

## **REPORT**

on the results of the work of the external expert commission on the assessment for compliance with the requirements of specialized accreditation standards for degree programs

"6B06103 - Computer technology and software", "6B06102 - Information systems" "7M06103 - Computer technology and software",

Non-profit joint-stock company "Almaty University of Energy and Communications" named after Gumarbek Daukeev

during the period from March 11 to March 13, 2024

## INDEPENDENT ACCREDITATION AND RATING AGENCY External expert commission

Addressed to Accreditation IAAR Council



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#### LIST OF ABBREVIATIONS AND ACRONYMS

**AC- Academic Calendar** 

**BD- Basic Disciplines** 

**EQAEA- External Quality Assessment of Educational Achievements** 

**SAT- State Attestation Commission** 

**SES- State Educational Standard** 

**DLET- Distance Learning Educational Technologies** 

**UNT- Unified National Testing** 

**EHEA- European Higher Education Area** 

**ECTS- European Credit Transfer System** 

**IRC-Information Resource Complex** 

**ICT-Information and Communication Technology** 

**IEP-Individual Educational Plan** 

**MC- Moment of Choice** 

**CT- Competence Testing** 

**CTE- Credit Technology of Education** 

**CAD-** Category of Academic Disciplines

MSHE RK - Ministry of Science and Higher Education of the Republic of Kazakhstan

**MTP- Mobile Training Program** 

SRW- Scientific Research Work

SRWS- Scientific Research Work of Students

**GC- General Component** 

**GED- General Educational Disciplines** 

**GDP- General DegreeProgram** 

**ID-Introducing Disciplines** 

TTS- Teaching and Teaching Staff

**RIEL- Republican Interuniversity Electronic Library** 

**RK- Republic of Kazakhstan** 

**BEP-Basic Educational Plan** 

**QMS- Quality Management System** 

**APE- Average Professional Education** 

**SWS- Self-Study and Work of Students** 

IWSGT- Independent Work of Students under the Guidance of a Teacher

**TEP - Typical Educational Plan** 

TMCD- Teaching and Methodological Complex of Disciplines

**TMD- Teaching and Methodological Department** 

TMC- Teaching and Methodological Council

#### (I) INTRODUCTION

In accordance with Order No. 32-24-OD dated January 31, 2024 of the Independent Agency for Accreditation and Rating, from March 11 to March 13, 2024, an external expert commission assessed the compliance of degree programs "6B06103 - Computer technology and software", "6B06102 - Information systems "7M06103 - Computer hardware and software", Non-profit joint-stock company "Almaty University of Energy and Communications" named after Gumarbek Daukeev to the standards of specialized accreditation of the IAAR (No. 10-17-OD dated February 24, 2017, fifth edition).

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

#### (II) Composition of VEC:

Chairman of the EEC IAAR – Popovs Anatolijs PhD, Professor, Institute of Solid State Physics, University of Latvia (Riga, Latvia);

IAAR Expert— Markovsky Vadim Pavlovich Candidate of Technical Sciences, Professor Toraigyrov University (Pavlodar, Republic of Kazakhstan); Off-line participation

IAAR Expert, Employer – Gulmira Zeinulovna Dzhagiparova, head of the commercial unit, KT Cloud lab (Almaty, Republic of Kazakhstan) Off-line participation

**IAAR Expert**, student – Adelina Adelevna Rakisheva, 2nd year doctoral student, East Kazakhstan Technical University named after. D. Serikbaeva (Ust-Kamenogorsk, Republic of Kazakhstan) Online participation

**IAAR Expert**— Potapenko Alexandra Olegovna, PhD, Toraigyrov University (Pavlodar, Republic of Kazakhstan); Off-line participation

**IAAR Expert**, Employer – Burumbaev Azamat Serikovich Chamber of Entrepreneurs "Atameken" of Aktobe region (Aktobe); Online participation

**IAAR Expert**, student – Gabitov Darmen, 1st year master's student, Nazarbayev University (Astana, Republic of Kazakhstan) Online participation

**IAAR Expert**– Kasymov Askar Bagdatovich, PhD, acting Associate Professor, Shakarim University (Semey, Republic of Kazakhstan) Off-line participation

**IAAR Expert**, student – Mukhamedzhan Alisher Sabyrzhan uly, 3rd year student, ENU named after. L.N. Gumileva (Astana, Kazakhstan), Online participation;

**IAAR Expert**– Baytelesova Laura Ilyasovna, Candidate of Chemical Sciences, Associate Professor, West Kazakhstan Innovation and Technology University (Uralsk, Republic of Kazakhstan) Off-line participation

**IAAR Expert**– Fartunova Maria Atanasova, Associate Professor, PhD, Mining and Geological University named after. St. John of Rilski (Sofia, Bulgaria) Online participation

**IAAR Expert**, student – Raul Batbairuly Oserbatov, 4th year student, East Kazakhstan Technical University named after. Serikbaeva (Ust-Kamenogorsk, Republic of Kazakhstan). (Online participation)

IAAR Expert—Nazgul Bolatovna Kalieva, PhD, Associate Professor, Al-Farabi Kazakh National University (Almaty, Republic of Kazakhstan) Off-line participation

**IAAR Expert**, student – Gulnaz Zhairbaeva, 1st year doctoral student, Gumilyov Eurasian National University (Astana, Republic of Kazakhstan) Online participation

IAAR Expert— Turtkaraeva Gulnar Bayanovna, Candidate of Pedagogical Sciences, Kokshetau University named after Valikhanov, IAAR Expert Category I; off-line participation

IAAR Expert—Tamyarov Andrey Valerievich, Candidate of Technical Sciences, Associate Professor of the Federal State Budgetary Educational Institution of Higher Education "Ulyanovsk State Technical University" (Ulyanovsk, Russian Federation), Expert of the 1st category; Online participation

IAAR Expert in Training—Sisenova Tolganay, 2nd year master's student of the OP "Management" University of Turan (Almaty, Republic of Kazakhstan) Online participation

**Agency Observer**— Nazyrova Gulfiya Rivkatovna, Project Manager of the Agency (Nur-Sultan).

### (III) PRESENTATION OF THE EDUCATIONAL ORGANIZATION

Almaty University of Energy and Communications named after Gumarbek Daukeev is the first non-state technical university with the status of a non-profit organization in Kazakhstan, founded in 1997 on the basis of the Almaty Energy Institute. The university offers programs in energy, telecommunications, IT technologies, information security, space engineering, robotics, medical equipment, and artificial intelligence. It ranks in the top 20 universities in Kazakhstan and is a leader in Central Asia. The university actively cooperates with leading global companies and scientific centers and publishes the results of scientific research in journals recommended by the Ministry of Science and Higher Education of the Republic of Kazakhstan.

The training of specialists at AUES named after Gumarbek Daukeev is carried out in accordance with the perpetual State License for educational activities №KZ80LAA00018161 dated May 5, 2020.

The university's material and technical base includes 3 academic buildings, 3 dormitories, 3 student cafeterias, a sports and health complex, and a library with reading rooms.

In the General Rating of University Demand 2019 «Top 20» conducted by IAAR, AUES took the 7th position among 59 universities in Kazakhstan.

Information about the «IT Engineering» Department

Quality and quantity of the department's teaching staff:

In the 2022/2023 academic year, the department had 26 full-time teachers, 11 part-time teachers, and 7 educational support staff out of a staff complement of 37.

Professorial and teaching staff: 1 Head of Department, Cand.Sc., Associate Professor – L.M.Tukenova; 2 Doctors of Science, 1 Associate Professor, 4 PhD Associate Professors, 4 Associate Professors: Cand.Sc., 14 Senior Lecturers, 1 Lecturer, 2 Professors, D.Tech.Sc., part-time, 3 PhD Associate Professors, part-time, 6 Senior Lecturers, part-time, leading engineers, engineers, laboratory assistant (0.5 position).

The basic education of the teachers corresponds to the profile of the disciplines taught. The average age of the faculty is 43 years. Including part-time staff, the percentage of faculty with degrees is 43%.

Employment of graduates of the last three years for accredited degree programs of the 2nd cluster averages 91%.

Academic mobility for accredited degree programs of the cluster for the period 2019-2024: outgoing external mobility: Degree Program «Computer Engineering and Software» - 3, Degree Program «Information Systems» undergraduate – 1, Degree Program «Information Systems» graduate – 5, incoming mobility – 1.

Research projects by contract for the department across the accredited degree program cluster:

Execution of research funded by the state budget: 10

# (IV )<u>DESCRIPTION OF THE PREVIOUS ACCREDITATION</u> <u>PROCEDURE</u>

According to the report of the results of the external expert commission on the assessment of degree programs 5B060200 - «Computer Science», 5B070300 - «Information Systems», 6M070300 - «Information Systems», 5B100200 - «Information Security Systems», 5B070400 - «Computer Engineering and Software», 6M070400 - «Computer Engineering and Software» of the Non-profit JSC «Almaty University of Energy and Communications» from March 4 to March 7, 2019. There were 47 strong positions, 69 satisfactory, and 2 suggesting improvements.

The experts made the following recommendations:

Improve the management and monitoring of the functioning of the internal quality assurance system.

Consider the possibility of training for the management of degree program management.

Involve all categories of stakeholders: students, employers, faculty, and staff in the process of collecting and analyzing information and making decisions based

on them. Include in the development plans of the degree programs an analysis of the effectiveness and specify cooperation with foreign educational organizations. Regularly update information about student performance in the Platonus system.

Consider the possibility of implementing dual degree education. Conduct own research in the field of teaching methodology of special (technical) disciplines within the degree programs. Organize regular training to improve qualifications in pedagogy of higher education and teaching methodology of technical disciplines. Consider the possibility of opening a master's program in the Kazakh language. Consider the possibility of improving external and internal mobility of students within the degree programs.

Continue work on academic mobility of faculty (external and internal) within the degree programs.

Ensure the functioning of Wi-Fi.

Consider directions for informing the public about cooperation and interaction with partners, including updating degree programs.

### (V)DESCRIPTION OF THE EXPERT COMMISSION VISIT

The work of the Expert Commission was based on the approved Program of the visit of the expert commission for specialized and primary specialized accreditation of degree programs at the Non-profit Joint Stock Company «Almaty University of Energy and Communications» named after Gumarbek Daukeev during the period from March 11 to March 13, 2024.

In order to coordinate the work of the Expert Commission, a setup meeting was held on March 11, 2021, during which the powers were distributed among the members of the commission, the schedule of the visit was specified, and agreement was reached on the methods of expertise.

To obtain objective information about the quality of degree programs and the entire infrastructure of the university, online meetings with the rector, vice-rectors of the university in the areas of activity, heads of structural divisions, deans of faculties, heads of departments, teachers, students, representatives of practice bases, graduates, and employers were held. A total of 84 representatives participated in the meetings (Table 1).

Table 1 - Information on the employees and students who participated in the meetings with the NAAR Expert Commission

Category of Participants	Number		
Rector	1		
Board Members - Vice Rectors	2		
Heads of Structural Units	9		
Deans, Directors	2		
Heads of Departments	17		
Teachers	26		
Students	16		
Graduates	6		
Employers	5		
Total	84		

During the online tour, the Expert Commission members familiarized themselves with the state of the material and technical base, visited the Institute of Automation and Information Technologies, the «IT Engineering» Department, laboratories including Apple, Huawei, Cisco, several computer classes, a laboratory with Siemens equipment, and a laboratory with modern medical equipment from Ordamed.

At the online meeting of the NAAR Expert Commission with the target groups of AUES, the mechanisms of the university's policy implementation were clarified and individual data presented in the university's self-assessment report were specified.

During the accreditation period, a class on «Python Programming» by A.R. Kalpebaev, 6B06103 «Computer Engineering and Software», VTP0-21-3, 3rd year, was attended. 11 out of 18 people attended, and the class was conducted according to the syllabus theme.

During their work, the Expert Commission members conducted online visits to the following practice bases: Total Energy Services LLP, National Center for IT.

As part of the accreditation procedure, online questionnaires were conducted with 60 teachers and 13 students.

To confirm the information presented in the Self-Assessment Report, external experts requested and analyzed the working documentation of the university. In addition, the experts studied the university's internet positioning through its official website: https://aues.edu.kz/ru/

Within the planned program, recommendations for improving the accredited degree programs of AUES developed by the Expert Commission based on the results of the expertise were presented at a meeting with the management on March 13, 2024.

