



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ  
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО  
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR  
ACCREDITATION AND RATING

# REPORT

on the results of the work of the external expert evaluation committee  
for compliance with the requirements of the standards of primary  
specialized accreditation of the educational program

«6B07103 - Electrical engineering»,

«7M07103 Electricity networks»,

«8D07103 Electrotechnical complexes and systems»

**S. Seifullin Kazakh Agro Technical University**

**from October 06 to 08, 2020**

**INDEPENDENT ACCREDITATION AND RATING AGENCY**

*External expert commission*

*Addressed to  
Accreditation  
the IAAR Council*



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**Nur-Sultan city**

**October 08, 2020**

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

EP	- educational program
GED	- general education disciplines
RO	- registrar's office
TC	- typical curriculum
CSIT	- center of scientific and information technologies
RW	- research work
QMS	- Quality Management System
RSE	- Republican state enterprise
BEM	- on the basis of economic management
ATS	- academic teaching staff
EDMS	- electronic document management system
MM	- mass media
NAS RK	- National Academy of Sciences of the Republic of Kazakhstan
RSM	- registration of student movement
EMCD	- educational and methodological complex of the discipline
SSWT	- student's self-study with a teacher
UNT	- unified national testing
CT	- complex testing
LLP	- limited liability partnership
JSC	- joint-stock company
SME	- state municipal enterprise
HE	- higher education
WI	- working instructions
SRW	- student's research work
SSC	- student scientific circles
SAC	- State Attestation Commission
WC	- working curriculum
RL	- research laboratory
RI	- Research Institute
RC	- research Center
ES	- emergency situation
SCT	- student construction team
HL	- healthy lifestyle
EMCS	- educational and methodical complex of specialties
SMCU	- scientific and methodological council of the university
SMBF	- scientific and methodological bureau of faculties
IC	- individual curriculum
CED	- catalog of elective disciplines
SIC	- student's individual code

## (II) INTRODUCTION

In accordance with order No. 71-20-OD of 07.09.2020 from October 06 to October 08, 2020, an external expert Commission assessed the compliance of “S. Seifullin KATU” JSC with the standards of primary specialized accreditation of the IAAR (dated February 24, 2017, No. 10-17-OD, fifth edition).

The report of the external expert Commission (EEC) contains an assessment of the compliance of the activities of “S. Seifullin KATU” JSC within the framework of primary specialized accreditation with the IAAR criteria, and recommendations of the EEC on further improvement of the parameters of specialized profile.

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

**Chairman of the Commission** - Andrey A. Bratsikhin, Doctor of Technical Sciences, Head of the Department "Food technologies and engineering" Of the Institute of living systems of the North Caucasus Federal University;

**Foreign expert** - Sergey Konstantinovich Filipov Dr. sc. ing., Professor, Abo Akademi University, Finland;

**Foreign expert** - Levykh Alyona Yurievna, Candidate of Biological Sciences, Associate Professor of the Ishim pedagogical Institute n.a. P. P. Yershov (branch) of the “Tyumen state University”;

**National Expert** - Rustem Tukenovich Omarov PhD, Head of the Department of Biology and biotechnology of L. N. Gumilyov Eurasian national University;

**National Expert** - Nurgazezova Alma Nurgazezovna, Candidate of Technical Sciences, Associate Professor of the Department of "Technology of food and processing industries" of Semipalatinsk state University n.a. Shakarim;

**National Expert** - Bakhytzhana Akhmetov, Doctor of Technical Sciences, Professor, Abay Kazakh national pedagogical University;

**National Expert** - Saule Sagnayeva, Candidate of Physical and Mathematical Sciences, Professor of the Department of Information systems of L. N. Gumilyov Eurasian National University;

**National Expert** - Mustafin Marat Askarovich, Doctor of Technical Sciences, Professor of Almaty University of energy and communications;

**National Expert** - Elibek Atrauovich Asangaliev, Candidate of Agricultural Sciences, Associate Professor of the Department "School of earth and environmental sciences" of the East Kazakhstan state technical University n.a. Serikbayev;

**National Expert** - Gabdulov Madi Assetovich, Candidate of Agricultural Sciences, Associate Professor of the Department of “Crop production and agriculture” of the West Kazakhstan agrarian and technical University n.a. Zhangir Khan;

**Employer** - Leyla Zhanaspayeva, Department of human capital development of the Chamber of entrepreneurs of Akmola region;

**Employer** - Zhantleuov Daniyar Amangeldinovich, Candidate of Agricultural Sciences, employee of the North Kazakhstan research Institute of animal husbandry and crop production;

**Student** - Mukash Nazgul, 2nd year master student of the specialty "MCM" of the Kazakh-British University;

**Student** - Aisulu Tolegenova, 4th year student of the specialty "Biology" of L. N. Gumilyov Eurasian national University;

**Student** - Tengebayev Askar, 1st year student of the L. N. Gumilyov Eurasian national University;

**Observer from the Agency** - Gulfiya Nazyrova, PhD in Economics, project Manager of the Agency.

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

“S. Seifullin Kazakh Agrotechnical University” NJSC "(hereinafter “University”) was founded in 1957. and is the oldest multidisciplinary university in the Republic of Kazakhstan. It acts on the basis of the Charter approved by the decision of the sole shareholder of the non-profit joint-stock company and the National Agricultural Research and Education Center No. 2 dated 05.02.2018, certificate of state re-registration of the legal entity No. 27738-1901-AK dated 10.07.2007.

The university provides training in 27 educational programs and specialties of bachelor's degree, 28 master's degree and 24 doctoral PhD degree.

The academic teaching staff of the university consists of 844 full-time teachers, including 83 doctors of sciences, 365 candidates of sciences, and 60 doctors of PhD.

New educational programs (hereinafter EP) bachelor's degree 6B07103 - "Electrical Engineering", master's degree 7M07103 - "Electrical networks", doctoral degree 8D07103 - "Electrical complexes and systems" were developed by the University in 2019 and are included in the Register of EP MES RK. The number of students on these Eps makes 47 in bachelor's degree, 11 in master's degree, 4 people for doctorate.

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

These educational programs are undergoing the accreditation procedure for the first time.

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

The work of EEC was carried out on the basis of the Program of on-line visit of the expert commission on primary specialized accreditation of the S. Seifullin Kazakh agrotechnical university during the period from 06 to 08 October, 2020.

In order to coordinate the work of the EEC, on 05.10.2020, an introductory meeting was held, during which powers were allocated among the members of the commission, the schedule of the visit was clarified, and an agreement was reached on the choice of examination methods.

