portfolio, MOOC, etc.).		+		
9		An important factor is the development of academic mobility within the EP, attracting the best foreign and domestic teachers.		+		
0		An important factor is the involvement of the EP Faculty in the life of society (the role of the teaching staff in education, in science, in the region, creating cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).		+		
Total for standard			2	10	0	
Standard “Educational Resources and Student Support Systems”						
1		The EP management should demonstrate the adequacy of material and technical resources and infrastructure.	+			
2		The EP management should demonstrate that there are procedures in place to support different groups of students, including information and consulting.		+		
		The EP management should demonstrate that the information resources correspond to the EP specifics, including compliance with:				
3		technological support for students and the Faculty in accordance with educational programs (for example, online training, modeling, databases, data analysis programs);		+		
4		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;	+			
5		access to educational online resources;	+			
6		examination of the results of research, final papers and dissertations for plagiarism;	+			
7		functioning of WI-FI on the territory of the educational organization.		+		
8		The university should strive to ensure that the educational equipment and software used for the EP development are similar to those used in the relevant industries.	+			
9		The university should ensure compliance with safety requirements in the learning process.		+		

00	0.	The university should strive to take into account the needs of different groups of students in the EP context (adults, working, foreign students, as well as students with disabilities).		+		
Total for standard			5	5	0	
Standard "Public Information"						
		The information published by the university within the framework of the EP should be accurate, objective, up-to-date and must include:				
01	.	implemented programs, indicating the expected learning outcomes;	+			
02	.	information about the possibility of obtaining a qualification at the end of the EP;	+			
03	.	information about teaching, training, and evaluation procedures;	+			
04	.	information about passing points and educational opportunities provided to students;	+			
05	.	information about employment opportunities for graduates.	+			
06	.	The EP 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 persons.		+		
07	.	Public awareness should include support and clarification of the national development programs of the country and the system of higher and postgraduate education.	+			
08	.	The university should publish audited financial statements on its own web resource.		+		
09	.	The university should demonstrate the reflection on the web resource of information that characterizes the university as a whole and in the EP context.		+		
10	0.	An important factor is the availability of adequate and objective information about the EP Faculty, in the context of personalities.		+		
11	1.	An important factor is to inform the public about cooperation and interaction with partners within the EP, including scientific/consulting organizations, business partners, social partners and educational organizations.		+		
12	2.	The university should post information and links to external resources based on the results of external evaluation procedures.		+		
13	3.	An important factor is the participation of the university and the implemented EP in a variety of external evaluation procedures.	+			
Total for standard			7	6	0	
NATURAL SCIENCES, AGRICULTURAL SCIENCES, ENGINEERING, AND TECHNOLOGY						
		Education programs in the areas of "Natural Sciences", "Technical Sciences and Technologies", such as "Mathematics", "Physics", "Information Systems", etc., should meet the following requirements:				

14	.	To familiarize students with the professional environment and relevant issues in the field of specialization, as well as for the acquisition of skills based on theoretical training program of education should include disciplines and activities aimed at obtaining practical experience and skills in general and majors disciplines in particular, including: - visits to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, educational-experimental farms, etc.), - conducting individual classes or entire disciplines at the enterprise of specialization, - conducting seminars to solve practical problems relevant to enterprises in the field of specialization, etc.	+			
15	.	The Faculty involved in the education program should include full-time teachers who have long-term experience as a full-time employee in enterprises in the field of specialization of the education program.	+			
16	.	The content of all disciplines of the EP should be based in one way or another and include a clear relationship with the content of fundamental natural sciences, such as mathematics, chemistry, and physics.	+			
17	.	The EP management should provide measures to strengthen practical training in the field of specialization.	+			
18	.	The EP management should ensure that students are trained in the use of modern information technologies.		+		
Total for standard			4	1	0	
Total			31	85	2	

Parameters of evaluation

Educational programme 6B07107 - "Transport, transport equipment and technologies"

		Evaluation criteria	Position of the educational organization			
			strong	satisfactory	suggests improvement	unsatisfactory
Standard " Management of Educational programme"						
1		The university should have a published quality assurance policy.	+			
2		Quality assurance policies should reflect the relationship between research, teaching and learning.	+			
3		The university should demonstrate the development of a culture of quality assurance, including in the context of the EP.		+		
4		Commitment to quality assurance should apply to any activity performed by contractors and partners		+		