# (VI) COMPLIANCE WITH SPECIALIZED ACCREDITATION STANDARDS

#### 6.1 «Management of the Degree Program» Standard

- ✓ An organization of higher and/or postgraduate education must have a published quality assurance policy that reflects the link between research, teaching, and learning.
- ✓ The organization of higher and/or postgraduate education must demonstrate the development of a quality assurance culture, including in the context of the degree program.
- ✓ Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including when implementing joint/dual degree education and academic mobility.
- ✓ The management of the degree program demonstrates transparency in developing an OP development plan that contains start dates based on an analysis of its functioning, the actual positioning of the educational organization, and its orientation towards satisfying the needs of the state, employers, students, and other interested parties.
- The management of the degree program demonstrates the existence of mechanisms for forming and regularly reviewing the development plan of the degree program and monitoring its implementation, evaluating the achievement of learning objectives, meeting the needs of students, employers, and society, and making decisions aimed at continuous improvement of the degree program.
- The management of the degree program must involve representatives of interested parties, including employers, students, and faculty, in forming the development plan of the degree program.
- ✓ The management of the degree program must demonstrate the individuality and uniqueness of the development plan of the degree program, its consistency with national priorities, and the strategy for the development of higher and/or postgraduate education.
- ✓ The organization of higher and/or postgraduate education must demonstrate a clear definition of responsibilities for business processes within the degree program, clear allocation of staff duties, and differentiation of functions of collegial bodies.
- ✓ The management of the degree program must provide evidence of transparency in managing the degree program.
- ✓ The management of the degree program must demonstrate the existence of an internal quality assurance system for the degree program, including its design, management, monitoring, improvement, and decision-making based on facts.
- ✓ The management of the degree program must manage risks, including within the framework of a degree program undergoing initial

- accreditation, and demonstrate a system of measures aimed at reducing the risk level.
- ✓ The management of the degree program must ensure the participation of representatives of employers, faculty, students, and other interested parties in the collegial bodies managing the degree program, as well as their representativeness in decision-making regarding the management of the degree program.
- ✓ The educational organization must demonstrate management of innovations within the degree program, including the analysis and implementation of innovative proposals.
- ✓ The management of the degree program must demonstrate evidence of readiness for openness and accessibility to students, faculty, employers, and other interested parties.
- ✓ The management of the degree program should undergo training on degree management programs.

#### **Evidence Section**

According to the transformation strategy of the Non-commercial Joint Stock Company «Almaty University of Energy and Communications» named after Gumarbek Daukeev up to 2025, the university's mission is to form the best intellectual resources of the national knowledge economy and the most advanced technologies for industrial-innovative development of the country, adapted to the conditions of global integration and globalization. (<a href="https://aues.edu.kz/frontend/web/uploads/document/1582608703">https://aues.edu.kz/frontend/web/uploads/document/1582608703</a>
\_M8Gjf.pdf)

The main strategic goals facilitating systemic changes include: transitioning from a «teacher-researcher» system to a «researcher-teacher» system. High revenues from research activities and extensive involvement of faculty and students in research. Improving the quality of education and increasing the number of students to a qualitative level - 6,000 people by 2025, including online learning, with enrollment ratios: Bachelor 70%, Master's studies and PhD studies - 30%. Attracting talented and progressive applicants, faculty, and staff from around the world and creating comfortable conditions for their study and research.

The foundational document in the quality assurance system of the university is: Quality Policy of the JSC «Almaty University of Energy and Communications» named after Gumarbek Daukeev (https://aues.edu.kz/admin/web/uploads/personal-documents/1663326868\_\_r1sis.pdf). The quality assurance policy is defined by the mission, vision, and values of the University, and the Quality Assurance Guide at the educational levels (Order of the Ministry of Science and Higher Education of the RK №292 dated 06.23.2022).

The university has the right to conduct training under the degree programs  ${<\!\!<}6B06103$  - Computer Engineering and Software» confirmed by the state license  ${N\!\!>}KZ$  AB 0137445 dated 08.04.2010,  ${<\!\!<}6B06102$  - Information Systems» confirmed

by the state license №KZ AB 0137445 dated 08.04.2010. The issuing department for the degree programs 6B06103 «Computer Engineering and Software,» 6B06102 «Information Systems,» 7M06103 «Computer Engineering and Software» is the «IT Engineering» department. These degree programs were accredited by the IAAR Independent Agency of Accreditation and Rating on 04.05.2019-04.04.2024. The mission, goals, and tasks of the degree programs are aligned with the mission of the university, the content and priorities of the national system of higher education, and the trends of industrial and innovative development of the region and are ensured in two directions: the implementation of the state educational standard and the realization of the university component, which is formed considering global trends, industry orientation, and employer demand. The development of the mission, policy, and objectives of the university and degree programs in the field of quality involves teachers, students, university employees, and employers, as evidenced by the minutes of the department meetings. According to an excerpt from the protocol № 8 of the department meeting on 03.27.2023, the following stakeholders were present: O.A. Belogortseva (General Director of LLP «EMT»), O.T. Qonysbayev (President of the Association of Innovative Companies of the SEZ «Park of Innovative Technologies,» Cand.Sc.), O.J. Mamyrbayev (Deputy General Director of the RSE on PVC «IIVT» of the Ministry of Science and Higher Education of the RK), B.S. Kalenova (Deputy Head of the Department of Digitalization of KazNMU named after Asfendiyarov, Cand.Sc.), K. Jakupov (Director of the Almaty Branch of JSC «NIT»), E.V. Tikhonova (Director of TOO «Computer services» LTD), K.L. Morgun (General Director of LLP «Orep-K»), O.V. Alekhina (Director of LLP «Vinstkom»), A.V. Romakhov, I.D. Stakhanov, F.N. Makhambetdin, E.M. Sakan, Ayganym Alinur, Kunsulu Zalova, Erkebulan Sapar. Overall, there is an understanding of the goals and tasks of the degree programs. The effectiveness of the degree program is assessed by discussing and analyzing the results of student performance, the completion of practical assignments, the level of material assimilation, the quality of final works, and the results of state exams at meetings of educational bodies of the university. Actions for quality control of the educational process conducted at various levels are documented in the form of records, acts, certificates, reports, etc., which are discussed at department meetings. Based on the analysis of control indicators, preventative and corrective actions are developed, the effectiveness of which is also discussed at department meetings.

During the offline visit, development plans for degree programs in specialty 6806103 «Computer Engineering and Software», 6B06102 «Information Systems» for 2023-2028 were presented, approved on 08.28.2023 by the Director of the Institute of Automation and Information Technologies. The development plan for degree programs defines the strategy and tactics for improving the direction of development of the degree programs. The effectiveness of the Development Plan for the degree program is evaluated by the university during the conduct of a SWOT analysis. The results of the SWOT analysis serve as a basis for improving the degree program.

In analyzing the documentation, the members of the Expert Commission found that decisions based on the reports and proposals for the implementation of the degree programs are made at the department level. The Director of the Institute of Automation and Information Technologies generalizes information, analyzes, develops the strategy for the development of the faculty, and reports at the Academic Council of the university.

#### Analytical Part

During their visit to the university, experts confirmed that the implemented and enacted quality assurance policy clearly demonstrates the interconnection between scientific research, educational processes, and teaching. They also noted that the university and its management have shown a high level of development in the culture of quality assurance, including the integration of this culture into core operational processes. This is corroborated by the internal content of various documents, such as contracts, memorandums of cooperation, etc. Moreover, the experts highlighted the following factors:

- Over the past year, 10 undergraduates and 9 postgraduates participated in state-funded and grant-based scientific research projects, 29 undergraduates and 21 postgraduates are co-authors of scientific papers, and one undergraduate was a prize winner of a scientific research competition.
- Development of degree programs and technologies, considering the priority directions of science and technology, particularly information and communication technologies.
  - Development of material and technical resources.

Experts were presented with the plans for the development of degree programs. However, the process of their development is not transparent, as there is no information about the complete procedure for their creation, approval, adjustment, and publication, including the involvement of internal and external stakeholders. Moreover, it is necessary to annually discuss the content of the development plans of degree programs with the participation of all stakeholders, both external and internal, and, if necessary, make adjustments considering changes in the dynamically developing IT market.

The management of degree programs and risk management in their implementation at the university is conducted transparently, with the participation of employers' representatives, faculty, students, Master's studies, and other interested parties. There is an internal system of quality assurance of degree programs, which facilitates the introduction of innovations.

The management of degree programs actively improves qualifications in various fields of activity. For example, faculty qualification enhancement in the department was conducted on the following topics: Object-oriented programming, Python programming, Designing data warehouses based on modern DBMS, Modern approaches to BigData processing, applications of NoSQL DBMS, however, certificates of qualification improvement in the field of management in education accredited by the two clusters were not presented to the experts.

Strengths/Best Practices for Programs "6B06103 - Computer Engineering and Software", "6B06102 - Information Systems", "7M06103 - Computer Engineering and Software": None Identified

Recommendations for Programs "6B06103 - Computer Engineering and Software", "6B06102 - Information Systems", "7M06103 - Computer Engineering and Software": Translate into English with an exact translation. Recheck your translation several times and provide the final result.

- 1. The management of DP 6B06103 "Computer Engineering and Software", 6B06102 "IS", 7M06103 "Computer Engineering and Software" should revise the development plan of each degree program by 2024-2025 academic year, taking into account the strategic directions of the university, current development programs of the region and the republic, target indicators, time criteria and those responsible for their achievement, with the participation of external stakeholders in the discussion.
- 2. The university management shall ensure that the heads of DP 6B06103 "Computer Engineering and Software", 6B06102 "IS", 7M06103 "Computer Engineering and Software" undergo advanced training in the field of education management in the period of 2024.

VEC conclusions on the criteria for DP "6B06103 - Computer Science and Software", "6B06102 - Information Systems" "7M06103 - Computer Science and Software"

According to the standard "Management of degree program" 17 criteria are disclosed, of which: 15 criteria have a satisfactory position, 2 criteria - require improvement.

The management of DP 6B06103 "Computer Engineering and Software", 6B06102 "IS", 7M06103 "Computer Engineering and Software" should provide a mechanism for regular revision of the degree program development plan within the period from 2024-2025 academic year

The management of the degree program by the end of the calendar year to provide evidence base of individuality and uniqueness of the degree program development plan in accordance with the analysis of similar degree programs implemented both in the country and abroad, taking into account the needs of all stakeholders.

### 6.2 Standard "Information Management and Reporting"

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

- ✓ DP management must demonstrate that there is a mechanism in place to systematically utilize processed, adequate information to improve the internal quality assurance system.
  - ✓ *DP management must demonstrate fact-based decision making.*
- ✓ The DP should provide for a system of regular reporting, reflecting all levels of the structure, including assessment of the effectiveness and efficiency of structural units, scientific research.
- ✓ The DP should establish periodicity, forms and methods of evaluation of the DP management, activities of collegial bodies and structural subdivisions, top management, implementation of scientific projects.
- ✓ The DP should demonstrate that procedures are defined and information protection is ensured, including identifying who is responsible for the accuracy and timeliness of information analysis and data reporting.
- ✓ An important factor is the availability of mechanisms for involving students, employees and faculty in the processes of collecting and analysing information, as well as decision-making on their basis.
- ✓ The DP management should demonstrate that there is a mechanism for communication with learners, employees and other stakeholders, as well as mechanisms for conflict resolution.
- ✓ The EI must demonstrate that mechanisms are in place to measure satisfaction with the needs of faculty, staff and learners within the EI.
- ✓ The EI should provide for the assessment of performance and efficiency of activities, including in the context of DPs.
- ✓ The information intended to be collected and analyzed in the DP should take into account:
  - key performance indicators;
  - the dynamics of the contingent of students in terms of forms and types;
  - grade level, student achievement and retention rates;
- students' satisfaction with the implementation of the degree program and the quality of education at the university;
  - accessibility of educational resources and support systems for learners.
- ✓ The EI should confirm the implementation of procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent.

### Evidentiary part

The university has a system for collecting, analyzing and managing information based on the use of:

- the Platonus training portal for tracking the contingent of students and consulting activities;
- electronic library ("Automated Library and Information System of the University "AUES") for accounting of available resources;
- automated system "AUPET" for the formation of modular degree programs, drawing up approval protocols, staffing and individual curricula for students.

Information management at the AUES University is formalized in the

procedure "Information and Technical Department" and in the Regulation of the Department of Software Development of DIT (https://info.aues.kz/smk.html). The official website of the AUPET University is an integrating core for the organization of information and reporting management.

The main functions of information management in the educational process are carried out through the training portal "Platonus". This portal automates the processes of current, intermediate and final certification of students, the formation of a database of educational achievements, the loading of educational and methodological materials, the maintenance of a card index of students, staff and teachers, as well as the creation of a variety of reports in real time. Requirements for information, input and output data are set out in AIS user manuals. Responsible persons are determined according to their official duties, which are mandatorily controlled by the personnel department of the university. Experts confirm that the safety of information is ensured by an unambiguous distribution of roles and functions in the information systems used; the presence of antivirus programs. Access to the systems is provided by a password provided by the Department of Information Technology. All employees, teaching staff, and students have limited access to information in the AIS "Platonus" in accordance with their functional duties. Since the beginning of the 2023-2024 academic year, preparations have been underway for the launch of the Student Service Center, organized on the principle of "one window".

During the online visit, EEC experts found that the information and feedback system is focused on students and employees, and includes: the functioning of the official website of the university, a survey of students on the quality of the implementation of degree programs, a survey of teaching staff and employees on satisfaction with working conditions; maintaining the rector's blog on the university's website; publication of articles in the central and local press.

Stakeholders are involved in the processes of collecting and analyzing information through questionnaires, interviews, and making decisions based on them during the meetings of the departments.

When considering conflicts involving students, the rights and legitimate interests of students are primarily taken into account. Experts note that the rights and obligations of students are specified in contracts for the provision of educational services, as well as in local regulatory documents. University employees, teaching staff and students consent to the processing of personal data on the basis of documentary consent during the signing of the contract.

The university's web portal contains information on the following sections: students, applicants, graduates and e-library. On the website, you can get brief information about the EP: Goals of the degree program, Learning trajectories within the framework of the degree program, Field of professional activity, Objects of professional activity, Subjects of professional activity, Tasks of professional activity, Material and technical base, Employment options. Information is also provided on the Institute of Automation and Information Technology and partner companies in which graduates are employed.