In accordance with the standards the Program of the visit included the meeting with the Chairman of the Board, the Vice Chairman of the Board, heads of structural subdivisions, deans, heads of departments of the University, teachers and students as well as staff of different departments, interviewing, and questionnaires for teachers and students. A total of 125 people took part in the meetings (Table 1).

#### **Information about the employees and students who took part in the meetings with the EEC of the IAAR:**

Participant category	Number
Chairman of the Board	1
Vice Chairmen of the Board	5
Heads of structural subdivisions,	15
Deans of faculties	5
Heads of departments	8
Teachers	53
Students, postgraduates, doctoral students	38
Total	125

EEC members attended training lessons:

- on the discipline "Theoretical Foundations of Electrical Engineering" (teacher - professor Alpeisov E.A.

- on the discipline "Professional Kazakh language".

During the excursion, the members of the EEC got acquainted with the state of the material and technical base of the producing department "Power supply".

In accordance with the accreditation procedure, a questionnaire survey of teachers and students was carried out.

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

All conditions were created for the work of the EEC, access to all necessary information resources was organized. The team of S. Seifullin KATU ensured the presence of all persons indicated in the program of the visit, observing the established time interval.

## **(VI) CONFORMITY TO SPECIALIZED ACCREDITATION STANDARDS**

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

#### ***The evidence-based part***

EEC confirms that the management of EPs submitted for accreditation is ensured by an appropriate organizational structure and, in general, meets the criteria of the Standards for specialized accreditation of educational programs of higher educational institutions of NU "Independent Agency for Accreditation and Rating". The quality assurance policy reflects the link between research, teaching and learning (University website (<https://kazatu.kz>), section "Academic Policy"). On the basis of the strategic plan "KATU-2025" and the mission of the University, a strategic plan for the development of the Department of Power Supply, including the development of accredited EP, was developed, posted on the website of the Department.

#### ***Analytical part***

The quality assurance policy of the EP of bachelor's degree 6B07103 - "Electrical Engineering", master's degree 7M07103 - "Electrical networks", doctoral studies 8D07103 - "Electrical complexes and systems" is confirmed by: Development Strategy of the University "KATU 2025", Academic Policy (<https://kazatu.kz>), highly qualified specialists who develop and implement the EP.

The EP management demonstrated the functioning of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP, as well. individuality and uniqueness of the EP development plan, its consistency with national development priorities and the development strategy of the educational organization.

In an interview with the heads of departments, structural divisions, the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, decision-making based on facts, was revealed. This is also confirmed by the materials presented in the Self-Assessment Report.

The EP management presented evidence of the transparency of the educational program management system. All steps for the design and implementation of the EP are covered on the websites of the university and the department and are widely discussed. Interviews with students, teaching staff, employers showed their high interest in the formation of plans and content of the EP.

Quality assurance issues are covered in detail in the Strategy "KATU 2025", in the sections "Academic Policy" and "QMS" of the University website, materials of the releasing department. However, in accordance with the standard for specialized accreditation of the IAAR, the Quality

Assurance Policy should be presented in a separate document.

### ***Strengths / Best Practice***

The availability of three EPs in the field of electric power (bachelor's, master's, PhD), linked by a single development strategy, goals, educational infrastructure, the possibility of continuous training of top-level specialists;

The presence of a comprehensive development strategy of the University "KATU 2025", in addition to everything, determines the main directions of development of educational programs.

### ***EEC recommendations***

It is advisable to combine the materials on quality assurance, given in the Strategy "KATU 2025", in the sections of the University website, in the QMS materials, into a single document. (Criterion 1 of this standard: "The organization of higher and / or postgraduate education must have a published quality assurance policy").

***EEC conclusions by criteria: 7arestrong; 7aresatisfactory; 1suggests improvements.***

### ***6.2. "Information Management and Reporting" standard***

#### ***The evidence-based part***

During the accreditation process, it was revealed that the development of information systems, reporting and optimization of internal procedures are one of the priorities in the development of educational programs. The University has a system for collecting analysis and managing information on educational programs submitted for accreditation.

The main information resources of the University for information management and reporting are:

- the official website of the University (<https://kazatu.kz>);
- AIS "Platonus";
- ARTA electronic document management system.

The elements of these resources used to organize the learning process are sufficient and comply with the requirements of the Information Management and Reporting standard.

EEC notes that the management of the University and the EP track all key indicators of the functioning of the educational program. Students, teaching staff, employees take part in the provision, analysis and monitoring of information activities, as well as in the planning of events held at the university. Periodic assessment of the effectiveness and efficiency of activities in the context of educational programs is provided.

EEC experts confirm the existence of mechanisms for measuring the degree of satisfaction of the needs of teaching staff, staff and students within the EP. A regular survey of students, employees, teaching staff, employers is carried out, based on the results of which appropriate measures are taken to eliminate the shortcomings and improve the EP. Interviews with educators, business representatives and trainees showed that stakeholder suggestions and recommendations resonate with management decisions.

The data is stored in electronic and paper format in accordance with the nomenclature. The University has clearly defined the procedure and ensuring the protection of information, including those responsible for the accuracy and timeliness of information analysis and data provision. To prevent accidental loss of important documents, employees use notifications, duplication and copying of messages.

#### ***Analytical part***

EEC experts note that the heads of the EP, using modern infocommunication technologies, get the opportunity to adequately manage information and make informed decisions, which has a

positive effect on the quality of the EP.

The University understands the need for continuous improvement of technical resources for information management and reporting.

Within the framework of the digitalization project of University "DigitalKATU", the "ISUniverProf" program is being implemented, which allows integrating educational, research and educational functions into a single platform. A comprehensive solution allows to automate the accounting, storage, processing and analysis of information about the main processes of a higher educational institution: admission to a university, training, payment for tuition, graduates' graduation and employment, calculation and distribution of the workload of the academic teaching staff, reporting, as well as management of scientific work and innovation, university campus, personal accounts (applicant, student, teacher). Accelerating this process will positively impact information management and reporting at the University.

An educational portal is open for students, where all library resources are available. The processes of receiving and delivering literature are fully automated. The entire library resource of the university is available in electronic format; equipment for quick scanning of interesting materials is installed in the reading rooms. However, the growing volume of scientific and technical information requires more complete access to indexed foreign publications of undergraduates and doctoral students, both from the standpoint of obtaining information and with the aim of publishing the results of their research.