		(outsourcing), including the implementation of joint / double-degree education and academic mobility.				
5		The EP management provides transparency to the EP development plan based on the analysis of its functioning, the actual positioning of the University and focus its activities to meet the needs of the state, employers, stakeholders and learners.		+		
6		The EP management demonstrates the functioning of mechanisms for forming and regularly reviewing the EP development plan and monitoring its implementation, evaluating the achievement of training goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.		+		
7		The EP management should involve representatives of interest groups, including employers, students and the Faculty in the formation of the EP development plan.		+		
8		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.		+		
9		The university should demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of staff responsibilities, and the differentiation of functions of collegial bodies.		+		
10		The EP management should provide evidence of the transparency of the EP management system.		+		
11		The EP management should demonstrate the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, and fact-based decision-making.		+		
12		The EP management should carry out risk management.		+		
13		The EP management should ensure the participation of representatives of interested persons (employers, the faculty, students) in the collegial management bodies of the EP, as well as their representativeness in making decisions on the management of the educational program.		+		
14		The university should demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals.		+		
15		The EP management should demonstrate evidence of openness and accessibility to students, faculty, employers, and other stakeholders.		+		
16		The EP management should be trained in educational management programs.			+	
17		The EP management should strive to ensure that the progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.	+			
Total for standard			3	13	1	0
Standard "Information Management and Reporting"						

18		The university should ensure the functioning of the system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software.	+			
19		The EP management should demonstrate the systematic use of processed, adequate information to improve the internal quality assurance system.		+		
20		Within the framework of the EP, there should be a system of regular reporting that reflects all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and sub-departments, and scientific research.		+		
21		The university should establish the frequency, forms and methods of evaluating of the EP management, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects.		+		
22		The university should demonstrate the definition of the procedure and ensuring the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision.	+			
23		An important factor is the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.		+		
24		The EP management should demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, including the existence of mechanisms for conflict resolution.		+		
25		The university must ensure that the degree of satisfaction with the needs of the Faculty, staff and students within the EP is measured and demonstrate evidence of addressing the identified shortcomings.		+		
26		The university should evaluate the effectiveness and efficiency of its activities, including in the context of the EP.		+		
The information collected by the university should take into account:						
27		key performance indicators;		+		
28		dynamics of the students' contingent in the context of forms and types;		+		
29		level of academic performance, students' achievement and dismissal;		+		
30		students' satisfaction with the EP implementation and quality of education at the university;		+		
31		availability of educational resources and support systems for students;	+			
32		employment and career development of graduates;		+		
33		students, employees and the Faculty must document their consent to the processing of personal data;		+		

34		The EP management should facilitate the provision of all necessary information in the relevant fields of science;		+		
Total for standard			3	14	0	0
Standard "Development and approval of Educational Programme"						
35		The university should define and document the procedures for the EPs development and their approval at the institutional level.	+			
36		The EP management should ensure that the developed EPs meet the established goals including the expected learning outcomes.	+			
37		The EP management should ensure the availability of the developed models of the EP graduate describing the learning outcomes and personal qualities.	+			
38		The EP management should demonstrate the conducting of external examinations of the EP.	+			
39		The qualifications obtained at the end of the EP should be clearly defined, explained and meet the certain level of the National Qualifications Framework		+		
40		The EP management should determine the impact of disciplines and professional practices on formation of learning outcomes.	+			
41		An important factor is the possibility of preparing students for professional certification.			+	
42		The EP management should provide evidence of the participation of students, the faculty and other stakeholders in the EPs development ensuring their quality.		+		
43		The EP labor intensity should be clearly defined in Kazakhstan credits and ECTS.		+		
44		The EP management should provide the compliance of academic disciplines and learning outcomes with the level of study (bachelor, master and doctoral).	+			
45		The EP structure should include various activities that correspond to the results of training.		+		
46		An important factor is the availability of joint EP with foreign educational organizations.		+		
Total for standard			6	5	1	0
Standard "On-Going Monitoring and Periodic review of Educational Programmes"						
47		The university should conduct monitoring and periodic EP evaluation in order to ensure that the goal is achieved and meet the needs of students and society. The results of these processes are aimed at continuous EP improvement		+		
Monitoring and periodic evaluation of the EP shouldt consider:						
48		the content of the programmes in the light of the latest science on specific discipline to ensure the relevance of courses taught;	+			
49		changing needs of society and the professional environment;		+		
50		load, performance and production students;		+		