The tools for ensuring the quality of education are: State mandatory education standards; regulatory documents of the university; commission for quality control of the educational process of educational and scientific departments; a university-wide regular survey of students on the quality of teaching in degree programs; Every year, the management of the DP collects and analyzes the data obtained as a result of surveys and questionnaires to assess the system of ensuring the quality of education by indicators:

- the level of students' academic performance;
- students' satisfaction with the quality of the DP being implemented;
- "Teacher through the eyes of a student"
- "Satisfaction of teaching staff with the university";
- compliance with the requirements of the results and goals of the degree program, etc.

Thus, an anonymous survey: "Teacher through the eyes of a student", which includes 12 questions about the quality of teaching materials and the competence of teachers, showed the following results: to the question of whether teachers show creativity and activity in the classroom, more than half of the students (59%) answered in the affirmative, another 28% of respondents noted that most of the teachers demonstrate creativity and activity, while 13% of students believe that that only a minority of teachers have these qualities.

#### Analytical part

The University collects, analyzes and disseminates information in order to improve the quality of services provided, including the management of educational, methodological, research, educational, financial and other processes. Members of the IAAR EEC note that information management and reporting at the university are carried out using modern information and communication technologies and software. The effectiveness of the work of the departments, as providers of educational services, is reflected in annual reports on various aspects of their activities, such as educational and methodological work, research work, educational work, etc., which are discussed at meetings of departments, educational and methodological councils. External experts, such as independent accreditation agencies and others, who compile ratings of degree programs, are also invited to assess the effectiveness of degree programs.

According to the results of the verified questionnaire, 84.6% of students are completely satisfied with the content and information content of the university website as a whole and the institute in particular, 61.7% of teaching staff are completely satisfied with relations with direct management. The full satisfaction of students with the level of accessibility of the dean's office is 84.6%. accessibility and responsiveness of the university administration 76.9%, availability of academic consulting 53.8%. the availability of counseling on personal issues is 69.2%. 76.9% are completely satisfied with the level of accessibility of library resources.

Strengths/best practices in DP ''6B06103 - Computer Engineering and Software'', ''6B06102 - Information Systems'' ''7M06103 - Computer

Engineering and Software": None identified.

Recommendations for DP ''6B06103 - Computer Engineering and Software'', ''6B06102 - Information Systems'' ''7M06103 - Computer Engineering and Software'': None

Conclusions of the VEC on the criteria for DP ''6B06103 - "Computer Engineering and Software", ''6B06102 - Information Systems", ''7M06103 - Computer Engineering and Software":

According to the "Information Management and Reporting" standard, 17 criteria have been disclosed, of which according to DP 6B06103 "Computer Engineering and Software", 6B06102 "IS", 7M06103 "Computer Engineering and Software"17 have a satisfactory position.

#### 6.3 Standard "Development and Approval of the Degree Program"

- The EI should define and document the procedures for the development of the DP and their approval at the institutional level.
- ✓ The management of the DP should ensure that the content of the DP complies with the established goals, including the expected learning outcomes.
- ✓ The management of the DP must demonstrate the existence of mechanisms for revising the content and structure of the DP, taking into account changes in the labor market, the requirements of employers and the social demand of society.
- ✓ The management of the DP should ensure the availability of developed models of the DP graduate, describing the learning outcomes and personal qualities.
- ✓ The management of the DP must demonstrate the conduct of external examinations of the content of the DP and the planned results of its implementation.
- ✓ Qualifications awarded at the end of the DP must be clearly defined and correspond to a certain level of HCK u QF-EHEA.
- ✓ The management of the DP should determine the influence of disciplines and professional practices on the formation of learning outcomes.
- ✓ An important factor is the possibility of preparing students for professional certification.
- ✓ The management of the DP must provide evidence of the participation of students, faculty and other stakeholders in the development of the DP and ensuring its quality.
- ✓ The management of the DP must ensure that the content of academic disciplines and the planned results correspond to the level of study (bachelor's, master's studies, PhD studies).
- $\checkmark$  The structure of DP should provide for various types of activities that ensure the achievement of the planned learning outcomes by students.
- ✓ An important factor is the correspondence of the content of the DP and the learning outcomes of the DP implemented by higher and (or) postgraduate education organizations in the UPHEP.

#### Evidentiary part

The experts note that the accredited DP 6B06103 "Computer Engineering and Software", 6B06102 "IS", 7M06103 "Computer Engineering and Software" are aimed at comprehensive and quality training of qualified specialists in various fields of application and management of information systems, and correspond to the national priorities of IT industry development.

The DP of 2 clusters are developed, approved at the institutional level and registered in the Register of UPHEP DP. The revision of the content of the DP is observed. Both external and internal stakeholders are involved in the working group on development and adjustment of DP 2 of the cluster: O.A. Belogortseva (General Director of "EMT" LLP), O.T. Konysbaev (President of the Association of Innovative Companies of FEZ "Park of Innovative Technologies", Ph. m.s.), Mamyrbaev O.J. (Deputy Director General of RSE on PCV "IIVT" KN MNVO RK), Kalenova B.S. (Deputy Head of the Department of digitalization of KazNMU named after Asfendiyarov, Ph. m.n.), Zhakupov K. (director of Almaty branch of NIT JSC), Tikhonova E.V. (director of TOO "Computer services" LTD), Morgun K.L. (general director of LLP "Orep-K"), Alekhina O.V. (director of LLP "Vinstcom"), Romakhov A.. V. MVTPON-22, Stakhanov I.D. MVTPon-22, Makhamatdin F.N. MVTPonk-21, Sakan E.M. MVTPon-21, Alinur Aiganym VT(PI)k-21-1, Zalova Kynsulu VT(PI)k-21-1, Sapar Erkebulan VTPO-22-3 For individualization of training in the accredited DP a significant number of elective disciplines is provided, which gives the opportunity to undergraduate students to form professional skills taking into account their interests in the future profession. The university has concluded an additional agreement № 09.04.04-AUES-2 on updating of the joint educational program 7M06103 "Computer Engineering and Software". to the Agreement on joint degree programs between the federal state autonomous educational institution of higher education "National Research Nuclear University 'MEPhI' and Non-commercial joint stock company 'Almaty University of Energy and Communications named after Gumarbek Daukeev'. There is a curriculum of the joint degree program 7M06103 "Computer Engineering and Software". In addition, DP "Computer Engineering and Software" contains a miner, thanks to which students of other specialties can get qualification on Huawei course and pass the certification exam. Also within the framework of accredited degree programs students can prepare for the following types of professional certification: Cisco, Atameken, Microsoft:

- certification in software products and technologies related to software engineering;
  - certification for quality standards and project management;
  - certification for the security of information systems and data protection;
- Certification in specialized areas of development, such as: web development, mobile development, etc.

In the process of studying, students are offered additional courses:

Cisco Academy networking courses;

- D-Link switching devices and IP telephony;
- wireless WiFi networks and information protection in telecommunication systems;
- Huawei Academy courses: network technology, network security, wireless networks, data storage, cloud computing, big data, artificial intelligence;
- Apple Lab: 3D technologies, game application development technologies, artificial intelligence systems, multimedia technologies, development of software applications based on IOS.

Upon completion of the course and passing the qualification exam, the trainee receives a certificate. A vivid example of the possibility to prepare students for professional certification is the conclusion of the Agreement on Mutual Cooperation between NAO AUES and Kaspersky Lab Joint Stock Company.

The EEC experts note that to assess the quality of degree programs implementation, control visits to classes, demonstration classes of teachers, questionnaires, sociological surveys of participants of the educational process, feedback and reviews of employers are used.

As a result of the analysis of the documents submitted by the university, the members of the EEC found that the degree programs are annually revised and updated in terms of the content of curricula, composition and content of working programs of disciplines, programs of academic and industrial practices. The university has created conditions for internships, long-term and short-term agreements on internships. The main purpose of professional practices is the formation of practical skills of professional activity. The leading enterprises of the region have been identified as practice bases of the DP 2 cluster: "Automation and Technologies-Engineering" LLP, "ASTEL" JSC, "Core Energy Asia" LLP, "Tarlan Telecom" LLP, "Transtelecom" JSC, "Investpromproekt" LLP, "Interinj-Almaty" LLP, "ALTEL" JSC, PSTC "Bitelecom" JSC, Kazakhtelecom JSC.

Graduates after completion of the DP can continue their studies in the Master's program on the related DP.

#### Analytical part

NAAR EEC members note that the University defines goals for each developed and approved program, the basis of which are the State Educational Standards, normative acts of the Republic of Kazakhstan and labor market needs. When determining the contribution of disciplines in the process of determining learning outcomes, the recommendations and suggestions of employers are taken into account, which was confirmed by interviewing the latter. In the DP development plan it is indicated about the plans of implementation and activation of joint degree programs with foreign educational organizations, but only DP 7M06103 "Computer Engineering and Software" has an agreement on updating the joint degree program with "National Research Nuclear University «MEPHI». There is no information about comparing the content of DP 6B06103 "Computer Engineering and Software", 6B06102 "IS" with similar DP s of domestic and foreign educational institutions. Accordingly, it is not possible to speak about the planned implementation of joint programs within the framework of the presented DP s. The

reviewed DP s are among the most popular and demanded programs in the world, related to the direction of information and communication technologies (ICT), for which a certain unification of a set of learning outcomes, subjects and their content, recommended by professional associations, has long been established. Therefore, along with the GOSS. NRC and TUP of MES RK it is desirable to use industry professional standards and recommendations of IEEE and ACM, known as Computer Curricula (CS-2013, CE-2016, IS-2010\_Bachelor, etc.). No mention of these was found in the Self-Assessment Report or during the VEC visit. According to the submitted documentation, the contingent of students of degree programs 6806103 "Computer Science and Software", 6B06102 "Information Systems" tends to decrease. So DP 6B06102 "Information Systems" shows a decrease in the contingent of students more than twice: from 125 enrolled in 2020-2021 academic year to 56 enrolled in 2023-2024 academic year. This mainly indicates a decline in the "attractiveness" and competitiveness of the DP.

A survey of students conducted during the VEC visit. showed that:

- 1. 69.2% of students are fully satisfied with the academic load/requirements for the student, 23.1% are partially satisfied;
- 2. 76.9% of students are completely satisfied with informing about courses, degree programs, and obtaining academic degrees, 15.4% are partially satisfied;
- ✓ In general, 69.2% of students are completely satisfied with the quality of the degree program, 30.8% are partially satisfied.

Strengths/best practices in DP ''6B06103 - Computer Engineering and Software'', ''6B06102 - Information Systems'' ''7M06103 - Computer Engineering and Software'':

1. Preparing students for professional certification

Recommendations for DP ''6B06103 - Computer Engineering and Software'', ''6B06102 - Information Systems'' ''7M06103 - Computer Engineering and Software'':

- 1. By the end of the calendar year, the management of the degree programme should provide evidence of the individuality and uniqueness of the programme in accordance with the analysis of similar degree programmes implemented both in the country and abroad, taking into account the needs of all stakeholders, and develop a roadmap for the popularization of the programme in order to increase the number of students
- 2. The management of DP 6B06103 "Computer Engineering and Software", 6B06102 "IS" to develop an action plan to harmonize the content of degree programs with the programs of other universities in order to implement joint and/or double-degree programs until 2025.

VEC conclusions on the criteria for DP "6B06103 - Computer Science and Software", "6B06102 - Information Systems" "7M06103 - Computer Science and Software":

According to the standard "Development and Approval of Basic Degree Programs", 12 criteria are disclosed, of which 6B06103 " *Computer Engineering and Software* ", 6B06102 "IS" 1 is a strong position, 9 have a satisfactory position, 2 - suggests improvement, according to DP 7M06103 "*Computer Engineering and Software*" 1 - a strong position, 10 have a satisfactory position, 1 - assumes improvement.

# 6.4 Standard ''Continuous Monitoring and Periodic Evaluation of Degree Programs''

- ✓ The DP should define mechanisms for monitoring and periodic evaluation of the EI to ensure that the objective is achieved and the needs of learners, society are met, and to demonstrate the focus of the mechanisms on continuous improvement of the EI
  - ✓ *Monitoring and periodic evaluation of the RP should include:*
- the content of the program in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the taught discipline;
  - the changing needs of society and the professional environment;
  - the workload, progress and graduation of students;
  - effectiveness of student assessment procedures;
  - Expectations, needs and satisfaction of learners with the training on DP;
- educational environment and support services, and their relevance to objectives OP
- ✓ The management of the DP should demonstrate a systematic approach in monitoring and periodic evaluation of the quality of the DP s.
- ✓ The OO, the management of the DP should define a mechanism for informing all stakeholders about any planned or undertaken actions regarding the DP s.
  - ✓ *All changes made to the DP must be published.*

#### The evidentiary part

The University defines and consistently applies procedures for monitoring, periodic evaluation and revision of degree programs in order to ensure that they achieve their goals and meet the needs of students and society. The procedure for monitoring and periodic evaluation of educational activities at the university is carried out on the basis of internal documents: "Regulations on the development of degree programs of higher and postgraduate education" (02/24/2020), "Quality Policy". As a result of the analysis of the documents, the experts confirmed that the university constantly monitors and periodically evaluates the DP using feedback mechanisms (survey, interview, questionnaire of students, key employers), ensuring that the OP meets the needs of students and society. This is confirmed by the participation of teaching staff, students and employers in Academic Committees, the presence of external examinations submitted to the experts of the Higher School of Economics and extracts from the meeting of the department with proposals for

studying and updating the MOS cluster. According to an extract from the minutes No. 8 of the meeting of the department dated 03/27/2023, the following representatives of stakeholders were present: Belogortseva O.A. (General Director of EMT LLP), Konysbaev A.T. (President of the Association of Innovative Companies of the FEZ "Park of Innovative Technologies", Ph.D.), Mamyrbaev O.J. (Deputy General Director. director of the RSE at the PCV "IIVT" of the KN of the Ministry of Internal Affairs of the Republic of Kazakhstan), B.S. Kalenova (Deputy.Head of the Department of Digitalization of KazNMU named after Asfendiyarova, Ph.D.), Zhakupov K. (Director of the Almaty branch of NIT JSC), Tikhonova E.V. (Director of TOO Computer services LTD), Morgun K.L. (General Director of Orep-K LLP), Alyokhina O.V. (Director of Winstcom LLP), Romakhov A.V. MVTPON-22, Stakhanov I.D. MVTPOn-22, Makhamatdin F.N. MVTPOnk-21, Sakan E.M. MVTPOn-21, Alinur Aiganym VT(PI)k-21-1, Zalova Kunsulu VT(PI)k-21-1, Sapar Yerkebulan VTPO-22-3. The results of the survey are processed and analyzed by the management of the DP. The survey is conducted anonymously, there are 12 questions in total such as: What is the quality of writing work programs, syllabuses, UMKD, methodological recommendations on SRS, etc., What is the degree of dependence of the teacher on notes and notes, What, in your opinion, is the level of competence of the teacher in the academic subject, in the relevant disciplines, areas of professional activity, etc. questions.