#### ***Strengths / Best Practice***

- authorities' understanding of the importance of assessing the effectiveness and efficiency of activities in the context of the EP;
- continuous improvement of technical resources for information management and reporting;
- the availability of feedback mechanisms between the university leadership, teachers of departments and students;

#### ***EEC recommendations***

To make fuller use of the University's capabilities to increase the volume of information support for doctoral and graduate students (obtaining information about new publications, directions and results of scientific research abroad, assistance in publications, etc.).

***EEC conclusions by criteria: 10 are strong; 6 are satisfactory.***

#### ***6.3. "Development and approval of educational programs" standard***

##### ***The evidence-based part***

The accredited EP of bachelor's degree 6B07103 - "Electrical engineering", master's degree 7M07103 - "Electrical networks", doctoral degree 8D07103 - "Electrical complexes and systems" were developed by University and were included in the Register of EP MES RK in 2019.

The EP are provided with educational and methodological documentation in accordance with the requirements of the Ministry of Education and Science of the Republic of Kazakhstan: state compulsory education standards; standard and working curricula of specialties; typical curricula of disciplines and syllabuses. All materials are posted on the University website, in the AIS "Platonus", that is, they are publicly available.

In the course of the commission's work, the heads and developers of the EP quite fully disclosed the contents of the EP, the sequence of their development and approval. The procedure for planning, developing and approving, making changes and further improving the EP complies with the regulatory documents governing the implementation of educational programs and is available to all participants in the educational process - teaching staff, employers, students.

The content of educational programs corresponds to the goals and objectives defined for each EP. Experts note that the content of the educational programs, the sequence of their implementation correspond not only to regulatory requirements, but also to the demands of the labor market.

For all three educational programs, a model of an EP graduate was built, in which the sphere and objects of the graduate's professional activity, basic and professional competencies, as well as social and personal competencies are determined.

Complete information was received on the conclusion of long-term contracts with organizations that are the bases of practices and internships in the direction of the EP; electric power enterprises, scientific research, experimental design organizations and industrial enterprises, equipped with modern electrical equipment, information and measuring equipment.

In general, the EPs under consideration correspond to the "Development and approval of an educational program" Standard, the sequence of their implementation, the depth of development in all specialties of training meet the criteria of the Standard.

### ***Analytical part***

When developing the EP, the basic, professional and socio-personal competencies given in the graduate's model were taken as a basis. The competencies of EP graduates should be dictated by professional standards developed by RPE "Atameken". During the development and approval of the EP, this connection is not clearly visible. Discussions with individual employers are not enough. The process of forming professional standards has been delayed in Kazakhstan, especially in terms of project activities in the electric power industry. During the interview, it turned out that not all EP developers and teachers who implement them understand the primacy of the importance of professional standards.

Analysis of the content of the developed educational programs showed that it complies with the normative documents of the Ministry of Education and Science of the Republic of Kazakhstan, including a description of learning outcomes and key competencies acquired by students. However, the types of professional activities of the masters of EP 7M07103 - "Electric Networks" are formulated only for the profile magistracy (production and technology; design and technology; organizational and management). For a scientific pedagogical magistracy, the main activity is, accordingly, scientific and pedagogical.

### ***Strengths / Best Practice***

- procedures for the development of the EP and their approval at the institutional level are clearly regulated and documented;
- compliance of the developed EP with the established goals, including the expected learning outcomes;
- the presence of developed models of the EP graduate, describing the learning outcomes and personal qualities;
- the content of academic disciplines and learning outcomes corresponds to the level of education (bachelor's, master's, doctoral studies);
- the influence of disciplines and professional practices on the formation of learning outcomes is determined.

### ***EEC recommendations***

1. To monitor the content of professional standards, the development of which continues by RPE "Atameken", in order to improve the competence model of the graduate
2. Clarify (differentiate) the goals and objectives of the EP 7M07103 "Electric Networks" for the profile and scientific and pedagogical areas of the magistracy.

***Conclusions of the EEC on the criteria: 7 are strong; 5 are satisfactory.***

#### 6.4. "Continuous monitoring and periodic evaluation of educational programs" standard

##### ***The evidence-based part***

Within the framework of this standard, it should be noted that University pays great attention to monitoring new EP, control of their content and the quality of implementation.

Monitoring and periodic evaluation of the EP content include: the content of the programs in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the taught discipline; changes in the needs of society and the professional environment; workload, student performance; educational environment and support services and their compliance with the objectives of the EP. The quality of the programs of the proposed elective disciplines is ensured by a systematic examination of educational and methodological complexes of disciplines, conducted according to the work plan of the department and, at least once a year, by the examination of the educational and methodological council of the faculty. The monitoring of the structure and content of EP is carried out by employers on the basis of examination of modules, curricula, catalogs of elective disciplines.

To control the quality of teaching and the level of knowledge of students, the department (EP self-assessment, journal of mutual visits, the schedule of open classes, minutes of department meetings) and university (knowledge slices, monitoring of students, teaching staff and employers) control are regularly carried out. The practice of reviewing educational programs and catalogs of elective disciplines by employers.

To determine the level of students' satisfaction with the content and implementation of the educational program, University conducts a survey of students studying at this EP every academic period.

The University authorities have demonstrated its openness and accessibility for students, teaching staff, employers: there is access to the leadership of any level of management on personal matters, meetings with the rector are held on a systematic basis. The University also has a virtual reception area, which includes the Rector's blog and social media pages.

##### ***Analytical part***

The analysis of compliance of the accredited EPs with the "Continuous Monitoring and Periodic Evaluation of Study Programs" standard is difficult and incomplete within the framework of primary accreditation, when there is no analysis of the main indicators: the results of the final certification (SAC), employment, comparative data on recruitment for these EPs. There is no feedback from employers either who have received graduates.

However, the experience of University and the graduating department in other specialties allows experts to believe that these issues will be resolved for new EP. The results of the first set of trainees and the opinions of employers expressed in interviews also confirm this.

##### ***Strengths / Best Practice***

- regular monitoring and periodic assessment of the EP using various mechanisms;
- significant work experience in the employment of graduates and the presence of connections with employers.

##### ***EEC recommendations***

- when monitoring the implementation of educational programs, to pay special attention to the content and quality of new EPs;
- in advance to strengthen interaction with employers to assist in employment of graduates of new EPs.

***Conclusions of the EEC by criteria: 5 are strong; 4 are satisfactory.***

## 6.5. "Student-centered learning, teaching and assessment of progress" standard

### ***The evidence-based part***

In general, the EP managers of this cluster demonstrate the orientation of training to the student. The entire educational process is built from this point of view at the University.