51		the effectiveness of assessment procedures of students;		+		
52		expectations, needs and satisfaction of students with training on the EP;		+		
53		educational setting and support services and their compliance with the EP objectives.		+		
54		The University and the EP management should provide evidence of the participation of students, employers, and other stakeholders in the EP revision.		+		
55		All interested parties should be informed of any actions planned or taken in relation to the EP. All changes made to the EP should be published.		+		
56		The EP management should ensure that the content and structure of the EP are reviewed, taking into account changes in the labor market, the requirements of employers and the social demand of society.		+		
Total for standard			1	9	0	0
Standard "Student-centred Learning, Teaching and Performance evaluation"						
57		The EP management should ensure respect and attention to different groups of students and their needs, and provide them with flexible learning paths.		+		
58		The EP management should ensure that various forms and methods of teaching and learning are used.		+		
59		An important factor is the availability of our own research in the field of teaching methods of academic disciplines of the EP.		+		
60		The EP management should demonstrate the existence of a feedback system for using various teaching methods and evaluating learning outcomes.		+		
61		The EP management should demonstrate support for students' autonomy, while providing guidance and assistance from the teacher.		+		
62		The EP management should demonstrate that there is a procedure in place to respond to student complaints.	+			
63		The university should ensure consistency, transparency, and objectivity of the learning outcomes assessment mechanism for each EP, including appeal.		+		
64		The university should ensure that the procedures for evaluating the learning outcomes of students of the EP comply with the planned learning outcomes and program goals. Criteria and methods of evaluation within the framework of the EP should be published in advance.		+		
65		The University should define the mechanisms for ensuring that each EP graduate, develop learning outcomes and ensure the completeness of their formation.		+		
66		Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area.		+		
Total for standard			1	9	0	0
Standard "Students"						

67		The university should demonstrate the policy of forming a contingent of students from admission to graduation and ensure transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) should be defined, approved, and published.		+		
68		The EP management should demonstrate that special adaptation and support programs are being implemented for newly enrolled and international students.		+		
69		The university should demonstrate that its actions comply with the Lisbon Convention.		+		
70		The university should cooperate with other educational organizations and national centers of the "European network of national information centers for academic recognition and mobility/National academic Recognition Information Centers " ENIC/NARIC to ensure comparable recognition of qualifications.		+		
71		The EP management should demonstrate 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.		+		
72		The university should provide opportunities for external and internal mobility of EP students, as well as assist them in obtaining external grants for training.			+	
73		The EP management should make the maximum amount of effort to provide students with places of practice, promote employment of graduates, and maintain communication with them.		+		
74		The university should provide the EP graduates 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.		+		
75		An important factor is monitoring the employment and professional activities of EP graduates.		+		
76		The EP management should actively encourage students to self-educate and develop outside of the main program (extracurricular activities).		+		
77		An important factor is the existence of a functioning alumni association.		+		
78		An important factor is the availability of a support mechanism for gifted students.		+		
Total for standard				1		
Standard "Teaching Staff"			0	11	1	0
79		The university should have an objective and transparent personnel policy, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.		+		
80		The university should demonstrate that the personnel potential of the Faculty corresponds to the development strategy of the university and the specifics of the EP.		+		

81		The company's management should demonstrate an awareness of responsibility for its employees and provide them with a favorable working environment.		+		
82		The EP management should demonstrate a change in the role of the teacher in connection with the transition to student-centered learning.		+		
83		The university should determine the contribution of the EP faculty to the implementation of the university's development strategy, and other strategic documents.		+		
84		The university should provide opportunities for career growth and professional development of EP faculty.		+		
85		The EP management should involve practitioners from relevant industries in teaching.	+			
86		The EP management should ensure targeted actions for the development of young teachers.		+		
87		The university should demonstrate motivation for the professional and personal development of EP teachers including encouraging both the integration of scientific activities and education, as well as the use of innovative teaching methods.		+		
88		An important factor is the active use of the Faculty the information and communication technologies in the educational process (for example, on-line training, e-portfolio, MOOC, etc.).		+		
89		An important factor is the development of academic mobility within the framework of the EP, attracting the best foreign and domestic teachers.			+	
90		An important factor is the involvement of the EP faculty to society (the role of the faculty in education, in science, in the region, creating cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).		+		
Total for standard			3	8	1	0