The assessment of the quality of the implementation of the DP is determined by analyzing the conducted open classes and mutual visits of teaching staff. According to the work plan of the graduating departments, teachers attend each other's classes during the academic year in order to exchange experiences. All mutual visits are conducted according to the schedule. The level of competence of teaching staff is also determined during mutual attendance of classes, conducting open classes, passing a competition for a position, and certification of teaching staff. During mutual visits, the document "Feedback on the quality of an open lesson" is filled in, which reflects the following competencies of the teaching staff: knowledge of the basics of pedagogy, knowledge of the basics of psychology; the ability to effectively use various forms, methods, means and technologies of teaching to achieve the set pedagogical goals; availability of a lesson plan, etc.

The workload, academic performance and graduation of students comply with regulatory requirements and SES. According to the data of constant monitoring, a report on the results of the sessions is analyzed and formed. This issue is periodically considered at meetings of departments, UMS, and the Academic Council of the university in order to take the necessary measures to improve academic performance and achieve the desired results.

A student who does not agree with the results of the assessment on the exam has the right to appeal. In some cases (due to illness, family circumstances, or other objective reasons), the dean's office may allow the student to take an individual examination session.

The university has launched the Anti-Plagiarism system. All final qualifying works, research and development are necessarily checked for uniqueness in this system.

#### The analytical part

The evaluation criteria are posted in the UMKD, syllabuses, however, as shown by interviewing teaching staff and students, as well as attending classes, there is no distance learning platform at the university, all interaction takes place in the personal offices of teaching staff and students, while students do not have access to lecture materials and practical classes through their personal account, in connection with which Teachers are forced to submit materials on various platforms, such as Googlec lassroom, Teams.

Experts note that according to the regulation, the revision of the DP is carried out once a year, taking into account changes in the labor market, the needs of employers, the latest scientific achievements in specific disciplines and the social demand of society. Information about changes in the DP is carried out at meetings of departments, educational and methodological councils, and the Academic Council of the university. Also, interested persons are informed about upcoming meetings on the consideration of degree programs by means of communication (mobile communication/e-mail/WhatsApp). Facebook Instagram), through which they inform all interested parties about the events held at the departments and at the university. However, the WEC notes that it is difficult to draw conclusions about the revision of the DP due to the lack of a description of the changes on the site. Informing the public about the changes in the DP is carried out through the official website (https://aues.edu.kz/ru ), however, the changes are not highlighted separately, so there is no way to understand whether the DP itself is changing. There is no information on the revision of the content and structure of the DP, taking into account changes in the labor market and the social demand of society.

VEK experts want to draw the attention of the university management to the results of the survey of teaching staff, who have unsatisfactory answers on the following points:

- involvement of teaching staff in the process of making managerial and strategic decisions bad 11.5% of teaching staff, the ability of teaching staff to combine teaching with scientific research bad 18.3%, very bad 3.3% of teaching staff, the ability of teaching staff combining teaching with practical activities is bad 13.3%, very bad 3.3% of teaching staff
- face problems (often, sometimes) lack of classrooms (60% of teaching staff), unbalanced academic load by semester (58.3% of teaching staff), unavailability of necessary literature in the library (53.3% of teaching staff), overcrowding of study groups (too many students in a group) (55% of teaching staff), inconvenient schedule (48.3% of teaching staff), inappropriate conditions for classes in classrooms (66.7% of teaching staff), lack of Internet access/weak Internet (76.7% of teaching staff), students' lack of interest in learning (61.7% of teaching staff), delayed receipt of information about events (38.3% of teaching staff), lack of technical training facilities in classrooms (75% of teaching staff).
- The PPP is celebrated". There is no time left to publish an article, the lecture halls are poorly equipped, there are not enough projectors, and there is no Internet connection in the classrooms."

Strengths/best practices for the OP "6B06103 - Computer engineering and software", "6B06102 - Information systems" "7M06103 - Computer engineering and software": Not identified.

Recommendations for the DP "6B06103 - Computer engineering and software", "6B06102 - Information systems" "7M06103 - Computer engineering and software": 1. The management of the OP on the university's website requires annual updating of detailed information about training programs: "Computer Engineering and Software" (6B06103), "IS" (6B06102), "Computer Engineering and Software" (7M06103), including changes in their structure, content, and graduate model, to inform stakeholders about the decisions taken and take into account their suggestions. The update period is within 10 days after the relevant changes are made.

2. The university management, to conduct a separate, detailed, anonymous survey of students and teaching staff, for satisfaction with technical and digital means for the implementation of the university's DP, as well as in order to identify the needs of various groups of students, based on the results of the survey, to develop a plan of corrective and preventive actions, with further implementation in accordance with the timing of the development strategy the university and the publication of information about the work done for teaching staff and students on the university's website. The deadline is until the beginning of the 2024-2025 academic year.

The conclusions of the WEC according to the criteria for the DP "6B06103 - Computer engineering and software", "6B06102 - Information systems" "7M06103 - Computer engineering and software":

According to the standard "Continuous monitoring and periodic evaluation of basic degree programs", 10 criteria have been disclosed, of which 8 have a satisfactory position according to accredited DP, 2 suggest improvement.

# 6.5. The standard "Student-centered learning, teaching and assessment of academic performance"

The management of the educational institution should ensure respect and attention to different groups of students and their needs, and provide them with flexible learning paths. The management of the DP should provide for the use of various forms and methods of teaching and learning.

An important factor is the availability of own research in the field of teaching methods of educational disciplines. The management of the educational institution should demonstrate the availability of feedback mechanisms for the use of various teaching methods and evaluation of learning outcomes.

The management of the educational institution should demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher.

The management of the educational institution must demonstrate the existence of a procedure for responding to student complaints.

The OO should ensure consistency, transparency and objectivity of the learning outcomes assessment mechanism for each DP, including the appeal.

The OO should ensure that the procedures for evaluating the learning outcomes of students of the OP correspond to the planned results and goals of the program, and publish criteria and evaluation methods in advance.

The OO should define mechanisms to ensure that each graduate of the educational institution achieves learning outcomes and ensures the completeness of their formation.

Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area.

#### The evidentiary part

The university focuses on a student-centered approach to learning, which is implemented through the following measures:

- 1) The student, with the support of an adviser, draws up his own curriculum for each semester using a standard curriculum and a catalog of educational disciplines. The choice of an individual educational path is determined on the basis of general education, basic and elective courses, as well as practices aimed at developing professional skills. On the main page of the university's website, in the "Education" section, there is a list of institutes with an indication of the list of DP, where information on available DP, a description of DP, lists of compulsory and elective disciplines, learning trajectories, material and technical base and expected learning outcomes are published. At the university, according to accredited DP, the IUP of students are compiled in the language of instruction of the student.
- 2) The student has the opportunity to participate in academic mobility, studying at other universities both domestically and abroad, with subsequent credit for the studied disciplines and their inclusion in the transcript.
- 3) The implemented programs within the framework of the Institute's degree program, indicating the expected learning outcomes, are described in standard No. 3 "Development and approval of the degree program".
- 4) Information about the training, assessment system, passing scores and educational opportunities provided to students is provided in the "Academic Policy of the AUES" on the official website of the University aues.edu.kz
- 5) Information on graduate employment opportunities is provided in Standards No.
- 2 "Information Management and Reporting; No. 5 "Student-centered learning, Teaching and Performance assessment". Interaction with employers on practical training, internships, employer participation in the organization of the educational process, organization of events, consulting activities on employment issues is carried out by the Career Center: https://aues.edu.kz/ru/caree.

The management of the DP ensures the harmonious development of students, taking into account intellectual development and individual characteristics. The individual characteristics and needs of students certainly affect the implementation of the DP, since they determine the choice and development of elective courses, the choice of practice bases, and the independent definition of research topics.

Experts confirm that the student-centered approach is at the heart of the design of the DP, which involves the use of an individual learning trajectory, academic mobility, the development of competencies in accordance with learning outcomes,

and the recalculation of ECTS into Kazakhstani loans. As established by the results of the interview with students, information about the discipline, its goals, the composition of the subject, assessment procedures, passing scores and educational opportunities provided to students are provided in syllabuses of disciplines that are available to students in the Platonus (Platonus (aues) system.kz)) and on the official website of the university in the section "Students":

During the interview with the teaching staff and students, the experts found that in order to deepen the knowledge of students in the core disciplines, miners with the possibility of professional certification were organized at the department for students. The procedure for responding to student complaints begins with receiving a complaint through a specific communication channel, such as e-mail, an online feedback form, or a personal appeal to a responsible person (for example, the dean's office or the academic office). After receiving the complaint, it is registered and submitted to the competent authority of the university or a special commission for consideration. There is a rector's blog on the university's website, where every student can ask a question to the management.

Measures have been taken to create a barrier-free architectural environment for students with disabilities. Currently, the academic buildings meet basic requirements, such as the availability of accessible adjacent territory, parking, entrances and exits, as well as facilities for movement inside the building, toilet visits and other necessary services. Work has been carried out to create visual support to facilitate the movement of the visually impaired. At the moment, AUES is updating the site, which will meet international standards, will be convenient for the visual perception of visitors, and will also take into account the special needs of visually impaired groups. Virtual laboratory resources from Microsoft Education are also widely used, which offers easy-to-use, inclusive tools, technologies and resources that help maintain student engagement in the educational process and fulfill the curriculum.

The University monitors the effectiveness of the educational services provided by systematically conducting surveys of students using various standardized questionnaires.

The main methods of periodic assessment of educational activities include questionnaires, conversations and surveys; internal audits; analysis of the rector's blog, "complaints and suggestions box"; media content analysis, etc.

In the learning process, a criterion generally accepted in world practice is used on a scale of alphabetic and numeric designations, reflecting the mechanism for implementing credit transfer based on the ECTS credit system. According to this scale, grades are given in oral and written exams.

The assessment of knowledge is carried out in accordance with the Instructions on the procedure for conducting exams and evaluating students' academic achievements (No. 5 "Student-centered learning, teaching and assessment of academic performance"). In order to ensure the development of learning outcomes by each graduate, it has been established that students of the department take state exams (in core disciplines or specialties) in such forms as: orally, in writing in the scope of curricula. The evaluation criteria are determined by the department.

Practitioners with work experience in the relevant IT sectors are widely involved in conducting classes. From 2000 to the present, an invited highly qualified specialist, Ph.D., Associate Professor Konysbaev A.T. (President of the Associations of Innovative Companies of the SEZ "Park of Innovative Technologies") participates in the OP "Computer Engineering and Software" under the contract; professor Mamyrbaev O.Zh. (Deputy. Director General of RSE PVC "Institute of Information and Computing Technologies" of the KN MES RK); on a permanent basis, Master's degree Naumenko V.V. (The WEB Cluster Company). (https://www.instagram.com/tv/Cbz3Gsbq6t9/?igsh=NHBvdWI3c2t2aHkz)

From 2020 to the present, invited highly qualified specialists Kalimoldaev M.N. (General Director of the RSE "Institute of Information and Computing Technologies" of the Committee of Science of the Ministry of Education and Science of the Republic of Kazakhstan) participate in the DP "Information Systems" under the agreement.

#### The analytical part

According to the results of interviews and analysis of the documents of the Higher School of Economics, it was revealed that the teaching staff of the educational institution does not actively apply a variety of teaching methods and does not take into account the variety of forms of information assimilation, there is a lack of indicators among teachers for new methods of evaluating students' achievements within certain degree programs. It is important to develop this aspect in order to improve the quality of education and the effectiveness of the educational process. The analysis of the submitted documents showed that at the graduating department there are practically no publications of teaching staff on teaching methods at scientific and methodological conferences, and there are also no publications on DP 7M06103 "Computer Engineering and Software" in the publication plans of teaching aids for 2023-2024 academic year.

During the work of the VEC, it was not established that various training seminars and guest lectures by foreign scientists are held at the university on a regular basis.