The study of regulatory documents and procedures by experts confirms that the EP management not only provides students with opportunities to form an individual educational trajectory, but also provides them with full methodological and organizational support. An individual educational trajectory consists of compulsory, optional, corrective and organizational parts. The compulsory part includes the main modules for studying that correspond to the standard EP curriculum. The variable part includes a set of modules and their constituent parts, which the student chooses for study, depending on the areas of interest he is interested in. The compulsory and optional parts determine the content of the training.

The corrective and organizational part is aimed at assisting students in choosing the disciplines of the variable part, and also determining the forms, methods, technologies, means, control of the study of the selected content. Responsible for each component of the individual learning path were determined: dean's office, departments, advisors.

The procedures for assessing the level of knowledge of students at the University correspond to the planned learning outcomes and the EP goals. Assessment of knowledge, skills and professional competencies of students is carried out in accordance with the rules of credit training technology. All information on the assessment of students, including current, intermediate, final control, is transparent and available in AIS Platonus.

The syllabuses of disciplines reflect the criteria for assessing students' knowledge of current control. Exam forms include computer testing, written exam or listening (for language disciplines).

The final certification of students at the University is determined by the Rules of credit technology of education, is carried out according to the forms determined by the QMS for the EP of higher and postgraduate education and is carried out within the timeframes provided for by the academic calendar and approved work curricula. The reliability of graduation theses, master's theses is assessed by checking them for plagiarism. Doctoral dissertations are subject to external review through "NCSTE" JSC.

The EP management ensures the possibility and efficiency of the mechanism for appealing the results of control (appeal), which is confirmed by the students - interview participants. Students' appeals to dean's offices and other structural divisions on other issues are also analyzed in detail and appropriate measures are taken on them.

### ***Analytical part***

Criterion 11.2.2 of this Standard determines that "EP management should provide for the use of various forms and methods of teaching and learning." In general, this criterion of the Standard is fulfilled by University.

Currently, the most urgent is the introduction and development of distance learning forms and technologies. EEC notes that "University has all the possibilities of using distance learning technologies. The development plans of all EPs should include items on the organizational, methodological and technical aspects of the development of distance learning forms and technologies. This concerns the definition of platforms (Zoom, Teams, Google meet, others), academic teaching staff and students, preparing methodological support, etc.

During the study of reports, documentation, visual visits and interviews, it was not possible to determine what activities (material, methodological, organizational) are carried out to ensure the education of students with special needs - with certain physical disabilities. This is one of the important indicators of student-centered learning.

An important factor in assessing this standard is the availability of our own research in the field of teaching methods of educational disciplines EP. The analysis of the publications of the teaching staff of the department, along with a large number of serious scientific works, showed the practical absence of work on the methodology of teaching basic and special disciplines, issues of organizing the educational process. In-house innovations in this matter are easier to implement than those brought in from outside.

#### ***Strengths / Best Practice***

- well-organized assistance in drawing up students' individual learning paths;
- availability, transparency of current, intermediate, final control and the possibility and effectiveness of the appeal mechanism;

#### ***EEC recommendations***

- to include in the EP development plans items on the organizational, methodological and technical aspects of the development of distance forms and learning technologies;
- to strengthen work on the material, organizational and methodological support of teaching students with disabilities.

***Conclusions of the EEC according to the criteria: 6arestrong; 4aresatisfactory.***

### 6.6. "Students" standard

#### ***The evidence-based part***

The contingent of students at the EP 6B07103 - "Electrical Engineering" is 47 people, 21 of which study in the state language, 26 students study in Russian. 11 people study in the master's degree at the EP 7M07103 - "Electrical networks", 4 people study in doctoral studies at the EP 8D07103 - "Electrical complexes and systems".

EEC determined that the EP management demonstrates the policy of forming the contingent of EP students from admission to graduation and ensures the transparency of its procedures.

The contingent of students is formed when people are admitted to the number of students who are most prepared for studying at the university, who consciously chose the direction of energy, who received the required number of points according to the results of the UNT, graduates of general secondary schools, CTA graduates of secondary specialized education on the basis of a state order (grant) and on a commercial basis, as well as specialists with diplomas for obtaining a second higher education on the basis of an interview. Applicants can familiarize themselves with the admission rules on the website [www.kazatu.kz](http://www.kazatu.kz).

The movement of the contingent occurs as a result of expulsion, transfer, restoration of students, abandonment for a second year of study and granting academic leave. The EEC experts certify that deductions, transfers, restoration of students, abandonment for a second year of study and granting academic leave are carried out on the basis of the "Methodological instructions on the procedure for expulsion, transfer, reinstatement and granting of academic leave of students of S. Seifullin KATU and comply with the rules of credit technologies.

The available material and technical, information resources, human resources of the EP allow to establish the optimal group size when conducting seminars, practical and laboratory classes. In an interview with teaching staff and students, it was found that the minimum number of students in an elective discipline is determined by organizational and economic feasibility.

Extracurricular and educational work is a complex system that includes sports, student government, amateur performances, student science. This system includes various structural divisions that provide a comprehensive coverage of student life, including life in dormitories.

EEC notes that University and the EP management demonstrate the availability of special adaptation and support programs for newly admitted and foreign students. After the formation of the

contingent, in the academic calendar for the first courses, the first week is allocated for training and informing newly enrolled students about the rules of credit technology. This includes general issues of the organization of the educational process, issues of planning by students of the IC, acquaintance of students with a guidebook, CED by specialty, forms of educational documentation, etc. Students - foreigners are included in multilingual groups that arrived from China and Mongolia - in groups with training in the language.

An important factor is also the availability of support programs for talented students and their ability to continue their education in educational programs of postgraduate education in master's degree and doctoral studies.

### ***Analytical part***

Experts of the EEC IAAR note that University has a transparent policy for the formation of the contingent of students, approved procedures regulating the life cycle of students.

During the interview with the students, the commission determined that most of them consciously chose this educational program upon admission. At the same time, in a number of cases, the role was played by vocational guidance work carried out by University in the region and beyond. However, the current state of infocommunication technologies makes it possible to expand the geography and use more diverse forms of career guidance work (in particular, use the Zoom, Teams, Google meet, and others platforms).

In the SWOT analysis according to this standard (Self-accreditation Report), a large contingent of students is identified as a weak side, while the strong side is a high potential demand for EP graduates. This contradiction is resolved not only by the content of the EP, but also by the correct organization of the educational process as a whole.