Standard “Educational Resources and Student Support Systems”						
91	1.	EP management should demonstrate the adequacy of material and technical resources and infrastructure.	+			
92	2.	EP management should demonstrate that there are procedures supporting different groups of the students, including information and counseling.		+		
<i>EP management should demonstrate that the information resources correspond to the specifics of the EP, including compliance with:</i>						
93	3.	technological support for the students and faculty in accordance with education programs (for example, online training, modeling, databases, data analysis programs);		+		
94	4.	library resources, including the collection of educational, methodological and scientific literature on general education, basic and core disciplines on paper and electronic media, periodicals, access to scientific databases;	+			
95	5.	Access to educational online resources	+			
96	6.	examination of the results of research, final papers and dissertations for plagiarism;	+			

97	7.	functioning of WI-FI on the territory of the educational organization.		+		
98	8.	The university should strive to ensure that the training equipment and software used for the EP study are analogous to those used in the relevant industries.	+			
99	9.	The university should ensure compliance with safety requirements in the learning process.		+		
100	10.	The university should strive to take into account the needs of different groups of students in the context of EP (adult, working, and foreign students, as well as students with disabilities).		+		
Total per standard			5	5	0	0
Standard “ Public Information”						
<i>The information published by the university within the framework of the EP should be accurate, objective, relevant, and should include:</i>						
101	1.	implemented programs, indicating the expected learning outcomes;	+			
102	2.	information on the possibility of assigning a qualification at the completion of the EP;	+			
103	3.	information on teaching, training, and assessment procedures;	+			
104	4.	information on passing grades and educational opportunities provided to the students;	+			
105	5.	information on employment opportunities for graduates.	+			
106	6.	EP management should use a variety of ways to provide information (including mass media, web resources, information networks, etc.) in order to inform the general public and interested persons.		+		
107	7.	Public awareness should include support and clarification of the national programs for the country and the higher and postgraduate education system development	+			
108	8.	The university should publish audited financial statements on its own web resource.		+		
109	9.	The university should demonstrate the information characterizing the university as a whole and in the context of the EP on the web resource.		+		
110	10.	The availability of adequate and objective information about the faculty of the EP, in the context of personalities is an important factor.		+		
111	11.	Informing the public about cooperation and interaction with partners within the framework of the EP, including scientific/consulting organizations, business partners, social partners and educational organizations is an important factor.		+		
112	12.	The university should post information and links to external resources based on the results of external evaluation procedures.		+		
113	13.	The participation of the university and implemented EP in a variety of external evaluation procedures is an important factor.	+			
Total per standard			7	6	0	0
Sum total			27	82	4	0
Standards in the context of individual specialties						
NATURAL SCIENCES, AGRICULTURAL SCIENCE, ENGINEERING, AND TECHNOLOGY						
<i>Education programs in the areas of Natural Sciences, Technical Sciences and Technologies, such as Mathematics, Physics, Information Systems, etc., should meet the following requirements:</i>						

114	1.	To familiarize the students with the professional environment and relevant issues in the field of specialization, as well as for the acquisition of skills based on theoretical training the program of education should include disciplines and activities aimed at obtaining practical experience and skills in general and core disciplines, including: - visits to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, educational-experimental establishments, etc.), - conducting individual classes or entire disciplines at the enterprise of specialization, - conducting seminars to solve practical problems relevant to enterprises in the field of specialization, etc.	+			
115	2.	The faculty involved in the education program should include full-time teachers who have long-term experience as a full-time employee of enterprises in the field of specialization of the education program.	+			
116	3.	The content of all the EP disciplines should be based in one way or another and include a clear relationship with the content of fundamental natural sciences, such as mathematics, chemistry, and physics.	+			
117	4.	EP management should provide measures to strengthen practical training in the field of specialization.	+			
118	5.	EP management should provide training of the students in the field of modern information technologies application.		+		
Total per standard			4	1	0	0
TOTAL			31	83	4	0

**Parameters of EP evaluation
6B08601 – “Water Resources and Water Consumption”**

		Evaluation criteria	Position of the educational organization			
			strong	satisfactory	suggests improvement	unsatisfactory
Standard " Management of Educational Programme"						
1	1.	The university should have a published quality assurance policy.	+			
2	2.	Quality assurance policies should reflect the relationship between research, teaching and learning.		+		
3	3.	The university should demonstrate the development of a culture of quality assurance, including in the context of the EP.		+		
4	4.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint / double-degree education and academic mobility.		+		