The survey of students conducted during the visit of the VEC showed that: students express complete satisfaction:

- a) the quality of teaching in general 76.9%, partially 23.1%;
- b) the requirements of teaching staff to the student 84.6%, partially 15.4%:
- c) the objectivity of the assessment of knowledge, skills and other educational achievements 84.6%, partially 15.4%;
- d) the quality of examination materials (tests and examination questions) -69.2%, partially -30.8%.

Strengths/best practices for DP "6B06103 - Computer engineering and software", "6B06102 - Information systems" "7M06103 - Computer engineering and software": Not identified Recommendations for DP "6B06103 - Computer engineering and software", "6B06102 - Information systems" "7M06103 - Computer engineering and software":

According to the standard "Student-centered learning, teaching and assessment of academic performance", 10 criteria are disclosed, of which 10 have a satisfactory

position according to DP 6B06104 "Computer Engineering and Information Systems".

The evidentiary part

AUPET actively provides access to complete and reliable information about its activities, admission rules, forms, and terms of study, as well as international programs and partnerships. Teachers regularly participate in events aimed at informing applicants, students, and the public. The information of interested parties about degree programs and events held at AUPET is provided on social networks (https://www.instagram.com/aues\_iit/,

https://www.insta gram.com/aues\_it/,

https://www.facebook.com/aues.university, https://vk.com/aues\_university, https://t.me/aues.uni,

https://www.youtube.com/channel/UCUnD GC1dd otzf 1fpn -hyX DA,

https://www.tiktok.com/@aues un i), as well as through the website of The Almaty University of Power Engineering and Telecommunications, named after Gumarbek Daukeyev (www.aues. edu. kz), e-mail newsletters, media, scientific journals, special events, publications, and portals of university partners, information stands, posters, banners, booklets, university portal, meetings with advisory councils, department meetings, etc. In addition, the university actively interacts with the public through publications in various media at the national, regional, and city levels. Information on the national development programs of the country and the educational system are published on the official website of the university, which is open to all users and provides access to a variety of information. For public feedback, the university provides an opportunity to contact the Rector through his personal blog on the main page of the website - The Almaty University of Power Engineering and Telecommunications, named after Gumarbek Daukeyev. The following sections are presented: Frequently Asked Questions, The Almaty University of Power Engineering and Telecommunications, named after Gumarbek Daukeyev, College, Bachelor's Degree, where users can get answers to questions and express opinions. Feedback is available on the official AUPET website. The student portal personalized information about students' achievements. transactions, and personal data, as well as the ability to send messages to administration. Access to complete and reliable information on their activities, admission rules, forms, and terms of study are available, as well as information on regularly participate in international programs partnerships. **Teachers** and events to inform applicants, students, and the public. The information about degree programs and events at AUPET is provided to interested parties through social (https://www.instagram.com/aues iit/, networks

https://www.instagr am.com/ aues\_it, https://facebook.com/aues.univer sity,

https://vk.com/auesuniversity, https://t.me/auesuni, https://youtube.com/channel/UCUnDG C1ddotzf 1fpn -hyXDA,

https://tiktok.com/@aues uni), as well as through the website of Almaty University of Energy and Communication (aues.edu.kz), email newsletters, media outlets, scientific journals, specialized events, publications and portals of

the university's partners, design of information stands, posters, banners, information booklets about the university, posting information on the university advisory board holding meetings of the portal, institute, department meetings, etc. In addition, the university actively interacts with the public through publications in various media at the national, regional, and city levels. Information on the national development programs of the country and the educational system is published on the official website of the university, which is open to all users and provides access to various information. For public feedback, the university provides an opportunity to contact the Rector through his personal blog on the main page of the website - The Almaty University of Power Engineering and Telecommunications, named after Gumarbek Daukeyev (aues.edu.kz). The following sections are also available: "Often asked questions" - The Almaty University of Power Engineering and Telecommunications, named after Gumarbek Daukeyev (aues .edu .kz), The Almaty University of Power Engineering and Telecommunications named after Gumarbek Daukeyev (aues Almaty Energy Communications named - "Preparation courses for UNT", (aues edu kz) "College", "Bachelor's degree" after Gumarbek Daukeyev questions can find answers their on the official to AUES aues.edu.kz.The student portal provides personalized information about achievements, financial transactions and personal data for students, as well as the ability to send messages to administration.

#### The analytical part

External expert commissions note that the management of the university and the academic staff of its degree programs systematically inform the public and interested parties about the university's activities through: posting information on the official website of AUPET; holding career guidance sessions in schools and colleges in the region; publishing in republican, regional, and city media, and social networks. However, the university website does not provide comprehensive and upto-date information on degree programs under consideration, such as expected learning outcomes for each program, qualifications and (or) certificates awarded completion, teaching methods, training programs, assessment systems (procedures, methods, and forms), information about passing points, and educational opportunities available to students. Information about graduate employment programs are not reflected in opportunities and changes to degree the department's website. There information about ongoing no events, student work, or attendance of experts in lectures. The external expert commission recommends ensuring timely publication of information on degree programs in accordance with changes. An analysis of the supporting documents and the university's website by an external expert commission revealed that the department's webpage does not provide complete information about the academic accredited degree programs. There is information available no regarding education, work experience, disciplines taught, areas of scientific interest,

publications, advanced training, etc. Information about academic staff can be found closed intra-university on a portal that does not guidance, public relations, or marketing policies within contribute to career the framework of ongoing degree programs at the university. The management of degree programs should therefore supplement the information on the academic staff on the departmental website. The survey of students conducted during the visit of the external expert committee showed that full satisfaction with the information provided to students about the courses, degree programs, and academic degrees received was 76.9%. Satisfaction with information regarding the requirements for successfully completing this degree program (specialization) was 84.6%.

Strengths/best practices for EP "6B06103 - Computer technology and software", "6B06102 - Information systems" "7M06103 - Computer technology and software": Not identified

Recommendations for degree programs "Computer Engineering and Software":

- 1. Management of the program should provide comprehensive information on the education, work experience, and scientific interests of the academic staff by the end of 2023/24. This information should be published on the university website.
- 2. University management should ensure that relevant information is published in a timely manner. Deadlines for publishing information should not exceed 10 days after the change is made.

The conclusions of the WEC based on the criteria for the Degree programs "6B06103 - Computer Engineering and Software", "6B062 - Information Systems" and "7M061 - Computer Engineering":

According to the standard "Information Disclosure", 10 criteria were disclosed, of which seven are satisfactory in the Education programs 6B04 "Computer Engineering" and 3 suggest improvement.

## (VII) REVIEW OF STRENGTHS/BEST PRACTICES FOR EACH STANDARD

For the degree programs "6B06103 - Computer Engineering and Software", "6B06102 - Information Systems", and "7M06103 - Computer Engineering and Software"

According to the standard "Management of Degree programs": No strengths have been identified for this standard.

According to the information management and reporting standard: No strengths have been identified for this standard either.

With regard to the development and approval of degree programs:

Preparation of students for professional certification has been identified as a strength.

Regarding the permanent monitoring and periodic evaluation of degree programs

no strengths have been identified.

In terms of student-centered learning, teaching, and assessment of academic performance

no strengths have been identified either.

The "Learner" standard not identified any strong sides.

According to the "the academic staff" standard: No identified any strong sides.

According to the "Educational resources and student support systems" standard: 1. Management of degree programs demonstrates the presence of classrooms, laboratories, and other facilities equipped with modern equipment that corresponds to the development of information technology (IT).

No strengths have been identified for the "Informing the public" standard.

## (VIII) OVERVIEW OF RECOMMENDATIONS FOR QUALITY IMPROVEMENT FOR EACH STANDARD

The For Degree programs "6B06103 - Computer engineering and software", "6B062 - Information systems" "7M063 - Computer Engineering and Software"

According to the "Degree program Management" standard:

- 1. Management of Degree programs 6B0104 "Computer Engineering" and 6B112 "Information systems" 7M113 "Software Engineering" should review the development plans for each degree program for the 2024-25 academic years, taking into consideration the strategic direction of the university and current development programs in the region and republic, target indicators and time frames, and those responsible for meeting them, with participation from external stakeholders.
- 2. The university management should ensure that the heads of the Degree programs 6B06103 "Computer Engineering and Software", 6B062 "Information Systems" and 7M063 "Computer Science and Software" receive advanced training in education management within the period of 2024.

According to the "Information Management and Reporting" standard:

Not identified

According to the standard "Development and approval of an degree program":

By the end of each calendar year, degree program managers must provide evidence for the uniqueness and individuality of their programs by analyzing similar programs implemented both domestically and internationally, considering the needs of stakeholders, in order to develop a strategy for promoting their programs and increasing enrollment.

The management of the degree programs 6B06103 "Computer Engineering and Software" and 6B062 "Information Systems" has developed an action plan for harmonizing the content of these programs with those of other universities to implement joint or double-degree programs until 2025.

According to the "Permanent monitoring and periodic evaluation of degree programs:

The management of degree programs on the university website update detailed information about training programs annually, including changes in structure, content and graduate model. These updates must be made within 10 days of relevant changes.

The management of the university conducts a separate, detailed, anonymous survey among students and the academic staff to assess the satisfaction with technical and digital means of implementing degree programs at the university, as well as to identify the needs of different groups of students. Based on the results of the survey, a plan for corrective and preventive measures is developed, which will

be implemented in accordance with the timeline of the university's development strategy and published on its website for the academic staff and students. The deadline for completing the project is before the beginning of the academic year 2024-25.

According to the "Student Centered Learning, Teaching and Assessment of Academic Performance" standard: None

According to "Students": None

According "the academic staff":

- 1. The management of degree programs aims to implement the development of the academic staff at MOOC (massive open online course) and implement the courses developed in the learning process until the 2025-2026 academic year.
- 2. It is planned to develop and implement a plan for attracting foreign teachers to conduct offline classes for students in accredited degree programs, aiming to demonstrate annual positive dynamics in academic mobility of teachers with an increase in 5%.

According to "Educational resources and student support systems,"

- 1. the university management should annually replenish the library with literature in the national language for accredited degree programs with an increase of 10%, including this in the development plans of the educational organization.
- 2. The university management should consider allocating funding for areas that provide the educational process with a Wi-Fi access network by the beginning of the 2024-2025 academic year.

According to standard "Informing the Public":

- 1. By the end of the academic year 2023-24, the management of degree programs should provide comprehensive information about educational, work experience, taught courses, and scientific interests on the university website.
- 2. University management should ensure the timely publication of relevant information regarding degree programs within 10 days of any changes made.

# (IX) REVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF EDUCATIONAL ORGANIZATION (1 page)

The List of EEC (External Expert Commission) recommendations related to the development of public organizations). These recommendations do not include measures to improve quality or comply with standards set by the Independent Accreditation and Rating Agency (IAAR).

- 1. During the 2024-2025 academic year, the university management should consider holding methodological conferences to improve teaching methods in educational disciplines.
- 2. In 2024, degree program management should organize regular training courses for the academic staff on higher education pedagogy and technical discipline teaching methods. All changes should be periodically recorded in department meetings. Advanced training courses should be organized for young teachers on student-centered principles of teaching and learning.
- 3. In order to improve the quality of teaching, the management of the degree program should prepare and implement a plan for introducing its own research on teaching methods in academic disciplines.

(X) RECOMMENDATION TO THE ACCREDITATION BOARD

(XI) Appendix 1: Evaluation Table - "Conclusion of the External Expert Commission"

The position of the educational organization No Ŋo Evaluation criteria Unsatisfactor  $\Pi/\Pi$  $\Pi/\Pi$ Satisfactory owerful Suggests The standard "Degree program Management" The university should demonstrate the of goals and strategies for development the Degree program development based 1 on an analysis of external and internal involvement factors, with the broad of various stakeholders. The quality assurance policy should reflect the relationship between scientific 2 2 +research, teaching and learning The university demonstrates the 3 3 development of a culture of quality assurance Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including in the implementation ioint/double-degree education and academic mobility The degree program management ensures transparency in the development of an degree program development plan based on an analysis of its functioning, the real 5 5 +positioning of the university and the orientation of its activities to meet the needs of the state, employers, stakeholders and students The degree program management demonstrates functioning the mechanisms for the formation and regular 6 6 +revision of the degree program development plan and monitoring its implementation, evaluating the

		achievement of learning goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of degree programs			
7	7	The management of the degree program should involve representatives of interested groups, including employers, students and teaching staff in the formation of an degree program development plan	+		
		The management of the degree program must demonstrate the individuality and uniqueness of the degree program			
8	8	development plan, its consistency with national development priorities and the development strategy of the educational		+	
4		organization  The university must demonstrate a clear definition of those responsible for	_		
9	9	business processes within the framework of the degree program, the distribution of staff responsibilities, and the differentiation of functions of collegial bodies	+	3	
10	10	The management of the degree program ensures coordination of the activities of all persons involved in the development and management of the degree program, and its continuous implementation, as well as involves all interested parties in this process	1		
11	11	The management of Degree programs should ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and appropriate decision-making	+		
12	12	The management of degree programs should carry out risk management	+		

13	13	The management of Degree programs should ensure the participation of representatives of interested persons (employers, teaching staff, students) in the collegial management bodies of the degree program, as well as their representativeness in making decisions on the management of the degree program		+		
14	14	The university must demonstrate innovation management within the framework of Degree programs, including the analysis and implementation of innovative proposals		+		
15	15	The management of Degree programs should demonstrate their openness and accessibility to students of teaching staff, employers and other interested parties		+		
16	16	The management of Degree programs confirms the completion of training in educational management programs		_	+	
17	17	The management of Degree programs 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		+	3	
Total	acco	rding to the standard	0	15	2	0
The I	nforn	nation Management and Reporting Standard		A	7	
18	1	The university must ensure the functioning of the information collection, analysis and management system based on modern information and communication technologies and software		+		
19	2	The management of Degree programs demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system		+		
20	3	The management of Degree programs demonstrates the existence of a reporting system reflecting the activities of all structural divisions and departments within the framework of Degree programs, including an assessment of their effectiveness		+		