In accordance with this Standard, the University must provide for the possibility of providing EP graduates with documents confirming the acquired qualifications, including the achieved learning outcomes, as well as the content, content and status of the education received and evidence of its completion. This item is carried out according to the documents for obtaining an academic degree. EP managers need to adopt and implement a program for graduates to obtain industrial qualifications - in the course of practical training, separate training courses.

### ***Strengths / Best Practice***

- the available material and technical, information resources, human resources of the EP, which allow optimal formation of the contingent;
- the existence of a policy for the formation of the contingent of students in the context of EP from admission to graduation with certain and published procedures;
- transparency and efficiency of the procedures for the formation of the contingent of students.

### ***EEC recommendations***

- to expand the geography and diversify the forms and technologies of career guidance work.

***Conclusions of the EEC according to the criteria: 9arestrong positions;5aresatisfactory.***

## **6.7. "Academic teaching staff" standard**

### ***The evidence-based part***

The staff of the ATS of the graduating department consists of 25 employees, 4of which are Doctors of technical sciences, 1 is Doctor of PhD, 10 are Candidates of technical sciences. The basic education of all teachers corresponds to the profile of the department and the content and level of the EP presented for accreditation.

Experts confirm that, in addition to full-time teachers, competent specialists from production environment (“Tavrida Electric Astana” LLP, “RPC Energoservice” LLP, Akmola IDEN of “APDC” JSC) are involved in conducting bachelor's and master's studies. Invitation of leading foreign scientists is practiced.

Regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan and internal documents of University (such as "Regulations on competitive replacement of positions of the ATS", "Internal labor regulations", "Personnel management", etc.) are posted on the University website. The results of the interviews with the ATS confirm that all the normative documents and job descriptions of the ATS are available at the departments, the teachers are familiar with them.

In order to increase the motivation of ATS, the university operates a rating system for evaluating the activities of ATS and financial support for proactive teachers: The Regulations on the contests "Best curator of the year", "Best teacher of the year" have been developed and are in effect. Based on the results of the work for the academic year, for the successful conduct of the admission campaign, for the contribution to the use of innovative technologies in teaching process, participation in certification, accreditation, scientific results, teachers are rewarded for anniversaries and official public holidays.

### ***Analytical part***

EEC experts state that the academic teaching staff implementing the accredited EP meets the qualification requirements for licensing educational activities.

In general, University pays great attention to maintaining the qualifications of the teaching staff at the level of modern achievements in science and technology. However, in accordance with the documents submitted by the University to the EEC, the teachers of the graduating department of accredited EP did not undergo advanced training in 2018-2020. This is a planning mistake, since the Law on Education of the Republic of Kazakhstan presupposes the study of advanced training programs at least once every 5 years and the entire ATS of the department will have to undergo Advanced training in 2021.

The development of new educational programs is a significant work that is not measured in hours in the assignment of the load. The experts failed to find out how the University authorities determine and how they evaluate the contribution of the ATS to the development and implementation of new EPs.

There is an insufficient level of external and internal academic mobility in the cluster and the attraction of the best foreign and domestic teachers. In this regard, the management of the accredited EP needs to intensify the participation of teachers in academic mobility programs; expand opportunities for international cooperation and exchange of experience with foreign and domestic colleagues.

### ***Strengths / Best Practice***

- the presence of an objective and transparent personnel policy, ensuring the professional competence of the entire staff of the ATS;
- providing opportunities for career growth and professional development of the ATS of the EP;
- Involvement in teaching of practitioners of the relevant industries in accredited EP;
- the current system of motivation for the professional and personal development of teachers from University and the management of the EP.

### ***EEC recommendations***

- to strengthen the work on the development of academic mobility of teaching staff and attracting the best foreign and domestic scientists to the implementation of the educational process.

- to strengthen measures of motivation for specific teachers involved in the development and implementation of new educational programs.

***EEC conclusions by criteria: 8 are strong; 1 is satisfactory.***

#### 6.8. "Educational resources and student support systems" standard

##### ***The evidence-based part***

EEC experts confirm that University has sufficient material, technical, informational and library resources for the implementation of the accredited EP. There is a noticeable tendency of constant updating and increasing of these resources. There is a mechanism for assessing the development of material and technical resources and information support.

The educational process of students of accredited programs is organized in specialized classrooms (Classrooms No. 1214, 1238, 1241, 1120, 1127, 1126, 1121, 1122). Classrooms: 1225, 1231, 1236, computer classes (rooms 1216, 1237).

Seven specialized laboratories for the EP disciplines are equipped with operating installations, demonstration stands and instrumentation and have sufficient capacity for laboratory studies. The educational process in the laboratories is equipped with software, teaching aids, textbooks, methodological instructions.

A library is located in the building of the main building and in other buildings of the S. Seifullin Kazakh Agro-Technical University, an electronic reading room is equipped. Students have free access to computers. There is a reading room, a computer room (with Internet access), an electronic library, which includes electronic literature on the disciplines of the accredited EP. All EMCD of the EP in electronic form are posted on the university portal, to which each student has access through his personal account.

The department has all the educational and methodological documentation (SCES, typical and working curricula, typical curriculum for disciplines and syllabuses) necessary for the preparation of bachelor's, master's and doctoral students.

##### ***Analytical part***

Information educational resources of University are the official website of the University (<https://kazatu.kz>), AIS "Platonus", an electronic library. The Report notes the implementation of virtual laboratory work in a number of basic and special disciplines accredited by the EP. However, during the visit it was not found out whether the students have the opportunity to perform these works remotely, whether they have access to the applied programs "ElektroniksWorkbench", "Mathcad", "MathLAB" and similar. This aspect becomes important in connection with the need to introduce distance learning technologies.

Experts note that University has a sufficient number of classrooms equipped with modern technical teaching aids for the implementation of the accredited EP, including educational and scientific laboratories. The content of the Report, Appendices and analysis of the results of the EEC visit confirm the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students. As an area of improvement, the heads of the accredited EP noted the growth of the material base, the renewal of computer equipment. However, in the Report and in the EP Development Plans there is no specific (by years) plan for the development of the material base of the EP, which is a determining factor for new EPs.

##### ***Strengths / Best Practice***

- growth of the financial stability of University, which makes it possible to strengthen the material and technical base of the accredited EP;

- strong educational resources of the EP (methodological and laboratory base, the personnel of the ATS), historically formed today.

### ***EEC recommendations***

- to increase attention to the material and methodological support of distance learning technologies, including the introduction of applied computer programs;
- to concretize plans for the development of the EP in terms of improving the material base of the EP.