5	5.	The EP management provides transparency to the EP development plan based on the analysis of its functioning, the actual positioning of the University and focus its activities to meet the needs of the state, employers, stakeholders and learners.		+		
6	6.	The EP management demonstrates the functioning of mechanisms for forming and regularly reviewing the EP development plan and monitoring its implementation, evaluating the achievement of training goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.		+		
7	7.	The EP management should involve representatives of interest groups, including employers, students and the Faculty in the formation of the EP development plan.		+		
8	8.	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.		+		
9	9.	The university should demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of staff responsibilities, and the differentiation of functions of collegial bodies.		+		
10	10.	The EP management should provide evidence of the transparency of the EP management system.				
11	11.	The EP management should demonstrate the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, and fact-based decision-making.		+		
12	12.	The EP management should carry out risk management.		+		
13	13.	The EP management should ensure the participation of representatives of interested persons (employers, the faculty, students) in the collegial management bodies of the EP, as well as their representativeness in making decisions on the management of the educational program.		+		
14	14.	The university should demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals.		+		
15	15.	The EP management should demonstrate evidence of openness and accessibility to students, faculty, employers, and other stakeholders.		+		
16	16.	The EP management should be trained in educational management programs.		+		
17	17.	The EP management should strive to ensure that the progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.		+		
Total for standard			1	16	0	0
Standard "Information Management and Reporting"						
18	1.	The university should ensure the functioning of the system for collecting, analyzing and managing information based		+		

		on the use of modern information and communication technologies and software.				
19	2.	The EP management should demonstrate the systematic use of processed, adequate information to improve the internal quality assurance system.		+		
20	3.	Within the framework of the EP, there should be a system of regular reporting that reflects all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and sub-departments, and scientific research.		+		
21	4.	The university should establish the frequency, forms and methods of evaluating of the EP management, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects.		+		
22	5.	The university should demonstrate the definition of the procedure and ensuring the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision.	+			
23	6.	An important factor is the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.		+		
24	7.	The EP management should demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, including the existence of mechanisms for conflict resolution.		+		
25	8.	The university must ensure that the degree of satisfaction with the needs of the Faculty, staff and students within the EP is measured and demonstrate evidence of addressing the identified shortcomings.		+		
26	9.	The university should evaluate the effectiveness and efficiency of its activities, including in the context of the EP.		+		
		The information collected by the university should take into account:				
27	10.	key performance indicators;		+		
28	11.	dynamics of the students' contingent in the context of forms and types;		+		
29	12.	level of academic performance, students' achievement and dismissal;		+		
30	13.	students' satisfaction with the EP implementation and quality of education at the university;		+		
31	14.	availability of educational resources and support systems for students;		+		
32	15.	employment and career development of graduates;		+		
33	16.	students, employees and the Faculty must document their consent to the processing of personal data;		+		
34	17.	The EP management should facilitate the provision of all necessary information in the relevant fields of science;		+		

Total for standard			2	15	0	0
“EP development and approval” Standard						
35	1.	The university should define and document the procedures for the EPs development and their approval at the institutional level.		+		
36	2.	The EP management should ensure that the developed EPs meet the established goals including the expected learning outcomes.	+			
37	3.	The EP management should ensure the availability of the developed models of the EP graduate describing the learning outcomes and personal qualities.		+		
38	4.	The EP management should demonstrate the conducting of external examinations of the EP.		+		
39	5.	The qualifications obtained at the end of the EP should be clearly defined, explained and meet the certain level of the National Qualifications Framework		+		
40	6.	The EP management should determine the impact of disciplines and professional practices on formation of learning outcomes.	+			
41	7.	An important factor is the possibility of preparing students for professional certification.			+	
42	8.	The EP management should provide evidence of the participation of students, the faculty and other stakeholders in the EPs development ensuring their quality.		+		
43	9.	The EP labor intensity should be clearly defined in Kazakhstan credits and ECTS.		+		
44	10.	The EP management should provide the compliance of academic disciplines and learning outcomes with the level of study (bachelor, master and doctoral).		+		
45	11.	The EP structure should include various activities that correspond to the results of training.		+		
46	12.	An important factor is the availability of joint EP with foreign educational organizations.		+		
Total for standard			2	9	1	0
Standard "On-Going Monitoring and Periodic review of Educational Programmes"						
47		The university should conduct monitoring and periodic EP evaluation in order to ensure that the goal is achieved and meet the needs of students and society. The results of these processes are aimed at continuous EP improvement		+		
Monitoring and periodic evaluation of the EP shouldt consider:						
48	1.	the content of the programmes in the light of the latest science on specific discipline to ensure the relevance of courses taught;		+		
49	2.	changing needs of society and the professional environment;				
50	3.	load, performance and production students;		+		
51	4.	the effectiveness of assessment procedures of students;		+		
52	5.	expectations, needs and satisfaction of students with training on the EP;		+		