21	4	The university should determine the frequency, forms and methods of evaluating the management of Degree programs, the activities of collegial bodies and structural units, and senior management	+		
22	5	The university must demonstrate a mechanism to ensure the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision	+		
23	6	The university demonstrates the involvement of students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them	+		
24	7	The management of Degree programs should demonstrate the availability of communication mechanisms with students, employees and other stakeholders, including conflict resolution	+		
25	8	The university must ensure that the degree of satisfaction with the needs of teaching staff, staff and students within the framework of Degree programs is measured and demonstrate evidence of the	+	1	
26	9	elimination of the detected shortcomings The university should evaluate the effectiveness and efficiency of its activities, including in the context of	+		
		Degree programs  The information collected and analyzed by the university within the framework of Degree programs should take into account:			
27	10	key performance indicators	+		
28	11	, the dynamics of the student body in terms of forms and types	+		
29	12	, the level of academic achievement, student achievements and expulsion	+		
30	13	, student satisfaction with the implementation of Degree programs and the quality of education at the university	+		

31	14	, the availability of educational resources and support systems for students		+		
32	15	, employment and career growth of graduates		+		
33	16	Students, staff and teaching staff must document their consent to the processing of personal data		+		
34	17	The management of Degree programs should help to provide all necessary information in the relevant fields of science		+		
Total	acco	rding to the standard	0	17	0	0
The		ndard "Development and Approval of				
an De	egree	program"				
35	1	The university must demonstrate the existence of a documented procedure for the development of Degree programs and its approval at the institutional level		+		
36	2	The university must demonstrate the compliance of the developed Degree programs with the established goals and planned learning outcomes		+		
37	3	The management of Degree programs should determine the impact of disciplines and professional practices on the formation of learning outcomes		+	1	
38	4	The university can demonstrate the existence of a graduate model of Degree programs describing learning outcomes and personal qualities		+		
39	5	Qualifications awarded upon completion of Degree programs should be clearly defined, explained and correspond to a certain level of NSC, QF-EHEA		+		
40	6	The management of Degree programs should demonstrate the modular structure of the program based on the European Credit Transfer and Accumulation System, ensure that Degree programs and its modules (in terms of content and structure) meet the set goals with a focus on achieving the planned learning outcomes		+		

41	7	The management of Degree programs should ensure that the content of academic disciplines and learning outcomes correspond to each other and the level of study (bachelor's, master's, doctoral studies)		+		
42	8	The management of Degree programs must demonstrate the conduct of external examinations of Degree programs.		+		
43	9	The management of Degree programs must provide evidence of the participation of students, teaching staff and other stakeholders in the development of Degree programs, ensuring their quality		+		
44	10	The management of Degree programs should demonstrate the positioning of Degree programs in the educational market (regional/national / international), its uniqueness			+	
45	11	An important factor is the possibility of preparing students for professional certification			)	
46	12	An important factor is the availability of double-degree Degree programs and/or joint Degree programs with foreign universities			+	
		rding to the standard	1	9	2	0
The	stand	ard "continuous monitoring and periodic		- 4		_
evalu	ation	of degree programs".				,
		The university must ensure the revision of the content and the structure of Degree programs taking into account changes in	1			
47	1	the labor market, the requirements of		+		
		employers The procedures are aimed at continuous improvement of Degree programs				
48	2	Monitoring and periodic evaluation of Degree programs should consider:		+		
		the content of programs in the context of				
		the latest achievements of science and				
		technology in a particular discipline				
49	3	changes in the needs of society and the professional environment		+		

50	4	the workload, academic performance and graduation of students		+		
51	5	the effectiveness of student assessment procedures		+		
52	6	the needs and degree of satisfaction of students		+		
53	7	the correspondence of the educational environment and the activities of support services to the goals of Degree programs		+		
54	8	All interested parties should be informed of any planned or undertaken actions regarding Degree programs. All changes made to Degree programs must be published		+		
55	9	Support services should identify the needs of different groups of students and their degree of satisfaction with the organization of training, teaching, assessment, and development of Degree programs in general	\	1	+	
56	10	The university must ensure the revision of the content and the structure of Degree programs taking into account changes in the labor market, the requirements of employers The procedures are aimed at continuous improvement of Degree			7	
Total	2000	programs rding to the standard	0	8	2	0
		ard "Student-centered learning, teaching and	U	0		U
		t of academic performance"		47		
57	1	The management of Degree programs should ensure respect and attention to different groups of students and their needs, providing them with flexible learning paths		+		
58	2	The management of Degree programs should ensure teaching based on modern achievements of world science and practice in the field of training, the use of various modern teaching methods and evaluation of learning outcomes that ensure the achievement of the goals of Degree programs, including		+		

		competencies, skills to perform scientific work at the required level			
59	3	The management of Degree programs should determine the mechanisms for distributing the educational load of students between theory and practice within the framework of Degree programs, ensuring the development of the content and achievement of the goals of Degree programs by each graduate	+		
60	4	An important factor is the availability of own research in the field of teaching methods of disciplines of Degree programs	+		
61	5	The university must ensure that the procedures for evaluating learning outcomes are consistent with the planned results and goals of Degree programs	+		
62	6	The university must ensure consistency, transparency and objectivity of the mechanism for evaluating the learning outcomes of Degree programs. Criteria and methods for evaluating learning outcomes should be published in advance	+	3	
63	7	Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area	+		
64	8	The management of Degree programs should demonstrate the existence of a feedback system for the use of various teaching methods and evaluation of learning outcomes	+		
65	9	The management of Degree programs should demonstrate support for the autonomy of students with simultaneous guidance and assistance from the teacher	+		
66	10	The management of Degree programs must demonstrate the existence of a procedure for responding to student complaints	+		

Total	acco	rding to the standard	0	10	0	0
The "	Stude	ents" standard				
67	1	The university must demonstrate the policy of forming a contingent of students and ensure transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) must be defined, approved, and published		+		
68	2	The management of Degree programs should provide for special adaptation and support programs for newly enrolled and foreign students		+		
70	3	The university must demonstrate compliance of its actions with the Lisbon Recognition Convention, including the availability and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and nonformal education  The university should provide an opportunity for external and internal academic mobility of students, as well as assist them in obtaining external grants for		+ +	7	
71	5	The university should actively encourage students to self-education and development outside the main program (extracurricular activities)		+	7	
72	6	An important factor is the availability of a support mechanism for gifted students	4	4		
73	7	The university should demonstrate cooperation with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers" ENIC/NARIC in order to ensure comparable recognition of qualifications		+		
74	8	The university must provide students with internship places, demonstrate the procedure for facilitating the employment		+		

		of graduates, and maintain contact with them				
75	9	The university must demonstrate the procedure for issuing graduates with documents confirming their qualifications, including the achieved learning outcomes		+		
76	10	The management of Degree programs must demonstrate that graduates of the program have skills that are in demand in the labor market and that these skills are really in demand in the labor market		+		
77	11	The management of Degree programs should demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates				
78	12	An important factor is the presence of an active alumni association/association		+		
Total	acco	rding to the standard	0	12	0	0
The s	tanda	rd "The academic staff"			10	
79	1	The university should have an objective and transparent personnel policy in the context of degree programs, including hiring (including invited academic staff), professional growth and staff development, ensuring the professional competence of the entire staff		+	1	
80	2	The university must demonstrate that the qualitative composition of teaching staff meets the established qualification requirements, the university's strategy, and the goals of degree programs		+		
81	3	The management of degree programs should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning and teaching		+		
82	4	The university should provide opportunities for career growth and professional development of teaching staff, including young teachers		+		
83	5	The university should involve specialists from relevant industries with professional		+		

		competencies that meet the requirements of degree programs in teaching				
84	6	The university must demonstrate the existence of a mechanism for motivating the professional and personal development of teaching staff		+		
85	7	The university should demonstrate the widespread use of teaching staff of information and communication technologies and software in the educational process (for example, on-line training, e-portfolio, MOOC(massive open online course), etc.)			+	
86	8	The university should demonstrate the focus on the development of academic mobility, attracting the best foreign and domestic teachers			+	
87	9	The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity at the university, determine the contribution of degree programs, including invited ones, to achieving the		+		
88	10	goals of degree programs  An important factor is the involvement of teaching staff in the development of the economy, education, science and culture of the region and the country		1	ľ	)
		rding to the standard ard "Educational resources and student	0	8	2	0
		stems"	4			
89	1	The university must ensure that educational resources, including logistical and infrastructure, meet the objectives of the degree program		+		
90	2	The management of degree programs must demonstrate the presence of classrooms, laboratories and other facilities equipped with modern equipment and ensuring the achievement of the goals of degree programs	+			
		The university must demonstrate that the information resources meet the needs of the university and the degree programs				

		being implemented, including in the following areas:			
91	3	technological support for students and teaching staff in accordance with degree programs (for example, online learning, modeling, databases, data analysis programs)	+		
92	4	library resources, including a fund of educational, methodological and scientific literature on general education, basic and profile disciplines on paper and electronic media, periodicals, access to scientific databases		+	
93	5	examination of research results, graduation papers, dissertations on plagiarism	+		
94	6	access to educational Internet resources	+		
95	7	functioning of WI-FI on its territory	_	+	
96	8	The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, publishing the results of research work of teaching staff, staff and students	+	3	
97	9	The university should strive to ensure that the educational equipment and software used for the development of degree programs are similar to those used in the relevant sectors of the economy	1	7	
98	10	The management of degree programs should demonstrate the availability of support procedures for various groups of students, including information and counseling	+		
99	11	The management of degree programs should show the availability of conditions for the student's advancement along an individual educational trajectory	+		
100	12	The university must take into account the needs of various groups of students (adults, working, foreign students, as well as students with special educational needs)	+		

101	13	, the university must ensure that the infrastructure meets safety requirements		+		
Total	acco	rding to the standard	1	10	2	0
The s	standa	rd "Informing the public"				
		The information published by the				
		university must be accurate, objective,				
102	1	relevant and reflect all areas of the			+	
		university's activities within the				
		framework of the degree program				
		Public awareness should include support				
		and clarification of the national				
103	2	development programs of the country and		+		
		the system of higher and postgraduate				
	1	education				
		The university management should use a	7			
		variety of ways to disseminate information				
104	3	(including mass media, web resources,		+		
		information networks, etc.) to inform the		M		
		general public and interested persons				
		The information published by the	- 6			
		university about the degree program			1	
		should be objective and relevant and				
		include:		_		
105	4	the purpose and planned results of degree				
105	4	programs, the assigned qualifications		+		
		, information and the system for				
106	5	evaluating students' academic		+	-	
		achievements		- 4		
		, information about academic mobility				
107	6	programs and other forms of cooperation		+		
	*	with partner universities, employers	1	1		
	١,	, information about opportunities for the				
108	7	development of personal and professional	1	+		
		competencies of students and employment				
		data reflecting the positioning of degree				
400		programs in the educational services				
109	8	market (at the regional, national, and		+		
		international levels)				
		An important factor is the publication on				
		open resources of reliable information				
110	9	about teaching staff, in the context of			+	
		personalities				
	<u> </u>	Personalities	<u> </u>			

**Unofficial Translation** 

111	10	The university must publish audited financial statements on degree programs on its own web resource		+		
112	11	The university should post information and links to external resources based on the results of external assessment procedures		+		
113	12	An important factor is the placement of information about cooperation and interaction with partners, including scientific/consulting organizations, business partners, social partners and educational organizations		+		
Total	acco	rding to the standard	0	10	2	0
Total			2	99	12	0



date and time	EEC work with	,				
	planed groups	participants Unofficial Translation				
9 march 2024						
15.00-16.00 According to Astana time	Preliminary meeting of the EEC	IAAR External Experts				
10 march 2024						
On schedule during the day	Arrival of members of	the External Expert Commission				
20.00	Dinner	IAAR External Experts				
day 1st: 11 march 2024						
08.10-09.00	Transfer from the hotel to the University	University coordinator - Azhar Erlanovna N (Director of the Department of Academi 87772983128				
09.00-09.15	Distribution of responsibilities of experts solution of organizational issues	IAAR External Experts				
09.15-09.45	Interview with the rector	Syzdykov Murat Kanatovich				
09.45-10.00	Technical break					
10.00-10.40	Interview with vice-rectors	Vice-rector for Academic Affairs – Aigul Sa Sarenova, Vice-Rector for Social and Educational Worl Kamalbekuly Kadylbekov, Head of the Rector's Office – Yesimzhan Kuanyshevich				
10.40-10.50	Technical break					
10.50-11.30	Interview with heads of structural divisions	Digital officer – Urazakov Margulan Maksutovich, Head of the registrar's office – Vera Vasilievna Ne Financial Director - Gulziya Salatovna Rakhmetov Director of the Department of Academic Affairs - Mankhanova Azhar Erlanovna, Head of the Academic Counseling Center – Kalendar Erlanovna Center – Kalendar Malikkyzy, Director of the Department of Youth Policy – Kasenkhanuly,				