***EEC conclusions by criteria: 2 are strong; 6 are satisfactory.***

### ***6.9. “Public Information” standard***

#### ***The evidence-based part***

EEC established that the official website of University (<https://kazatu.kz>) is the main channel for informing the public. A student television studio operates at the site's press center. Materials about all important university events are published in republican and regional newspapers and magazines, as well as broadcast on television.

In addition, University has its own Facebook page, where the results of the educational, scientific and cultural activities of the university are presented. The faculties of the university as well as the selection committee also have separate pages on social networks. The university publishes the newspaper "Менің Университетім" (“My University”).

The authorities of University and the EP encourage a variety of ways to spread information, including the media, information networks to inform the general public and stakeholders. Thus, the preparation of image articles in the republican, industry media, radio or TV appearances, as well as publications about the activities of KATU on its own or official page in social networks, on the G-Global platform and other platforms are taken into account in the final ATS rating for premiums.

University uses other means of disseminating information, for example, open days, job fairs, alumni meetings, briefings by management, round tables with leaders of enterprises and organizations. An important tool is the participation of the University in a variety of procedures for external evaluation of educational activities.

EEC experts note that the most fully reliable, objective, relevant information about new educational programs (expected learning outcomes of the educational program being implemented; qualifications that will be awarded upon completion of the educational program, teaching and learning approaches, procedures, methods and forms of assessing student success, information about employment opportunities for graduates) is given by the official website of the University.

#### ***Analytical part***

The republican and regional media publish and announce materials about all important university events, conferences, cooperation and interaction with university partners. However, in order to develop new EPs, more specific materials are needed about their features, content, prospects of graduates of these programs.

#### ***Strengths / Best Practice***

- The EP management actively uses a variety of ways to disseminate information to inform the general public and stakeholders;
- The university is actively involved in a variety of external evaluation procedures.

***Conclusions of the EEC on the criteria: 7 are strong; 3 are satisfactory.***

## 6.10. "Standards in the context of individual specialties" standard

### ***The evidence-based part***

The content of professional activity according to the EP 6B07103 - "Electrical Engineering", 7M07103 - "Electrical Networks", 8D07103 - "Electrical Complexes and Systems" is reflected in such competencies as:

- high-quality organization and process management;
- development and implementation of optimal technologies in the electric power industry;
- effective use of materials, equipment, algorithms and programs for selecting and calculating the parameters of technological processes.

The examination by experts of the modular curricula of the EP 6B07103 - "Electrical Engineering", 7M07103 - "Electrical Networks", 8D07103 - "Electrical Complexes and Systems" confirms that the EP includes a number of special disciplines aimed at gaining practical experience and skills on the specialty. The laboratory practice in them is performed on the equipment used in real production, or the most adequate models. At the same time, the content of all EP disciplines is based on the content of fundamental natural sciences.

Experts confirm that, in addition to full-time teachers, competent specialists from production environment ("Tavrda Electric Astana" LLP, "RPC Energoservice" LLP, Akmolat IDEN of "APDC" JSC) are involved in conducting bachelor's and master's studies.

Programs and practice bases of students contribute to the acquisition of practical skills in accordance with the acquired competencies.

### ***Analytical part***

Based on the results of the analysis, the EEC members believe that the lecture material highlighted domestic and foreign best practices and provides examples of modern achievements in the relevant field. Considering also the content of the laboratory workshop in special disciplines, experts confirm the presence of practice-oriented disciplines in the educational process. The goals and learning outcomes developed by the EP management are of a general professional nature, are specified in accordance with the goals and in the context of each discipline.

### ***Strengths / Best Practice***

- the focus of the development and organization of the EP on the acquisition of practical general professional competencies.

***EEC conclusions by criteria: 3 are strong; 2 are satisfactory.***

## **(VII) OVERVIEW OF RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY**

### **“Educational program management” standard:**

It is advisable to combine the materials on quality assurance, given in the Strategy "KATU 2025", in the sections of University website, in the QMS materials, into a single document. (Criterion 1 of this standard: "The organization of higher and / or postgraduate education must have a published quality assurance policy").

### **“Information Management and Reporting” standard**

To make fuller use of the University's capabilities to increase the volume of information support for doctoral and graduate students (obtaining information about new publications, directions and results of scientific research abroad, assistance in publications, etc.).

### **"Development and approval of educational programs" standard**

1. To monitor the content of professional standards, the development of which continues by RPE "Atameken", in order to improve the competence model of the graduate

2. To clarify (differentiate) the goals and objectives of the EP 7M07103 "Electric Networks" for the profile and scientific and pedagogical directions of the magistracy.

### **"Continuous monitoring and periodic evaluation of educational programs" standard**

- when monitoring the implementation of educational programs, to pay special attention to the content and quality of new EPs;

- in advance to strengthen interaction with employers to assist in employment of graduates of new EPs.

### **"Student-centered learning, teaching and assessment of progress" standard**

- to include in the EP development plans items on the organizational, methodological and technical aspects of the development of distance forms and learning technologies;

- to strengthen work on the material, organizational and methodological support of teaching students with disabilities.

### **"Students" standard**

- to expand the geography and diversify the forms and technologies of career guidance work.

### **"Academic teaching staff" standard**

- to strengthen the work on the development of academic mobility of teaching staff and attracting the best foreign and domestic scientists to the implementation of the educational process.

- to strengthen measures of motivation for specific teachers involved in the development and implementation of new educational programs.

### **"Educational resources and student support systems"**

- to increase attention to the material and methodological support of distance learning technologies, including the introduction of applied computer programs;

- to concretize EP development plans in terms of improving the EP material base.

### **“Public Information” standard**

- absent.