53	6.	educational setting and support services and their compliance with the EP objectives.		+		
54	7.	The University and the EP management should provide evidence of the participation of students, employers, and other stakeholders in the EP revision.		+		
55	8.	All interested parties should be informed of any actions planned or taken in relation to the EP. All changes made to the EP should be published.		+		
56	9.	The EP management should ensure that the content and structure of the EP are reviewed, taking into account changes in the labor market, the requirements of employers and the social demand of society.		+		
Total for standard			0	10	0	0
Standard "Student-centred Learning, Teaching and Performance Evaluation"						
57	1.	The EP management should ensure respect and attention to different groups of students and their needs, and provide them with flexible learning paths.		+		
58	2.	The EP management should ensure that various forms and methods of teaching and learning are used.		+		
59	3.	An important factor is the availability of our own research in the field of teaching methods of academic disciplines of the EP.		+		
60	4.	The EP management should demonstrate the existence of a feedback system for using various teaching methods and evaluating learning outcomes.		+		
61	5.	The EP management should demonstrate support for students' autonomy, while providing guidance and assistance from the teacher.		+		
62	6.	The EP management should demonstrate that there is a procedure in place to respond to student complaints.		+		
63	7.	The university should ensure consistency, transparency, and objectivity of the learning outcomes assessment mechanism for each EP, including appeal.		+		
64	8.	The university should ensure that the procedures for evaluating the learning outcomes of students of the EP comply with the planned learning outcomes and program goals. Criteria and methods of evaluation within the framework of the EP should be published in advance.		+		
65	9.	The University should define the mechanisms for ensuring that each EP graduate, develop learning outcomes and ensure the completeness of their formation.		+		
66	10.	Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area.		+		
Total for standard			0	10	0	0
Standard "Students"						
67		The university should demonstrate the policy of forming a contingent of students from admission to graduation and ensure transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) should be defined, approved, and published.		+		

68		The EP management should demonstrate that special adaptation and support programs are being implemented for newly enrolled and international students.		+		
69		The university should demonstrate that its actions comply with the Lisbon Convention.		+		
70		The university should cooperate with other educational organizations and national centers of the "European network of national information centers for academic recognition and mobility/National academic Recognition Information Centers " ENIC/NARIC to ensure comparable recognition of qualifications.		+		
71		The EP management should demonstrate 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.		+		
72		The university should provide opportunities for external and internal mobility of EP students, as well as assist them in obtaining external grants for training.		+		
73		The EP management should make the maximum amount of effort to provide students with places of practice, promote employment of graduates, and maintain communication with them.		+		
74		The university should provide the EP graduates 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.		+		
75		An important factor is monitoring the employment and professional activities of EP graduates.		+		
76		The EP management should actively encourage students to self-educate and develop outside of the main program (extracurricular activities).		+		
77		An important factor is the existence of a functioning alumni association.		+		
78		An important factor is the availability of a support mechanism for gifted students.		+		
Total for standard			0	12	0	0
Standard "Teaching Staff"						
79		The university should have an objective and transparent personnel policy, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.		+		
80		The university should demonstrate that the personnel potential of the Faculty corresponds to the development strategy of the university and the specifics of the EP.	+			
81		The company's management should demonstrate an awareness of responsibility for its employees and provide them with a favorable working environment.			+	
82		The EP management should demonstrate a change in the role of the teacher in connection with the transition to student-centered learning.		+		