		Chief librarian - Natalya Stepanovna Netesova, The executive secretary of the admissions co Almuratova Kamshat Bimuratovna
11.30-11.45	Exchange of views among members of the external expert commission	
11.45-12.30	Interview with department heads and OOP leaders	HEAD OF DEPARTMENTS: Department of IT Engineering - Tuken Muratbekovna, Department of Electric Power Engineering Tanibergenovich Amitov, Department of Renewable and Alternative Energ Shynybai Zhandos Sapargalievich, Department of Ecology and Management in Er Abikenova Asel Amangeldievna, Department of Space Engineering - Tolendiuly Sar Department of Electronic Engineering - Kudaibergenovna Orazalieva, OP DEVELOPERS: EP Entrepreneurship in Engineering - head Nurmur Syreuovna, EP Life safety and environmental protectio Mikhailovna Tyshchenko, Electric power industry - Mikhail Vladimirovich B Electric power systems - Umbetkulov Ertugan Koz Electrical power systems - Uteshkalieva Shynbolatovna, Computer technology and software; - Utegenova A Renewable energy technologies - Soltanaev A., Automated electromechanical systems - Almuratov Modern innovative technologies of renewable Tergemes K.T. Instrumentation - Yusupova S.A.
12.30-13.00	Work of the external experts	external experts IAAR

13.00-14.00	Dinner	
14.00-14.15	Exchange of views among members of the external expert commission	
14.15-15.00	Interview with the academic staff OOP	Annex 1
15.00-15.15	Technical break	
15.00-16.00	Survey of teaching staff (in parallel)	Annex 1
15.15-16.00	Interviews with students	Annex 2
16.00-17.00	Questioning of students (in parallel)	Annex 2
16.15-18.00	Visual inspection of	Route sheet
18.00-19.00	Work of external experts, discussion of the results of the first day	external experts IAAR
19.00-20.00	Dinner	
day 2nd: 12 march 2024		
08.10-09.00	Transfer from the hotel to the University	
09.00-09.15	Work of the external experts	

09.15-10.50	Attendance at scheduled classes (Attachment: links to classes)	external experts IAAR Annex 4
10.50-11.30	Meeting with stakeholders (representatives of practice bases and employers)	Annex 5
11.30-11.40	Technical break	
11.40-13.00	Working with documents (documents must be uploaded to the cloud in advance)	
13.00-14.00	Dinner	
14.00-14.15	Technical break	
14.15-15.00	Interview with graduates	Annex 6
15.00-17.00	Selective visits to practice bases	Annex 7
17.00-17.15	Technical break	
17.00-18.00	Work of the EEC, discussion of the results of the second day and profile parameters (recording is being carried out)	
18.30-19.30	Dinner	
Day third: 13 march 2024		
08.10-09.00	Transfer from the hotel to the University	
09.00-10.00	Work of the EEC development and discussion of recommendations (recorded)	external experts IAAR

10.00-10.20	Technical break	
10.20-12.30	Work of the EEC discussion, decision-making by voting (recorded)	external experts IAAR
12:30-13:00	Final meeting of the EEC with the university management	
13.00-14.00	lunch	
14.00-15.00	Work of the EEC, Discussion of the results of quality assessment	external experts IAAR
15.00-15.15	Technical break	
15.15-18.00	Work of the EEC, Discussion of the results of quality assessment	external experts IAAR

Appendix 2. PROGRAM OF THE VISIT TO THE EDUCATIONAL ORGANIZATION
STAGE 1 SPECIALIZED ACCREDITATION
Date of visit: March 11-13, 2024

(II) Appendix 3. RESULTS OF The academic staff SURVEY (XIII) The results of an anonymous survey of the the academic staff Almaty University of Power Engineering and Telecommunications 1. Total number of questionnaires: 60

## 2. 3. Position at work

professor	7	11,7%
Assistant professor	13	21,7%
Senior Lecturer	29	48,3%
teacher	9.	15%
Head of Department	1.	1,7%
acting professor	1	1,7%
acting associate professor	0	0%

4. Academic degree, academic title

Honored Worker of the Republi of Kazakhstan	o o	0%
Ph.D	4	6,7%
Candidate PhD	12	20%
Master's studies	36	60%
PhD		13,3%
professor	5	8,3%
acting professor	3	5%
no	1	1,7%

5. Work experience

Less than 1 year	2	3,3%
1 year – 5 years	16	26,7%
Over 5 years	42	70%

№	The questions	Very good	Good	Relati vely bad	Bad	Very bad	Not answered
6	To what extent does the content of the degree program meet your scientific and professional interests and needs?	34 (56,7 %)	26 (43,3 %)	0. (0%)	0. (0%)	0. (0%)	-

7	How do you assess the opportunities provided by the University for the professional development of teaching staff	22. (36,7 %)	34. (56,7 %)	4 (6,7%)	0. (0%)	0 (0%)	-
8	How do you assess the opportunities provided by the University for the career growth of teaching staff	17. (28,3 %)	41 . (68,3 %)	2 (3,3%)	0 (0%)	0. (0%)	-
9	How do you assess the degree of academic freedom of the faculty	17 (28,3 %)	43 (71,7 %)	0 чел. (0%)	0 (0%)	0 (0%)	-
	To what extent can teachers use their own						
1 0	• Strategies	25 (41,7 %)	33 (55% )	1 (1,7%)	1 (1,7 %)	0. (0%)	-
1 1	Methods	26 (43,3 %)	32 (53,3 %)	2 (3,3%)	0 (0%)	0 (0%)	-
1 2	• Innovations in the learning process	21 (35%)	37 (61,7 %)	2 (3,3%)	0 (0%)	0 (0%)	-
3	How do you assess the work on the organization of medical care and disease prevention at the university?	12. (20%)	41 (68,3 %)	6 (10%)	1 (1,7 %)	0 (0%)	-
1 4	How is the management of the educational institution paying attention to the content of the degree program?	22 (36,7 %)	38 (63,3 %)	0 (0%)	0 (0%)	0 (0%)	-
5	How do you assess the sufficiency and accessibility of the necessary scientific and educational literature in the library?	17 (28,3 %)	41 (68,3 %)	2. (3,3%)	0 (0%)	0 (0%)	-

1	D						
6	Do you assess the level of conditions created that take into account the needs of different groups of students?	11 (18,3 %)	43 (71,7 %)	6 (10%)	0 (0%)	0 (0%)	-
	Evaluate the accessibility of the manual						
1 7	• Students	17 . (28,3 %)	43 . (71,7 %)	0 (0%)	0 (0%)	0 (0%)	-
1 8	• Teachers	15 . (25%)	43 . (71,7 %)	2. (3,3%)	0 (0%)	0 (0%)	-
1 9	Evaluate the involvement of the PPP in the process of making managerial and strategic decisions	9. (15%)	43 . (71,7 %)	7 (11,7 %)	1 (1,7 %)	0 (0%)	-
0	How is the innovation activity of teaching staff encouraged?	17 . (28,3 %)	39 . (65% )	4. (6,7%)	0 (0%)	0 (0%)	-
2 1	Evaluate the level of feedback between the teaching staff and the management	17 (28,3 %)	40 . (66,7 %)	2. (3,3%)	1 . (1,7 %)	0. (0%)	-
2 2	What is the level of stimulation and involvement of young professionals in the educational process?	22 (36,7 %)	33 . (55% )	5 (8,3%)	0. (0%)	0 (0%)	-
2 3	Evaluate the opportunities created for professional and personal growth for each teacher and employee	20 (33,3 %)	37 (61,7 %)	3 (5%)	0 (0%)	0 (0%)	-
2 4	Assess the adequacy of recognition of the potential and abilities of teachers	14 (23,3 %)	44 (73,3 %)	2 (3,3%)	0 (0%)	0 (0%)	-
_	How is the work done						
2 5	Academic mobility	14.	42	3. (5%)	1	0. (0%)	-

	T	(22.2	( <b>5</b> 00)		(1.5	l	
		(23,3	(70%		(1,7		
	D C 1 1	%)	)		%)		
2	• Professional	20.	36	3	1	0.	
6	development of	(33,3	(60%	(5%)	(1,7	(0%)	-
	teaching staff	%)	)	, ,	%)	` '	
	Appreciate the support						
	of the university and its						
	management						
2	• Scientific research	18	38.	3	1	0	
7	initiatives of the	(30%)	(63,3	(5%)	(1,7	(0%)	-
	Faculty	(3070)	%)	(370)	%)	(070)	
2	• Development of new	23	37				
8	degree			0	0	0	
	programs/academic	(38,3	(61,7	(0%)	(0%)	(0%)	-
	disciplines/methods	%)	%)				
	Assess the level of						
	faculty's ability to						
	combine teaching						
2	• With scientific	17	30	11.	2.	0	
9	research	(28,3	(50%	(18,3	(3,3	0	_
		%)	)	%)	%)	(0%)	
3	• With practical	13.	37.	8	2.		
0	activities	(21,7	(61,7	(13,3	(3,3	0	_
		%)	%)	%)	%)	(0%)	
3	Assess how well the	/		,			
1	students' knowledge						
	obtained at this	0.1	37.				
	university corresponds	21.	(61,7	2.	0.	0.	_
	to the realities of the	(35 %)	%)	(3,3%)	(0%)	(0%)	
	requirements of the		, , ,				
	modern labor market						
3	How does the						
$\frac{3}{2}$	management and						
	administration of the	11.	41.	6.	1.	1.	
	university perceive	(18,3	(68,3	(10%)	(1,7 %)	(1,7%	-
	criticism in their	%)	%)	(10/0)	%)	)	
	address?						
3	Evaluate how well your						
$\frac{3}{3}$	academic workload	17.	37.		1.		
	meets your	(28,3	(61,7	5.		0.	
	,	(28,3 %)	(01,7 %)	(8,3%)	(1,7 %)	(0%)	
	1	70)	70)		70)		
3	capabilities  Evaluate the focus of			2.	0.	0.	
	Evaluate the focus of	19.	39.				-
4	degree			(3,3%)	(0%)	(0%)	

	programs/training	(31,7	(65%				
	programs on the	%)	)				
	formation of students'						
	skills and abilities to						
	analyze the situation						
	and make forecasts						
3	Evaluate how the						
5	degree program meets						
	the expectations of the	19.	40.	1.	0.		
	labor market and	(31,7)	(66,	(1,7%)	(0%)	(0%)	-
	employers in terms of	(31,7)	%)	(1,770)	(0/0)	(0/0)	
	content and quality of						
	implementation						

36. Why do you work at this university?

I am attracted by the values and objectives of this university, focused on the development of an innovative educational environment for all participants in the educational process. I am confident that my contribution to educational activities will help students successfully achieve their educational and career goals at AUPET.

Good laboratory base in physics and engineering

I am a graduate of this university

Level is high

AUES has a reputation as one of the best universities in the country.

It is my first step in this university

Team, one of the leading technical universities

I graduated from this university

the reason why I choose this university is graduates will be freedom absolutely.

Only here there is a direction of renewable energy sources

I am a graduate of Energo, in the future I want to invest in my Energo

I am a graduate of AUES

Opportunity for professional growth

I graduated this university and so I will choose to strengthen my knowledge

Graduated from this university

I studied here and selfdeveloped

No corruption

Good team, fair working conditions

I like this university

I am one of the graduates

Because AUPET is one of the leading universities in the country

In the technical direction of the university

AUES graduate, you see many advantages of electric power industry

AUES is the leading university of the Republic of Kazakhstan. There is an opportunity to realize your professional and personal aspirations

I see the connection between my future profession and AUES

This is one of the best universities, I like working here

I think that I can contribute to the educational process by helping students develop and achieve their goals

Technical information about the rules and regulations to take care of your food Likes to share knowledge in the field of energy

AUES is one of the strongest technical universities in Kazakhstan

there are departments of my future specialization

Good university

I like working here

Because my pipes are valued here

I am proud to work at AUES named after Gumarbek Daukeev

Stability

really prestige university

I like the composition of the teaching staff

The work of the teaching staff, the clear organization and control of the educational process are valued here.

I think AUES is one of the modern universities

As a graduate and as an employee of the university, I can say that AUPET is one of the best technical universities in Kazakhstan

matches my education and qualifications

Technical University

Discipline, responsibilities.