## RECOMMENDATION TO THE ACCREDITATION BOARD

The members of the external expert commission came to the unanimous opinion that the educational program 7M08103 "Vegetable growing in protected ground"

Commission chairman \_\_\_\_\_  
Foreign expert \_\_\_\_\_  
Foreign expert \_\_\_\_\_  
Employer Representative \_\_\_\_\_  
Employer Representative \_\_\_\_\_  
Student Expert \_\_\_\_\_  
Student Expert \_\_\_\_\_  
Student Expert \_\_\_\_\_  
Observer from the Agency \_\_\_\_\_

**Appendix 1. Evaluation table "PARAMETERS OF THE PRIMARY SPECIALIZED PROFILE"**

No.	No.	Criteria for evaluation	Position of the educational organization			
			Strong	Satisfactory	Suggests improvement	Unsatisfactory
<b>"Educational program management" standard</b>						
1	1.	The organization of higher and / or postgraduate education must have a published quality assurance policy. The quality assurance policy should reflect the link between research, teaching and learning.			+	
2	2.	The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP.	+			
3	3.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint / double degree education and academic mobility.		+		
4	4.	The EP management demonstrates its readiness to ensure transparency in the development of the EP development plan based on an analysis of its functioning, the actual positioning of the OE and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders. The plan must contain the timing of the start of the implementation of the educational program.	+			
5	5.	The EP management demonstrates the existence of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of the EP.	+			
6	6.	EP management should involve representatives of stakeholder groups, including employers, students and teaching staff, in the formation of the EP development plan.	+			
7	7.	The EP management must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education.		+		
8	8.	The organization of higher and (or) postgraduate education must demonstrate a clear definition of those responsible for business processes within the EP, an unambiguous distribution of staff duties, and the delineation of functions of collegial bodies.		+		
9	9.	EP management must provide evidence of the transparency of the educational program management system.	+			
10	10.	EP management must demonstrate the existence of an internal EP quality assurance system, including its design, management and monitoring, their improvement, decision making based on facts.	+			
11	11.	The EP's management must carry out risk management, including within the framework of the EP undergoing primary accreditation, as well as demonstrate a system of measures aimed at reducing the degree of risk.		+		
12	12.	The EP management must ensure the participation of		+		

		representatives of employers, teaching staff, students and other interested parties in the collegial management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program.				
13	13.	The OEmust demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals.		+		
14	14.	EP management must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties.	+			
15	15.	EP management should be trained in educational management programs.		+		
<b>Total by standard</b>			<b>7</b>	<b>7</b>	<b>1</b>	
<b>“Information Management and Reporting” standard</b>						
16	1.	The OE must demonstrate that it has a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software and that it uses a variety of methods to collect and analyze information in the context of the EP.	+			
17	2.	EP management must demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.		+		
18	3.	EP management must demonstrate fact-based decision making.	+			
19	4.	Within the EP, a system of regular reporting should be provided that reflects all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research.	+			
20	5.	The OE should establish the frequency, forms and methods for assessing the EP management, the activities of collegial bodies and structural units, top management, and the implementation of scientific projects.	+			
21	6.	The OE must demonstrate the determination of the order and ensuring the protection of information, including the identification of persons responsible for the accuracy and timeliness of the analysis of information and the provision of data.		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.	+			
23	8.	EP management must demonstrate the existence of a communication mechanism with students, employees and other stakeholders, as well as mechanisms for resolving conflicts.	+			
24	9.	The OE must demonstrate the existence of mechanisms for measuring the degree of satisfaction of the needs of teaching staff, personnel and students within the EP.		+		
25	10.	The OE should provide for an assessment of the effectiveness and efficiency of activities, including in the context of EP.		+		
		The information intended for collection and analysis within the EP should take into account:				
26	11.	key performance indicators;	+			
27	12.	dynamics of the contingent of students in the context of forms and types;	+			

28	13.	academic performance, student achievement and expulsion;	+			
29	14.	satisfaction of students with the implementation of the EP and the quality of education at the university;		+		
30	15.	availability of educational resources and support systems for students.		+		
31	16.	The OE must confirm the implementation of procedures for processing personal data of students, employees and teaching staff on the basis of their documentary consent.	+			
<b>Total by standard</b>			<b>10</b>	<b>6</b>		
<b>“Development and approval of basic educational programs” standard</b>						
32	1.	The OE should define and document procedures for the development of the EP and their approval at the institutional level.		+		
33	2.	EP management must ensure that the developed EP meets the established goals, including the expected learning outcomes.	+			
34	3.	EP management must ensure the availability of developed models of the EP graduate, describing the learning outcomes and personal qualities.		+		
35	4.	EP management must demonstrate the conduct of external examinations of the EP content and the planned results of its implementation.	+			
36	5.	The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NQF.	+			
37	6.	EP management must determine the impact of disciplines and professional practices on the formation of learning outcomes.		+		
38	7.	An important factor is the ability to prepare students for professional certification.		+		
30	8.	EP management must provide evidence of the participation of students, teaching staff and other stakeholders in the development of the EP, ensuring their quality.		+		
40	9.	The complexity of the EP should be clearly defined in Kazakhstani credits and ECTS.	+			
41	10.	EP management must ensure that the content of academic disciplines and the planned results are consistent with the level of education (bachelor's, master's, doctoral studies).	+			
42	11.	The structure of the EP should provide for various activities that ensure the achievement of the planned learning outcomes by students.	+			
43	12.	An important factor is the correspondence between the content of the EP and the learning outcomes of the EP, implemented by organizations of higher and (or) postgraduate education in the EHEA.	+			
<b>Total by standard</b>			<b>7</b>	<b>5</b>		
<b>“Continuous monitoring and periodic evaluation of basic educational programs” standard</b>						

44	1.	The OE should determine the mechanisms for monitoring and periodic evaluation of the EP in order to ensure the achievement of the goal and meet the needs of students and society. The results of these processes should be aimed at continuous improvement of the EP.	+			
		Monitoring and periodic evaluation of the EP should include:				
45	2.	the content of the programs in the light of the latest achievements of science in a particular discipline to ensure the relevance of the taught discipline;		+		
46	3.	changes in the needs of society and professional environment;	+			
47	4.	workload and performance of students;	+			
48	5.	effectiveness of student assessment procedures;	+			
49	6.	expectations, needs and satisfaction of students with EP training;		+		
50	7.	educational environment and support services and their compliance with the objectives of the EP.	+			
51	8.	The OE, EP management must define a mechanism for informing all interested parties about any planned or taken actions in relation to the EP.		+		
52	9.	All changes made to the OP must be published. EP management must develop a mechanism for revising the content and structure of the EP, taking into account changes in the labor market, employers' requirements and the social demand of society.		+		
<b>Total by standard</b>			<b>5</b>	<b>4</b>		
<b>“Student-centered learning, teaching and assessment of progress” standard</b>						
53	1.	EP management must ensure respect and attention to various groups of students and their needs, provide them with flexible learning paths.	+			
54	2.	EP management should provide for the use of various forms and methods of teaching and learning.	+			
55	3.	An important factor is the presence of our own research in the field of teaching methods of educational disciplines EP.		+		
56	4.	EP management must demonstrate the existence of feedback mechanisms on the use of various teaching methods and assessment of learning outcomes.	+			
57	5.	EP management must demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher.		+		
58	6.	EP management must demonstrate the existence of a procedure for responding to student complaints.	+			
59	7.	The OE must ensure consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including appeal.	+			
60	8.	The TOE must ensure that the procedures for assessing the learning outcomes of EP students are consistent with the planned results and program objectives. Criteria and assessment methods within the EP must be published in advance.	+			
61	9.	In the OE, mechanisms must be determined to ensure the achievement of learning outcomes by each EP graduate and the completeness of their formation must be ensured.		+		