83		The university should determine the contribution of the EP faculty to the implementation of the university's development strategy, and other strategic documents.		+		
84		The university should provide opportunities for career growth and professional development of EP faculty.			+	
85		The EP management should involve practitioners from relevant industries in teaching.		+		
86		The EP management should ensure targeted actions for the development of young teachers.		+		
87		The university should demonstrate motivation for the professional and personal development of EP teachers including encouraging both the integration of scientific activities and education, as well as the use of innovative teaching methods.			+	
88		An important factor is the active use of the Faculty the information and communication technologies in the educational process (for example, on-line training, e-portfolio, MOOC, etc.).		+		
89		An important factor is the development of academic mobility within the framework of the EP, attracting the best foreign and domestic teachers.		+		
90		An important factor is the involvement of the EP faculty to society (the role of the faculty in education, in science, in the region, creating cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).		+		
Total for standard			1	8	3	0

Standard “Educational Resources and Student Support Systems”						
91	1.	EP management should demonstrate the adequacy of material and technical resources and infrastructure.		+		
92	2.	EP management should demonstrate that there are procedures supporting different groups of the students, including information and counseling.		+		
<i>EP management should demonstrate that the information resources correspond to the specifics of the EP, including compliance with:</i>						
93	3.	technological support for the students and faculty in accordance with education programs (for example, online training, modeling, databases, data analysis programs);		+		
94	4.	library resources, including the collection of educational, methodological and scientific literature on general education, basic and core disciplines on paper and electronic media, periodicals, access to scientific databases;		+		
95	5.	Access to educational online resources		+		
96	6.	examination of the results of research, final papers and dissertations for plagiarism;		+		
97	7.	functioning of WI-FI on the territory of the educational organization.		+		
98	8.	The university should strive to ensure that the training equipment and software used for the EP study are analogous to those used in the relevant industries.		+		
99	9.	The university should ensure compliance with safety requirements in the learning process.		+		

100	10.	The university should strive to take into account the needs of different groups of students in the context of EP (adult, working, and foreign students, as well as students with disabilities).		+		
Total per standard			1	9	0	0
“Informing public” Standard						
<i>The information published by the university within the framework of the EP should be accurate, objective, relevant, and should include:</i>						
101	1.	implemented programs, indicating the expected learning outcomes;	+			
102	2.	information on the possibility of assigning a qualification at the completion of the EP;	+			
103	3.	information on teaching, training, and assessment procedures;	+			
104	4.	information on passing grades and educational opportunities provided to the students;	+			
105	5.	information on employment opportunities for graduates.	+			
106	6.	EP management should use a variety of ways to provide information (including mass media, web resources, information networks, etc.) in order to inform the general public and interested persons.		+		
107	7.	Public awareness should include support and clarification of the national programs for the country and the higher and postgraduate education system development	+			
108	8.	The university should publish audited financial statements on its own web resource.		+		
109	9.	The university should demonstrate the information characterizing the university as a whole and in the context of the EP on the web resource.	+			
110	10.	The availability of adequate and objective information about the faculty of the EP, in the context of personalities is an important factor.	+			
111	11.	Informing the public about cooperation and interaction with partners within the framework of the EP, including scientific/consulting organizations, business partners, social partners and educational organizations is an important factor.		+		
112	12.	The university should post information and links to external resources based on the results of external evaluation procedures.		+		
113	13.	The participation of the university and implemented EP in a variety of external evaluation procedures is an important factor.		+		
Total per standard			8	5	0	0
Standards in the context of individual specialties						
NATURAL SCIENCES, AGRICULTURAL SCIENCE, ENGINEERING, AND TECHNOLOGY						
<i>Education programs in the areas of Natural Sciences, Technical Sciences and Technologies, such as Mathematics, Physics, Information Systems, etc., should meet the following requirements:</i>						
114	1.	To familiarize the students with the professional environment and relevant issues in the field of specialization, as well as for the acquisition of skills based on theoretical training the program of education should include disciplines and activities aimed at obtaining practical experience and skills in general and core disciplines, including: - visits to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, educational-experimental establishments, etc.),		+		

		- conducting individual classes or entire disciplines at the enterprise of specialization, - conducting seminars to solve practical problems relevant to enterprises in the field of specialization, etc.				
115	2.	The faculty involved in the education program should include full-time teachers who have long-term experience as a full-time employee of enterprises in the field of specialization of the education program.		+		
116	3.	The content of all the EP disciplines should be based in one way or another and include a clear relationship with the content of fundamental natural sciences, such as mathematics, chemistry, and physics.		+		
117	4.	EP management should provide measures to strengthen practical training in the field of specialization.	+			
118	5.	EP management should provide training of the students in the field of modern information technologies application.		+		
Total per standard			1	4	0	0
TOTAL			16	98	4	0