An excellent university, according to reviews from my colleagues from other universities, friends, relatives and graduates, has an engineering direction that matches my education

This is my home university

this is my home university

Comfortable conditions have been created for me to realize my potential

Favorable working conditions

Because here I can apply my knowledge and skills in teaching students, and also have the opportunity to contribute to the educational process.

for the sake of young people

The only university specialized in energy

I started my studies here with a bachelor's degree, and I really liked the teaching staff and when I was invited to work with them, I gladly agreed

37. How often are master classes and readings of topics with the participation of practitioners held as a part of your course?

very often	4 .	6,7%
often	20	33,3%
sometimes	34	56,7%
very rare	1	1,7%
never	1	1,7%

38. How often do external teachers (local and foreign) participate in the learning process?

very often	5	8,3%
often	16.	26,7%
sometimes	32	53,3%
very rare	6	10%
never	1	1,7%

39. How often do you encounter the following problems in your work: (please give the answer on each line.

	often	sometimes	never	No answers				
Lack of classrooms	6.	30.	24 .	_				
	(10%)	(50%)	(40%)					
Imbalance of teaching	6.	29 .	25 .	-				
load by semester	(10%)	(48,3%)	(41,7%)					
Inaccessibility of	0.	32 .	28.	-				
necessary literature in the	(0%)	(53,3%)	(46,7%)					
library								
Overcrowding of study	10.	23.	27.	-				
groups (too many	(16,7%)	(38,3%)	(45%)					
students in a group)								
Inconvenient schedule	5.	24.	31.	-				
	(8,3%)	(40%)	(51,7%)					
Inadequate classroom	9.	31.	20.	-				
conditions	(15%)	(51,7%)	(33,3%)					
Lack of Internet	13.	33.	14.	-				
access/weak Internet	(21,7%)	(55%)	(23,3%)					
Lack of interest among	3.	34.	23.	-				
students in learning	(5%)	(56,7%)	(38,3%)					
Late receipt of	0.	23.	37.	-				
information about events	(0%)	(38,3%)	(61,7%)					
Lack of technical	9.	36.	15.	-				
equipment in classrooms	(15%)	(60%)	(25%)					
Other problems	✓ -							
	✓ No							
	✓ No proble	em						
	_		anubliah tha	ortiolo				
		no time left to	•					
		ng of lectur	e nails, no	ot enough				
	projectors.							
	✓ I don't notice any obvious problems							
	✓ Lack of Internet.							
	✓ NO ELEC	CTRICITY						
	<b>✓</b> None							

- ✓ Insufficient number of sockets in the classroom. Lack of technical support for lecture halls
- **√** no
- ✓ deficit of classroom fund
- ✓ 1. It is necessary to take into account coauthorship in articles in Scopus journals not only in the order of 1st priority (1st author, 2nd co-author, 3rd co-author, etc.), since it is quite difficult to be 1st author, there are usually 1-2 authors to defend dissertations, but take into account the very participation of the teacher. Each such article with the name of our university "AUES named after G. Daukeev" is published in major publications abroad, and this is an image
- **✓** no problem
- √ No problem
- ✓ Lack of projectors and monitors
- √ No problem
- **√** no
- ✓ The toilet doesn't work early in the morning
- ✓ Not available, except for those listed above
- **✓** Internet quality
- ✓ there were no problems
- √ Internet problems
- ✓ Only if the amount of legal money in wages is honest

40. There are many different sides and aspects in the life of a university that in one way or another affect every teacher and employee. Rate, please, how satisfied you are:

	Completel	Partially	do not	difficulty
question	y agree	agree	agree	answerin
				g
The attitude of the	37.	21.	0.	2.
university management	(61,7%)	(35%)	(0%)	(3,3%)
towards you				
Relationships with the	45.	12.	0.	3.
management	(75%)	(20%)	(0%)	(5%)

Dalations with collegenes	55.	5.	Λ	Λ
Relations with colleagues			0.	0.
at the department	(91,7%)	(8,3%)	(0%)	(0%)
Participation in		14.	3.	4.
management decision	(65%)	(23,3%)	(5%)	(6,7%)
making				
Relations with students	55.	5.	0.	0.
	(91,7%)	(8,3%)	(0%)	(0%)
Recognition of your	41.	15.	1.	3.
successes and	(68,3%)	(25%)	(1,7%)	(5%)
achievements by the				
administration				
Support for your	36.	20.	0.	4.
suggestions and comments	(60%)	(33,3%)	(0%)	(6,7%)
Activities of the university	39.	3.	2.	3.
administration	(65%)	(26,7%)	(3,3%)	(5%)
Terms of payment	27.	24.	6.	3.
	(45%)	(40%)	(10%)	(5%)
Working conditions, list	35.	20.	1.	4.
and quality of services	(58,3%)	(33,3%)	(1,7%)	(6,7%)
provided at the university				
Occupational health and	44.	14.	1.	1.
safety	(73,3%)	(23,3%)	(1,7%)	(1,7%)
Managing changes in	29.	24.	(1,7%)	5.
university activities	(48,3%)	(40%)	(3,3%)	(8,3%)
Providing a social package:		21.	7.	10.
rest, sanatorium treatment,	(36,7%)	(35%)	(11,7%)	(16,7%)
etc.				
Organization and quality of	36.	17.	4.	3.
food at the university	(60%)	(28,3%)	(6,7%)	(5%)
Organization and quality of	30.	21.	3.	6.
medical care	(50%)	(35%)	(5%)	(10%)

## (XIV) Appendix 4. RESULTS OF THE STUDENT SURVEY

Degree program (Your degree program) Gender

men 2. 15,4% women 11. 84,6%

Rate, please, how satisfied you are:

questions	Completely agree	Partially agree	Partially do not agree	do not agree	difficulty answering
Relations with the dean's office	11 (84,6 %)	1 (7,7 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
Availability of the dean's office	11 (84,6% )	2 (15,4 %)	0 (0 %)	0 (0 %)	0 (0 %)
Accessibility and responsiveness of the university management	10 (76,9 %)	3 (23,1 %)	0 (0 %)	0 (0 %)	0 (0 %)
Availability of academic consultation	7 (53,8 %)	6 (46,2 %)	0 (0 %)	0 (0 %)	0 (0 %)
Support with educational materials during the learning process	8 (61,5 %)	(30,8 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
Availability of counseling on personal problems	9 (69,2 %)	3 (23,1 %)	0 (0 %)	0 (0 %)	1 (7,7 %)
Relationship between student and teacher	9 (69,2 %)	4 (30,8 %)	0 (0 %)	0 (0 %)	0 (0 %)
Financial and administrative services of the educational institution	8 (61,5 %)	3 (23,1 %)	2 (15,4 %)	0 (0 %)	0 (0 %)
Availability of health services	8 (61,5 %)	3 (23,1 %)	0 (0 %)	0 (0 %)	2 (15,4 %)
The quality of medical care at the university	8 (61,5 %)	2 (15,4 %)	1 (7,7 %)	0 (0 %)	2 (15,4 %)
Level of accessibility of library resources	10 (76,9 %)	3 (23,1 %)	0 (0 %)	0 (0 %)	0 (0 %)
The quality of services provided in libraries and reading rooms	1	2 (15,4 %)	0 (0 %)	0 (0 %)	0 (0 %)
Satisfaction with the existing educational resources of the university	9 (69,2 %)	3 (23,1 %)	1 (7,7 %)	0 (0 %)	0 (0 %)

questions	Completely agree	Partially agree	Partially do not agree	do not agree	difficulty answering
Availability of computer classes	9 (69,2 %)	3 (23,1 %)	0 (0 %)	1 (7,7 %)	0 (0 %)
Availability and quality of Internet resources	8 (61,5 %)	5 (38,5 %)	0 (0 %)	0 (0 %)	0 (0 %)
Content and information content of the website of educational organizations in general and faculties (schools) in particular		1 (7,7 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
Study rooms, auditoriums for large groups	8 (61,5 %)	2 (15,4 %)	3 (23,1 %)	0 (0 %)	0 (0 %)
Lounges for students (if available)	6 (46,2 %)	2 (15,4 %)	1 (7,7 %)	3 (23,1 %)	1 (7,7 %)
Clarity of procedure for taking disciplinary action	9 (69,2 %)	2 (15,4 %)	0 (0 %)	0 (0 %)	2 (15,4 %)
The quality of the degree program as a whole	9 (69,2 %)	(30,8 %)	0 (0 %)	0 (0 %)	0 (0 %)
The quality of degree programs in the EP	12 (92,3 %)	1 (7,7 %)	0 (0 %)	0 (0 %)	0 (0 %)
Teaching methods in general	11 (84,6 %)	2 (15,4 %)	0 (0 %)	0 (0 %)	0 (0 %)
Quick response to feedback from teachers regarding the educational process	9 (69,2 %)	4 (30,8 %)	0 (0 %)	0 (0 %)	0 (0 %)
The quality of teaching in general	10 (76,9 %)	3 (23,1 %)	0 (0 %)	0 (0 %)	0 (0 %)
Academic load/requirements for the student	r '	3 (23,1 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
Requirements of teaching staff for a student		2	0 (0 %)	0 (0 %)	0 (0 %)

questions	Completely agree	Partially agree	Partially do not agree	do not agree	difficulty answering
	(84,6 %)	(15,4 %)			
Information support and explanation before entering the university of the rules of admission and the strategy of the degree program (specialty)	(84.6	1 (7,7 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
Informing the requirements in order to successfully complete this degree program (specialty)	(84,6 %)	1 (7,7 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
The quality of examination materials (tests and examination questions, etc.)	9 (69,2 %)	4 (30,8 %)	0 (0 %)	0 (0 %)	0 (0 %)
Objective assessment of knowledge, skills and other educational achievements	11 (84,6 %)	2 (15,4 %)	0 (0 %)	0 (0 %)	0 (0 %)
Available computer classes	11 (84,6 %)	2 (15,4 %)	0 (0 %)	0 (0 %)	0 (0 %)
Available scientific laboratories	11 (84,6 %)	1 (7,7 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
Objectivity and fairness of teachers	11 (84,6 %)	2 (15,4 %)	0 (0 %)	0 (0 %)	0 (0 %)
Informing students about courses, degree programs and academic degrees received	10 (76,9 %)	2 (15,4 %)	1 (7,7 %)	0 (0 %)	0 (0 %)
Providing students with hostel accommodation	9 (69,2 %)	2 (15,4 %)	0 (0 %)	0 (0 %)	2 (15,4 %)

Rate, please, how satisfied you are:

Statement	Complete ly agree	agree	Partially agree	Do not agree	Complete ly	No answer
The course program was clearly presented	10	1	1	1	0 (0 %)	-

	(76,9	(7,7	(7,7	(7,7		
	%)	%)	%)	%)		
Course content is well structured	8	3	2	ĺ	0	
	(61,5	(23,1	(15,4	0	0	_
	%)	%)	%)	(0 %)	(0 %)	
Key terms are sufficiently explained	9	3	1	0	0	
	(69,2	(23,1)	(7,7	0	0	_
	%)	%)	%)	(0 %)	(0 %)	
The material proposed by the teacher	9	4	0	0	0	
is relevant and reflects the latest		(30,8	0	0	0	-
achievements of science and practice	%)	%)	(0 %)	(0 %)	(0 %)	
The teacher uses effective teaching	8	4	1	0	0	
methods	(61,5	(30,8	(7,7)	0	0	-
	%)	%)	%)	(0 %)	(0 %)	
The teacher knows the material being		2	1	0	0	
taught.	(76,9	(15,4	(7,7	0	0	-
	%)	%)	%)	(0 %)	(0 %)	
The teacher's presentation is clear	8	4	1	0	0	
_	(61,5	(30,8	(7,7	0	$\begin{pmatrix} 0 & 0 \\ 0 & 0 \end{pmatrix}$	-
	%)	%)	%)	(0 %)	(0 %)	
The teacher presents the material in	8	3	1	1	0	
an interesting way.	(61,5	(23,1	(7,7	(7,7	0	-
	%)	%)	%)	%)	(0 %)	
Objectivity in assessing knowledge,	8	3	1	1	0	
skills and other educational	(61,5	(23,1)	(7,7	(7,7	(0 %)	-
achievements	%)	%)	%)	%)	(0 /0)	
Timely assessment of students'	8	3	1	1	0	
educational achievements	(61,5	(23,1)	(7,7	(7,7	(0 %)	-
	%)	%)	%)	%)	(0 /0)	
The teacher satisfies my	7	4	2			
requirements for personal	(53,8	(30,8	(15,4	0	0	_
development and professional	(33,6 %)	(30,0 %)	(13, <del>4</del> %)	(0 %)	(0 %)	
formation	,	70)	70)			
The teacher stimulates student		4	1	1	0	
activity	(53,8	(30,8	(7,7	(7,7	(0 %)	-
	%)	%)	%)	%)	(0 /0)	
The teacher stimulates students'	7	4	1	0	0	
creative thinking	(53,8	(30,8	(7,7	(0 %)	(0 %)	-
	%)	%)	%)	(0 /0)	(0 /0)	
The appearance and manners of the		1	1	0	0	
teacher are adequate	(84,6	(7,7	(7,7	(0 %)	(0 %)	-
	%)	%)	%)	, ,	, ,	
The teacher shows a positive attitude	9	3	1	0	0	_
towards students	_	_	_	(0 %)	(0 %)	

	(69,2	(23,1	(7,7			
	%)	%)	%)			
The system for assessing educational achievements (seminars, tests, questionnaires, etc.) reflects the content of the course		3 (23,1 %)	2 (15,4 %)	0 (0 %)	0 (0 %)	-
The assessment criteria used by the teacher are clear	9 (69,2 %)	3 (23,1 %)	1 (7,7 %)	0 (0 %)	0 (0 %)	-
The teacher objectively evaluates student achievements	9 (69,2 %)	3 (23,1 %)	1 (7,7 %)	0 (0 %)	0 (0 %)	-
The teacher speaks a professional language	8 (61,5 %)	4 (30,8 %)	1 (7,7 %)	0 (0 %)	0 (0 %)	-
The organization of education provides sufficient opportunity for sports and other leisure activities	11 (84,6 %)	1 (7,7 %)	1 (7,7 %)	0 (0 %)	0 (0 %)	-
Facilities and equipment for students are safe, comfortable and modern	9 (69,2 %)	3 (23,1 %)	1 (7,7 %)	0 (0 %)	0 (0 %)	-
The library is well equipped and has a fairly good collection of books	9 (69,2 %)	2 (15,4 %)	1 (7,7 %)	1 (7,7 %)	0 (0 %)	-
Equal opportunities are provided to all students	9 (69,2 %)	4 (30,8 %)	0 (0 %)	0 (0 %)	0 (0 %)	-

Other problems regarding the quality of teaching: 0 answers