62	10.	Evaluators should be familiar with modern methods of assessing learning outcomes and regularly improve their qualifications in this area.		+		
<b>Total by standard</b>			<b>6</b>	<b>4</b>		
<b>“Students” standard</b>						
63	1.	The OE must demonstrate the existence of a policy for the formation of the contingent of students in the context of EP from admission to graduation and ensure the transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) must be defined, approved, published.	+			
		EP management should determine the procedure for the formation of the contingent of students based on:				
64	2.	minimum requirements for applicants;	+			
65	3.	maximum group size for seminars, workshops, laboratory and studio sessions;	+			
66	4.	forecasting the number of government grants;	+			
67	5.	analysis of available material and technical, information resources, human resources;	+			
68	6.	analysis of potential social conditions for students, incl. providing places in a hostel.	+			
69	7.	EP management must demonstrate a readiness to conduct special adaptation and support programs for newly admitted and foreign students.		+		
70	8.	The OE must demonstrate that its actions are in accordance with the Lisbon Recognition Convention.		+		
71	9.	The OE should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC in order to ensure comparable recognition of qualifications.		+		
72	10.	EP management must demonstrate the existence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education.	+			
73	11.	The OE should provide an opportunity for external and internal mobility of students of EP, as well as a willingness to assist them in obtaining external grants for training.		+		
74	12.	EP management must demonstrate a readiness to provide students with places of practice, to facilitate the employment of graduates, to maintain communication with them.	+			
75	13.	The OE should provide for the possibility of providing EP graduates with documents confirming the acquired qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.	+			
76	14.	An important factor is the availability of mechanisms for monitoring the employment and professional activity of EP graduates.		+		
<b>Total by standard</b>			<b>9</b>	<b>5</b>		
<b>“Academic teaching staff” standard</b>						
77	1.	The OE must have an objective and transparent personnel policy, including in the context of EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.	+			
78	2.	The OE must demonstrate the compliance of the staff potential of the teaching staff with the development strategy of the OE and the	+			

		specifics of the EP.				
79	3.	EP management must demonstrate awareness of responsibility for their employees and provide them with favorable working conditions.	+			
80	4.	EP management must demonstrate the change in the role of the teacher in connection with the transition to student-centered learning.		+		
81	5.	The OE should determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the PA, and other strategic documents.	+			
82	6.	The OE should provide opportunities for career growth and professional development of the teaching staff of the EP.	+			
83	7.	EP management must demonstrate a willingness to involve practitioners from relevant industries in teaching.	+			
84	8.	The OE must demonstrate motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activity and education, the use of innovative teaching methods.	+			
85	9.	An important factor is the readiness to develop academic mobility within the EP, to attract the best foreign and domestic teachers.	+			
<b>Total by standard</b>			<b>8</b>	<b>1</b>		
<b>“Educational resources and student support systems” standard</b>						
86	1.	The OE must ensure a sufficient number of training resources and student support services that meet the goals of the EP.	+			
87	2.	The OE must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of EP (adults, working people, foreign students, as well as students with disabilities).		+		
		EP management must demonstrate the existence of procedures for supporting various groups of students, including information and counseling. EP management must demonstrate the compliance of information resources with the EP specifics, including:				
88	3.	technological support for students and teaching staff in accordance with educational programs (for example, online training, modeling, databases, data analysis programs);		+		
89	4.	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;		+		
90	5.	examination of research results, graduation theses, dissertations for plagiarism;	+			
91	6.	access to educational Internet resources;		+		
92	7.	functioning of WI-FI on the territory of the educational organization.		+		
93	8.	The OE should strive to ensure that the educational equipment and software intended for use in the development of educational programs are similar to those used in the relevant industries.		+		
<b>Total by standard</b>			<b>2</b>	<b>6</b>		
<b>“Public Information” standard</b>						
		The OE must publish reliable, objective, relevant information about the educational program and its specifics, which must include:				

94	1.	expected learning outcomes of the implemented educational program;	+			
95	2.	qualifications and (or) qualifications that will be awarded upon completion of the educational program;		+		
96	3.	approaches of teaching, learning, as well as the system (procedures, methods and forms) of assessment;	+			
97	4.	information about passing scores and learning opportunities provided to students;	+			
98	5.	information on employment opportunities for graduates.		+		
99	6.	EP management should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and stakeholders.		+		
100	7.	Public awareness should include support and explanation of national development programs for the country and the system of higher and postgraduate education.	+			
101	8.	The OE must demonstrate the reflection on the web resource of information characterizing it in general and in the context of educational programs.	+			
102	9.	An important factor is the availability of adequate and objective information about the ATS of the EP.	+			
103	10.	An important factor is informing the public about cooperation and interaction with partners within the EP.	+			
<b>Total by standard</b>			<b>7</b>	<b>3</b>		
<b>Standards in the context of individual specialties</b>						
<b>NATURAL SCIENCES, AGRICULTURAL SCIENCES, TECHNICAL SCIENCES, AND TECHNOLOGIES</b>						
		The educational program of the directions "Natural Sciences", "Technical Sciences and Technologies" must meet the following requirements:				
112	1.	EP should include disciplines and activities aimed at gaining practical experience and skills in the specialty in general and major disciplines in particular, including: - excursions to enterprises for specialization (factories, workshops, research institutes, laboratories, training and experimental farms, etc.), - conducting individual classes or entire disciplines at the enterprise of specialization; - holding seminars to solve practical problems relevant for enterprises in the field of specialization, etc.	+			
113	2.	The Academic teaching staff involved in the education program should include, as full-time teachers, practitioners with long-term experience as full-time employees in enterprises in the area of specialization of the education program.		+		
114	3.	The content of all disciplines of the EP should be based and include a clear relationship with the content of fundamental natural sciences.	+			
115	4.	EP management should provide for measures to enhance practical training in the field of specialization.		+		
116	5.	EP management should provide for measures to enhance practical training in the field of specialization.	+			
<b>Total by standard</b>			<b>3</b>	<b>2</b>		
<b>TOTAL</b>			<b>64</b>	<b>43</b>	<b>1</b>	